April 2023

Direct Procurement for Customers – Technical discreteness guidance

Ofwat

Technical discreteness guidance

About this document

The document provides guidance for Appointees on the assessment of technical discreteness of projects to be delivered by DPC in their PR24 business plans. We consulted on the draft guidance in February 2023 and hosted a workshop with water companies in March 2023. We are grateful to those who responded for their inputs and have reflected much of the feedback in the guidance.

This document supersedes any prior guidance or briefing notes issued by Ofwat in relation to technical guidance of DPC projects.

Contents

1. Introduction

As part of our 2019 price review (PR19) methodology, we introduced Direct Procurement for Customers (DPC). We set out that we expected water company business plans to consider DPC where this was likely to deliver the greatest value for customers. DPC promotes innovation and resilience by allowing new participants to bring fresh ideas and approaches to the delivery of key projects.

This process requires water companies to competitively tender for services in relation to the delivery of certain large infrastructure projects, resulting in the selection of a third-party competitively appointed provider (CAP). The CAP would design, build, finance, (and in some cases operate and maintain) infrastructure of the project. The initiative has the potential to provide customers with significant benefits by promoting competition in monopolies with an aim of delivering large infrastructure projects at a competitive market price.

For PR19, companies were required to assess the suitability for DPC by using three tests.

1. Expected size – based on whole life total expenditure (totex), is the project estimated to be over £100million?
2. Is the project suitably discrete that it would enable a third party to deliver and operate?
3. Value for money (VfM) assessment.

We also provided guidance for companies to consider when assessing whether a project may be suitably discrete for DPC.

For PR24 DPC will apply by default for all discrete projects above a size threshold of £200m whole life totex. This is consistent with the approach set out in our final methodology and applies to all parts of the water and wastewater value chain, apart from bioresources. Ofwat will reserve the right to explore the use of DPC for major projects below this size threshold where it may offer value for money for customers to do so.

For PR24 companies will:

- Identify all schemes that are over £200m of whole life totex; and
- Assess the extent to which these schemes are discrete, using our updated technical guidance.

We no longer require a VfM assessment of delivery via DPC compared to the in-house counterfactual at this early stage in the DPC process.

We consulted on the draft technical discreteness guidance in February 2023. Following engagement and feedback from water companies we are publishing our final guidance. We expect water companies to use the updated guidance in their PR24 business plans and within RAPID schemes.

2. Technical discreteness

Technical discreteness looks at the extent to which the specific characteristics of a project may affect its suitability for DPC. It assumes that the more separate a project is from a company's existing network/operations, the more suitable it is to be designed, built, maintained, and operated by a third party CAP. Technical discreteness is a spectrum – with at the one end, wholly independent, separate projects and, at the other end, projects that are heavily integrated with existing assets and operations. Most DPC projects are likely to sit between the two extremes.

2.1 Approach and guidance at PR19

For PR19, companies (also referred to as 'Appointees') were required to consider DPC for discrete, large-scale enhancement schemes expected to cost over £100 million, based on whole life total expenditure (totex).

In December 2017, Ofwat commissioned a report from KPMG on the technical issues appointees should consider when determining whether a project may be suitable for DPC. We had regard to the guidance provided by KPMG (among other considerations), when assessing the case that appointees made in their business plans, for whether a project that is above the £100m totex threshold was technically suitable for DPC.

KPMG developed a framework of technical criteria to consider in assessing whether a project is likely to be appropriate for the DPC model. KPMG identified several criteria that may affect whether a project delivered by DPC will deliver benefits for customers compared to in-house delivery that were used within the PR19 assessment.

In addition to assessments at PR19, Strategic Resource Options (SRO) proceeding via the RAPID gated process have also been required to assess the suitability of delivering the SRO via DPC.

In preparation for PR24, we have undertaken a review of the PR19 guidance and whether it remains fit for purpose. We requested Jacobs to carry out a review and advise us on developing revisions to the guidance as necessary. The review included a joint workshop between Ofwat and Jacobs which identified concerns about the existing PR19 guidance and how companies were applying it.

