

13 December 2017

Trust in water

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

**Appendix to Chapter 7:
Targeted controls, markets
and innovation: direct
procurement for customers**

www.ofwat.gov.uk

ofwat

Contents

1	Summary	2
2	Guidance on identifying projects for DPC	3
3	DPC procurement principles	10
4	DPC contract principles	14
5	Cost assessment	20
6	DPC licence conditions	22
7	Contingency arrangements	24
8	Updated impact assessment	26

1. Summary

Applicability to England and Wales

Our PR19 final methodology for direct procurement for customers **applies to both** companies whose areas are wholly or mainly in England and companies whose areas are wholly or mainly in Wales. Direct procurement for customers has the potential to benefit customers by providing an option for delivering the largest and most expensive new assets at lower cost, and allows scope for greater innovation, allowing new providers to bring new ideas. Our policy reflects the UK and Welsh Governments' strategic policy statements relating to companies whose areas are wholly or mainly in England, and to companies whose areas are wholly or mainly in Wales, respectively.



This appendix sets out our PR19 methodology for direct procurement for customers (DPC) and supplements the information on DPC which we set out in chapter 7, (targeted controls, markets and innovation: direct procurement for customers). We have determined our PR19 final methodology after fully considering the views expressed by respondents to our [draft methodology proposals](#), published in July 2017.

We set out further detail on a number of policy areas.

- In section 2, we provide additional guidance on identifying suitable projects for DPC.
- We have refined the common set of procurement and contract principles for DPC. These are set out in sections 3 and 4.
- We set out arrangements for cost assessment in section 5.
- We will change the appointee's licence to implement each DPC project. We outline the proposed licence changes in section 6.
- We set out contingency arrangements in the event that a procurement process under DPC proves unsuccessful in section 7.
- We have updated our impact assessment. This is set out in section 8.

2. Guidance on identifying projects for DPC

2.1 Technical guidance

We have commissioned a report from KPMG¹ on the technical issues appointees should consider when determining whether a project is suitable for DPC.² We will have regard to the guidance in this report (among other considerations), when assessing the case that appointees make in their business plans, for whether a project that is above the £100m totex threshold is technically suitable for DPC.

KPMG concluded that there is not “any particular characteristic that would definitively suggest that it would clearly be inappropriate for companies to bring projects forward for delivery under the DPC model.” However, certain projects’ characteristics could make a DPC contract uneconomic compared with a baseline delivery approach.

KPMG identified a number of technical criteria that may affect whether a project delivered by DPC will deliver benefits for customers compared with a baseline delivery approach. For the purposes of identifying a discrete project these include:

- Limited economies of scale and scope with the rest of the appointees’ network system (or where such economies could be maintained through contracts).
- Simple or limited, well understood and manageable physical and operational interactions with the appointees’ network.
- Assets with capacity that is shared by multiple appointed companies.
- Assets that are more ‘passive’ and are not actively managed as part of the overall system.

Additionally, KPMG highlighted other relevant factors to consider when assessing suitability for DPC, including:

- Manageable interactions with stakeholders.
- The ability to specify outputs relating to contribution to supply and/or capacity.
- The impact of asset and operational failures.

¹ [Direct procurement for customers: technical review](#)

² This is an independent report by KPMG, commissioned by Ofwat. It does not necessarily reflect the views of Ofwat. We will have regard to the guidance in the report, but we are not bound by its findings.

The report also discusses technical risks that exist at each stage of the project lifecycle. Appointees should review these general technical characteristics, along with any project-specific ones, to determine the likely benefits from progressing a project as a DPC project at PR19.

2.2 Commercial guidance

Since we published our draft methodology proposals in July 2017, we have considered consultation responses, engaged more with stakeholders³ and commissioned PA Consulting to fully review our commercial guidance and contract and procurement principles.

In this section we set out our commercial guidance about:

- the threshold for consideration – that is, at what point it is worth investigating whether a project should be progressed through a DPC approach;
- the possible tender models; and
- how appointees should assess whether or not a project would provide value for money under a DPC approach.