For example, the workshop identified concerns that:

- parts of the guidance did not reflect Ofwat experience to date on DPC – such as the type of assets the guidance concluded may be more or less suitable for DPC;
- companies took different approaches to applying the PR19 guidance and many did not home in on the specific risks that could act as a barrier to DPC; and
- companies did not consider whether there were commercial arrangements that could satisfactorily mitigate the risks identified to overcome any barriers.

As a result, Ofwat and Jacobs concluded that a more substantial revision to the guidance was necessary to ensure it remains effective, reflects learning from DPC project development since PR19 and supports our PR24 policy of DPC by default.

2.2 Updated technical guidance

2.2.1 Key messages

Jacobs initial review concluded that the existing PR19 guidance could have been clearer in setting out the regulatory and commercial expectations where companies are developing projects for DPC. Whilst it did recognise that any scheme could be procured through any means, the guidance did not reflect current understanding of what might be achieved through commercial arrangements and what is seen elsewhere internationally on DBFO[1], DBFM[2] and DBFOM projects[3].

Building on the review findings, Jacobs developed three simple tests to consider in assessing whether a project is less suitable for the DPC procurement model. These tests have a 'yes' or 'no' response. If the test responses are 'no' then the project will be considered suitable for DPC. There are three tests: **Programme Scalability Test, Construction Risk Test and Operations & Maintenance Risk Test.**

The intention of the alternative approach is to create a simpler, more focussed assessment and to facilitate engagement with companies around the risks that may mean a project is not suitable to be delivered under DPC. We provide two examples of potential DPC schemes which compare the application of the PR19 discreteness assessment with the new revised tests in Appendix A.

2.2.2 Programme Scalability Test

The **Programme Scalability Test** is a test of size. The objective of the test is for companies to demonstrate to Ofwat how they have sought to maximise the added value of DPC through application of the test to all relevant assets. The aim of the test is to encourage water companies to consider where a system of assets; or a number of projects with similar characteristics; proposed for delivery over one or more successive control periods could be combined where whole life totex of the combined or bundled system of assets meets the test threshold. We provide further information on the interpretation of the terminology within the programme scalability test on page 7 of this document.

This test applies for projects regardless of whether they separately meet the threshold of £200m whole life totex.

[1] DBFO – Design, Build, Finance, Operate
[2] DBFM – Design, Build, Finance, Maintain
[3] DBFOM – Design, Build, Finance, Operate, Maintain

Programme Scalability Test: *For individual projects or assets, is the sum of the whole life totex for the single project or combined projects/assets proposed by a water company over one or more successive control periods less than £200m?*

Response:
▪ *Yes – combined projects and/or assets in proposed programme do not meet the whole life totex threshold for consideration for DPC*

▪ *No – either single project or combined projects and/or assets in proposed programme meet the whole life totex threshold for consideration for DPC*

When applying the programme scalability test, water companies are required to demonstrate to the satisfaction of Ofwat, why they are unable to amalgamate a system of assets, or similar small projects over one or more control periods to create a programme of over £200m in value. It is expected that companies should consider bundling schemes, even when individual projects are over £200m to provide even more cost-effective solutions.

All programmes that meet the programme scalability test with a whole life totex programme value of at least £200m, will then be considered for the other two tests, namely the construction risk test and the operations and maintenance risk test.

Interpretation of Programme Scalability Test

Similar characteristics

When assessing if assets have similar characteristics, companies should make an assessment on the type of assets that could be bundled together. Companies should consider if the assets which are being considered to be bundled have similar construction requirements/risk profiles and whether the work is repeatable. If so, bundling the assets may create the opportunity for economies of scale and may deliver best value for money, for example, bundling several or more water recycling plants in one package. Another example is whether the programme of assets has similar timing requirements and if the driver or need for the assets align across the bundle. We also consider that assets which are more likely to lend themselves to being delivered by DPC are those assets which do not have a relatively short economic life.