We have refined and clarified a small number of aspects of our procurement and contract principles, and these are set out sections 4 and 5.

2.2.1 Threshold

A number of respondents to our consultation suggested that our proposed threshold – £100 million whole-life totex – might be too low to realise significant gains for customers from financing. While not all projects that meet this threshold will necessarily be suitable for DPC, we expect appointees to use this threshold as a trigger for exploring DPC as an option and (providing it is appropriate from a technical perspective) assessing the value for money of DPC against a baseline delivery approach.⁴

³ Ofwat, 'Direct procurement for customers industry workshop notes', October 2017

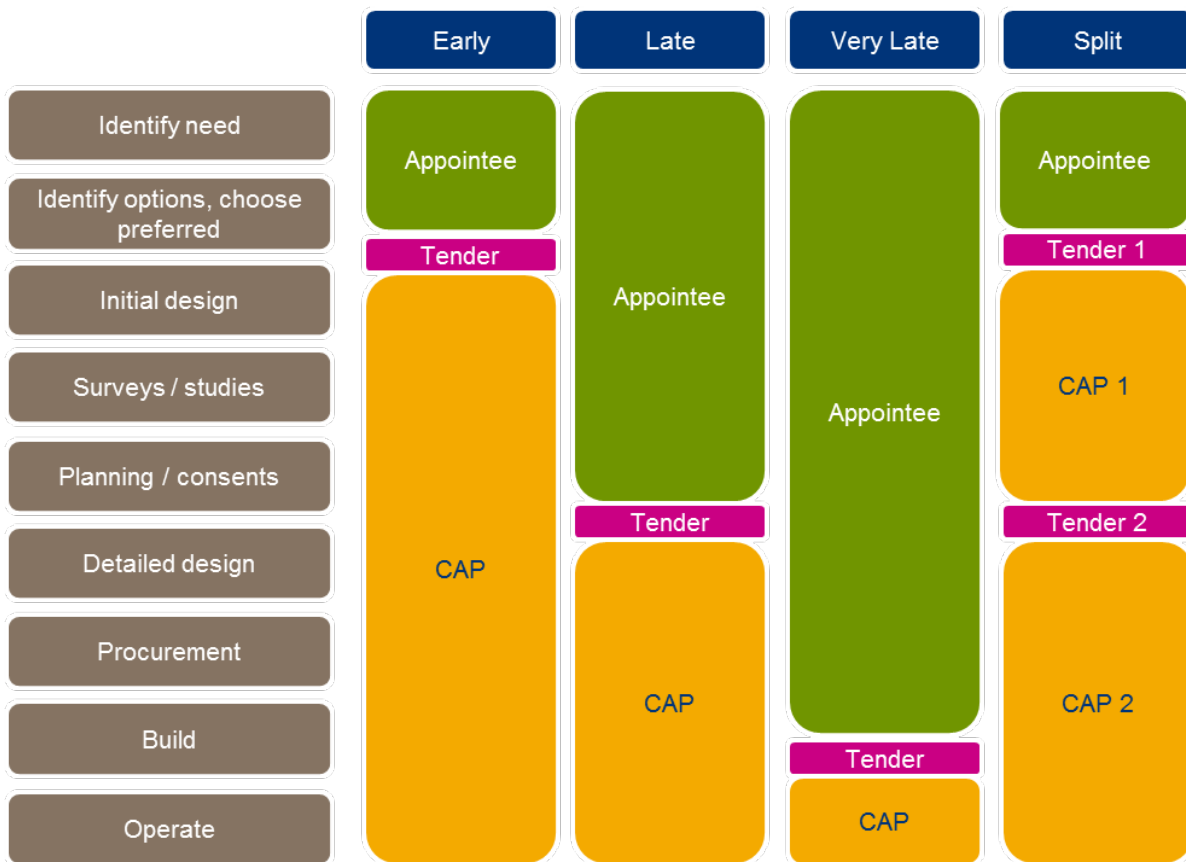
⁴ In circumstances where an appointee wishes to put forward a project for DPC that sits below the £100m totex threshold, then provided it can clearly demonstrate robust customer savings and the project meets other elements of the guidance, we may consider this at the initial assessment of plans.