The company's assessment should look at packaging projects which result in easily deliverable and executable DPC projects. For example, if a DPC project involved the delivery of a new transfer or treatment asset (itself exceeding the size threshold) which was intended to integrate with an existing transfer asset in need of capital maintenance, it might be possible to package the delivery of the new asset along with the operation and maintenance of the existing asset to create a larger package of works.

When defining a system of assets, companies should assess the integrated assets, where the delivery and operation of the assets are interlinked. For example, a new reservoir is likely to have associated abstraction assets, water treatment works and transfer pipelines. We would expect companies in the first instance to consider these as a system of assets and assess them as a single project against the technical discreteness tests.

Companies should assess if the bundle of assets have a geographical relationship that means delivery via DPC could achieve better value for customers.

For example, the HARP programme will see six tunnelled sections (approximately 50km of the overall length) of the aqueduct replaced. Each tranche of the project has varying aspects such as tunnel, conduit and single or multi-line siphons, however grouping the six sections meets the programme scalability test and will be developed as a single programme. The overall programme has similar characteristics, timing requirements, a multi-AMP construction period and repeatable construction requirements.

Successive control periods

When considering the programme of works, we expect groups of assets to be selected where they may have a similar delivery timescale but where construction may span over multiple AMPs. Bundling the projects may be sensible option when taking all factors into consideration. For example, a number of reservoir projects with similar delivery timelines which may have construction periods of 8-10 years.

Large programmes of small, low value assets

We encourage companies to consider bundling programmes of assets within their business plan submissions. However, companies should consider whether it is appropriate to include large programmes of smaller assets, such as smart metering and river water quality works that may have shorter lifespans than large assets such as reservoirs or treatment works. The assessment should review if it is appropriate for a long-term contract comprising assets where the speed of change in technological approach is considerable.

Timescales

We recognise companies may have deadlines (imposed by third parties) to deliver projects that may make delivery via DPC difficult. Where this is the case, we do not expect companies to rule DPC out, but companies should provide evidence within their assessment why the project cannot be delivered via DPC in the timeframe required, and that the project deadline is immovable.

2.2.3 Construction Risk Test

The objective of the **Construction Risk Test** is for companies to clearly identify the construction risks associated with a single or programme of projects and consider whether and how construction risks can be effectively transferred to the CAP.

In the UK water industry, companies typically outsource all construction projects, which includes risk around delivery of the project. Most projects can be developed to allow the transfer of construction risk and therefore we consider that such projects are capable of being undertaken by a CAP. We accept that companies must assess the construction risk and the ability to transfer risk on the best information that is available at a point in time. We further recognise that in a small number of instances, there may be project-specific issues which may make transferring construction risk to a CAP prohibitive. We therefore have included a construction risk test to consider this issue.

Construction Risk covers events faced during the construction phase and the ability of a third party to deliver its obligations in relation to those events. In practice in the UK water sector, it is related to events such as where existing assets cause significant interface issues which cannot be overcome by contract or mitigated through other means. For example, where a project proposes to connect to existing operational assets or where planned work is being carried out very near to company's operational assets, these are more complicated than business as usual interface issues. It could result in significant additional costs for the third party and/or impact the operability of the Appointee's existing assets.

Construction Risk Test: *Is there any significant reason why most construction risks cannot be effectively transferred to the CAP and/or managed or mitigated through contractual arrangements, or by adapting the project scope for delivery by DPC?*

If the response to the Construction Risk Test is yes – that indicates, some or all of the project or programme may be unsuitable. Where the response is yes, we expect companies to consider what parts of the project are suitable for delivery by DPC, for example, some parts of the scheme such as interface works may be able to be constructed by the CAP but transferred back to the water company on commencement of operations.

For the application of the construction risk test, companies are required to demonstrate to the satisfaction of Ofwat, why the third party may face events that would cause significant interface issues which cannot be overcome by contract or mitigated through other means.

Companies should provide evidence to explain why the risk transfer isn't suitable for DPC or could be cost prohibitive, and how the risk would be managed through the alternative in-house proposal. We would also expect a company to provide evidence on whether the issue could be resolved by reducing the scope of the project that is included in DPC and then reapplying the scalability test.

Given the complexity of construction risk we recognise in some circumstances it may limit the ability to deliver a project via DPC. As an example, we have set out a case study in Appendix A.

2.2.4 Operations and Maintenance Risk Test

Jacobs have developed a single test to consider **Operations & Maintenance risk** and the ability to transfer this risk to the CAP. The objective of the test is for companies to assess the ability to transfer the maintenance and/or operations to the CAP. And where unable to do so, provide clear and sufficient evidence as to why it cannot be transferred.

The **Operations & Maintenance risk** covers cases where maintenance and/or operations of the asset cannot be effectively transferred to a third-party provider . This may be because the CAP would not be able to deliver the required volume of services to be made available for use when needed, or would not be able to meet quality standards specified in the contract, or where certain regulatory functions of the appointee or a regulator cannot be exercised by or in relation to a CAP. In most cases, we expect the operations and maintenance risk to be able to be transferred to the CAP and managed through contractual arrangements, however, it is recognised that in a small number of instances, there may be project-specific issues or barriers identified which may make transferring operations and maintenance risk to a CAP prohibitive.

Operations & Maintenance risk test*: Is there any significant reason why the maintenance, and/or operations of the asset cannot be effectively transferred to the CAP and or managed or mitigated through contractual arrangements?*

If the response to the Operations & Maintenance risk test is yes – that indicates some or all of the project or programme may be unsuitable for DPC.

All schemes passing the Operations & Maintenance risk test with a 'No' response will be considered suitable for DPC by default (assuming the scalability and construction risk tests have been met). Where the response is yes, Ofwat expects companies to consider what parts of the project are suitable for delivery by DPC, for example, some parts of the project such as interface works may be able to be constructed by the CAP but transferred back to the water company on commencement of operations. While for other projects, a design, build, finance, transfer or design, build, finance, maintain form of contract may overcome issues identified by the Operations & Maintenance risk test. Where only parts of the project may be suitable for delivery by DPC, the Programme Scalability Test should be reapplied.

When applying the Operations & Maintenance risk test, water companies are required to clearly demonstrate to the satisfaction of Ofwat, why the project or programme cannot be considered DPC by default under this test and explain the risks that are unable to be transferred to a CAP to manage.

We have set out our views on common Operations & Maintenance issues that companies have raised in the consultation in the box below.

Operations and maintenance in Water Treatment

There may be circumstances and project characteristics that limit the extent to which operations can be transferred to a third-party provider, such as regulatory limitations (from regulators other than Ofwat).

In such circumstances companies should make the case for DBFM under the test, clearly identifying the characteristics and risks that prevent the transfer of operations. Where operations are excluded, the expectation is that maintenance (particularly planned/long-term maintenance) shall be provided by the CAP within the DPC project.

There may be circumstances and project characteristics that limit the extent to which long term maintenance and operations can be transferred to a third-party provider. In such circumstances companies should make the case for a Design Build and Finance (DBF) approach under the test, clearly identifying the characteristics and risks that prevent the transfer of maintenance and operations.

2.2.5 Application of tests

For the assessment of the three tests, we expect companies to provide a clear summary of how each test was applied and the outcome. Where a company concludes that all or part of a project is not suitable for DPC, we would expect the company to provide us with a summary of the outcome of the tests and any evidence that supports this. summary i.e. site plans and/or pictures.

Companies are not required to pass all three tests for the project or bundle of projects to be designated as DPC at PR24, for example, a project may meet the programme scalability test and construction test but may not pass the operations and maintenance test and could still be considered a DPC project. As discussed in section 2.2.4, companies should consider what parts of the project are suitable for DPC and reapply the programme scalability test to ensure the whole life totex threshold of £200m has been met.

Where a project or programme of projects is identified as suitable for DPC but the characteristics change so that DPC is no longer the most suitable option, companies may trigger the bespoke interim determination provisions for DPC projects provided for in its licence. Our DPC guidance[4] published March 2023 includes further information on DPC licence conditions including the arrangements for DPC interim determinations.