As our impact assessment (section 8) recognises, the case for a DPC approach for projects close to the £100 million whole-life totex threshold, may be more marginal than for higher value projects in some cases. Nevertheless, we expect appointees to provide the best value for their customers in all projects and to explore the available options to ensure this.

2.2.2 Tender models

In our draft methodology proposals, we recognised that there is scope to tender at different stages in the project lifecycle, and this gives rise to a range of possible tender models. We consider that all models have the potential to drive significant customer benefits, though each model would focus competitive pressure in different areas. Different project types may lend themselves better to different tender models. The choice of tender model is for appointees to decide. However, we expect appointees to justify their choice of tender model in their business plans, and explain how it provides the best value for customers compared to their other options. As part of our initial assessment of plans, we will consider whether the tender model proposed for each project will deliver the best value for customers.

Figure 9.1 – Simplified representation of different tender models⁵



2.2.3 Assessing value for money

DPC provides a default approach to progressing capital projects, where whole-life totex exceeds £100 million. We have asked appointees to provide well-reasoned and well-evidenced value for money analyses to support decisions about whether or not they will use DPC for each relevant project. For PR19 we are not providing a pro forma for this analysis. It is for appointees to determine how best to undertake the value for money assessment, and compare DPC with a default (in-house) delivery approach, and present it in their business plans. However, we set out below some guidance on using a business case approach for considering large projects which should support development of value for money assessments.

We expect each suitable project will be explored through a robust and iterative business case. Developing large projects through a business case approach will

⁵ CAP stands for competitively appointed provider.

provide appointees with a decision making framework to identify the best value approach to delivering the project and an audit trail to support their decision. Using a business case approach will enable appointees to compare DPC with in-house delivery and identify which of these two delivery options provides optimal value for customers. Where appointees conclude that DPC will provide the greatest benefit to customers, the business case will also help appointees identify the best approach to tendering the project (for example whether to use an early or a late tender model). Indeed, the procurement process should be run in parallel with the development of the Final Business Case.

To help appointees understand our expectations better, we refer to the [Five Case Model](#), HM Treasury's standard for the development of business cases. Appointees are not required to use this approach, but we would expect whatever business case approaches they use, to cover largely similar principles and processes, and to focus on optimal value for customers.

In the Five Case Model, stakeholders and relevant experts, view decisions collectively under the guidance of the project's senior responsible owner. The decisions are viewed through five 'lenses' (which we illustrate where appropriate with DPC examples):

- **strategic case** – does it meet strategic and operational needs? A clear statement of the key objectives, business needs, and the potential scope and service requirements;
- **economic case** – how appropriate is each option in terms of critical success factors and investment objectives? Details the economic appraisal, including risks, and shows which option offers the optimal customer value;
- **commercial case** – how attractive is the potential transaction or procurement approach to those interested in becoming competitively appointed providers (CAPs)?;
- **finance case** – how affordable is a particular scheme, given the agreed funding envelope and the company's financial standing/budgetary capacity? In the water and wastewater sector, we would expect the finance case to consider the accounting implications of DPC; and
- **management case** – how achievable is it to go from the start, to a successful procurement, to a successfully managed long-term contract? A clear plan to be provided by the appointee on how the DPC project can be successfully delivered.

Though a business case is a single document, it goes through a series of stages as the evidence builds, iterating to a final or full business case document. The Five Case Model covers:

- programme-level business cases – which, at the very early stages, seek to make the case at a high level for a pipeline of business cases; and
- project-level business cases. For small, non-contentious projects these might be a single stage, while major projects may involve a three-stage evidence building process from strategic outline case (SOC), through outline business case (OBC), to full or final business case (FBC).