[4] Guidance for Appointees delivering Direct Procurement for Customers projects - Ofwat

Examples of operations & maintenance issues and our suggested approach

Operating works on a company site
There may be examples where new assets are proposed to be built on existing sites e.g. water reuse plants that are connected to existing wastewater treatment works (WWTW) and are situated on existing company owned operational sites. In most cases we expect these to be capable of being operated by a CAP and that the location of the asset should not be a barrier. However, in some instances the location of the new asset may be so integrated into the existing site that this may cause an issue. In other cases, companies are proposing water recycling plants on existing operational sites and adjacent to existing WWTW assets with fewer interfaces. These are likely to be more suitable for DPC with any issues likely to be capable of being managed commercially.

Operating water treatment works (WTW) (and other drinking water treatment assets with direct supply to customers)
Where WTW (or similar assets) are being considered for delivery by DPC, it gives rise to concerns that the Drinking Water Inspectorate (DWI) may not be able to exercise all its enforcement and regulatory powers in respect of a CAP operating a WTW. We are working with the DWI and Defra on various options to resolve this issue and we expect to have a clear way forward for projects coming through PR24 and RAPID. {are any coming through RAPID?} Therefore, we do not expect companies to raise regulation of drinking water quality as an issue under the operations and maintenance risk test.

CAP reliance on the water company performing a service
For example, a water reuse plant that is reliant on the quality of the incoming final effluent. This alone would not be a reason that would prevent the transfer of operations and maintenance. Do we need to say why?

To note, we do not require submission of the full risk register or assessment for the construction test and the operations & maintenance risk tests. Companies should include a summary of:

- Why the risks identified may make the project less suitable for DPC.
- The mitigations considered for each risk.
- The outcome of why the mitigation is not sufficient to mitigate the risk.

Where companies elect to use DPC below the £200m threshold at PR24, this is at their discretion, and we would expect the company to provide a clear, well evidenced summary as to why the project is discrete and delivers value for customers compared to an in-house delivery approach.

Technical suitability shall continue to be reviewed by Ofwat throughout stages 1 to 4 of the key submissions process. Guidance for Appointees in using DPC is provided in the document 'Guidance for Appointees delivering Direct Procurement for Customers projects consultation' – Ofwat March 2023.

Appendix A

Case study

This case study sets out two examples of potential DPC schemes and compares the application of the PR19 discreteness assessment with the new revised tests.

Scheme 1

In this scheme the company has proposed to deliver a new Tertiary Treatment Plant (TTP) at an existing wastewater treatment works. The TTP is part of a wider 'put and take' arrangement, where water is discharged into one part of the river and a new abstraction point is delivered upstream. The cost estimates for the whole project including the new abstraction point and associated pipeline are c.£250million.

Due to the lack of available land at or near the existing site (it is surrounded by housing), the company is proposing to build the TTP above the existing, operational storm tanks. The treatment works require continuous operation during the construction of the new TTP. This will have several impacts on the project:

- construction would need to be carried out in conjunction with BAU operations on the existing treatment works site. This would make it difficult to construct the TTP above the storm tanks and will impact the ability for a third party to take on risk around costs and time.
- the limited space for construction storage and logistics on the site creates issues around lack of storage solutions for plant and materials which would rely on just-in-time deliveries and complicated interdependencies between the DPC CAP's construction activities, and the treatment works site operations.

The company also notes the complexity of operating the asset in the same location as the storm tanks; In addition, a third party's ability to meet performance standards will be heavily dependent on the water company's ability to meet quality standards prior to undergoing tertiary treatment.

Under the PR19 assessment, the company determined that construction of the new TTP does not pass the discreteness test for the following reasons:

- The site is extremely constrained, and is completely surrounded by suburban housing, therefore expansion is not a viable option.
- The integration of new works with the existing site would create frequent interactions between the CAP's network and the Appointee's need to maintain BAU on the existing site.
- Due to restricted space, there is limited space for construction storage and logistics which would create complex and difficult to manage interdependencies between the DPC CAP's construction activities and the existing operations on the site.

The company then assesses whether the rest of the project is suitable for DPC, however, as it now falls below the size threshold the company concludes the project is not suitable for DPC.

When applying the new tests, the outcome for Scheme 1 is summarised below. While the table summarises the outcome, we would expect more information from the company on the specific risks that cannot be transferred and why.

Programme scalability test	No, whole life totex is greater than £200million threshold – *Suitable for DPC*
Construction risk test	Yes. Construction risk for TTP is not able to be transferred. Have considered descoping asset and have retested under programme scalability test. Remaining project no longer meets programme scalability test. Conclusion: *Not suitable for DPC*
Operations & Maintenance risk test	Yes. Based on the difficulty of operating a TTP on top of a water company's operational assets. Complexity of commercial arrangements due to a third party's performance being dependent on the water company is however a risk that could be transferred to a third party and alone would have not prevented the project being delivered by DPC. Have also tested whether procuring only operations and maintenance is viable. Unable to transfer full operations and maintenance to a third party due to operation of TTP on top of existing assets. Conclusion: *Not suitable for DPC*

The overall conclusion under the new tests is that Scheme 1 is not suitable for DPC – the same outcome as for the PR19 tests.

Scheme 2

In this scheme the company has proposed a water recycling plant on an existing operational site, which is adjacent to existing WWTW assets. The site is located in an urban/sub-urban environment which may limit location of assets and construction methods. The cost estimates for the project are c.£300million.

Under the PR19 assessment, the company has assessed that it is not suitable for DPC and noted that there would be commercial complexity:

- Due to a third party constructing and operating the project near to existing assets.
- Interfaces with existing assets in terms of construction and operations e.g. delivering connections to operational assets; and also the CAP will be dependent on the performance of the water company's water treatment works

When applying the new tests, the outcome for Scheme 2 is:

Programme scalability test	No, whole life totex is greater than £200million threshold – *Suitable for DPC*
Construction risk test	No. Interactions and location of new asset close to existing site can be mitigated through DPC contract

	Connections to existing assets can be delivered through the CAP but some interface assets may need to transfer back to the water company on operations – *Suitable for DPC*
Operations & Maintenance risk test	No. Dependency on water company's performance and location of operating new asset can be managed through commercial arrangements – *Suitable for DPC*

Summary of case studies

PR19 guidance	**Scheme 1**	**Scheme 2**
Project size	✓	✓
Stakeholder interactions and statutory obligations	✓	✓
Interactions with the new network	×	×
Contributions to supply/capacity and ability to specify outputs	✓	✓
Asset and operational failures	✓	✓

New guidance	**Scheme 1**	**Scheme 2**
Programme scalability test	✓	✓
Construction risk test	×	✓
Operations & maintenance risk test	×	✓

For scheme 1 the PR19 guidance and our new guidance reaches the same conclusion that the scheme is unlikely to be suitable for DPC. However, for scheme 2, the new guidance enables a clearer focus on the specific risks and whether they can be managed commercially. As a result, scheme 2 is considered suitable for DPC.

Glossary

CAP	Competitively Appointed Providers
Capex	Capital Expenditure
DBFM	Design Build Finance Maintain
DBFO	Design Build Finance Operate
DBFMO	Design Build Finance Maintain Operate
DBF	Design, Build and Finance
DPC	Direct Procurement for Customers
PFI	Private Finance Initiative
PPP	Public-Private Partnership
PR19	2019 Price Review
PR24	2024 Price Review
SIPR	Specified Infrastructure Projects Regulation
SRO	Strategic Regional Option
Totex	Capital Expenditure + Operational Expenditure
VfM	Value for Money
WTW/WSW	Water Treatment Works / Water Supply Works
WWTW	Wastewater Treatment Works

Ofwat (The Water Services Regulation Authority) is a non-ministerial government department. We regulate the water sector in England and Wales.

Ofwat
Centre City Tower
7 Hill Street
Birmingham B5 4UA
Phone: 0121 644 7500

This document is also available from our website at www.ofwat.gov.uk.

Any enquiries regarding this publication should be sent to mailbox@ofwat.gov.uk.

OGL