The SOC stage concludes with a decision about whether to proceed with a detailed economic appraisal. The OBC stage concludes with a decision about whether to commence a procurement process. The FBC should reflect the contract that has been negotiated, and this stage concludes with the decision about whether to sign the contract. At each of these three stages the business case document becomes more detailed. However, each of the five cases will develop at different rates. For example, at the SOC stage the document is mostly focused on the strategic case and early economic analysis, but by the FBC stage, all five cases must be completed with relevant evidence and full analysis to support the investment decision about to be made.

If at any time it becomes clear that the project is not delivering the anticipated customer value, it is appropriate to stop and reconsider. The business case provides the evidence to support such a decision. The management and mitigation of risk are key considerations throughout the development of a business case and risk is covered across all five cases.

The significant economic appraisal forms part of the economic case. Given the importance of the economic appraisal, we provide the following best practice principles:

- Economic appraisals should be based on the relevant costs and benefits to government, the public sector and society. ‘Relevant’ in this instance means all those costs and benefits that can be affected by the DPC decision. All the shortlisted options should be valued and the net benefits and costs calculated.
- The costs and benefits should cover the useful lifetime of the assets, or the contractual period for the purchase of the service outputs and outcomes.
- The costs and benefits should be based on market prices, wherever possible, and reflect the best alternative uses that the goods, assets and services could be put to (the opportunity cost).
- The wider social and environmental costs – for which there is no market price – should also be taken into account.
- The sources and assumptions underlying each cost and benefit line in the economic appraisals must be explained in full in an accompanying appendix.

- All cost and benefit estimates must be stated in the same base year (defined as 'year 0') at a common price level. The base year should be the same for all options.

3. DPC procurement principles

In our draft methodology proposals we set out draft principles for a DPC procurement process. We have considered feedback from stakeholders in response to our draft methodology proposals and at an industry workshop held in October. Our intention is for appointees to take ownership of delivering DPC. The principles we have developed provide a framework for them to do this.

Table 9.1 presents the principles we expect appointees to follow in relation to the DPC procurement process. We have established a template that is compatible with any tender model, company and project type. These principles will promote value for money for customers by:

- making DPC a repeatable proposition that minimises transaction costs and promotes interest from investors; and
- reducing the potential development costs for each project (such as the cost to develop bespoke arrangements for each company/project).

In the light of stakeholder feedback in response to our draft methodology proposals and at our industry workshop, we have made the following refinements to the procurement principles:

- We have clarified who can compete for CAP contracts, by changing the emphasis from who is able to bid, to whom the contracts can be awarded to.
- We have emphasised the importance of effective procurement and contract management.
- We have added a new principle, to indicate that appointees will need to engage with and test the market in the early stages of the process.
- We have clarified that appointees should make sure they are satisfied that the winning bidder can deliver key contractual obligations (including those that reflect regulatory requirements).

Table 9.1 – Principles applying to DPC procurement processes

	Principle	Explanatory notes
Competitively appointed providers		
1	The contract cannot be awarded to an associated company of the appointee.	We consider there to be significant conflicts of interest if the contract is awarded to an associated company (meaning an “Associated Company” as defined in Condition A

		<p>(Interpretation and Construction) of an appointee's licence).⁶</p> <p>These conflicts may be both real and perceived. They relate both to the bidding process (where other interested parties may be dissuaded from bidding, leading to weak competitive pressure and poor value for customers) and to the management of the contract (where the sole focus should be achieving the best outcome on behalf of customers).</p> <p>DPC contracts will be used where it has already been decided that a third party (a CAP) will design, build, finance, operate and maintain infrastructure that would otherwise have been delivered by the appointee. The appointee itself will therefore never be its own CAP. It will be the procurer, and therefore a counterparty to the DPC contract.</p> <p>Appointees (and their associated companies) can compete for the DPC projects of other water companies as part of their non-appointed (ie unregulated) business.</p>
Resourcing and governance		
2	Appointees should have clear and transparent governance processes for their procurement.	<p>For DPC to be successful, appointees need to be able to run successful procurement processes, including effective decision making. Bidders will be putting their costs at risk to participate and will also expect clarity around processes and governance.</p> <p>There are risks involved in running competitive procurement exercises. We therefore expect appointees to be fully aware of the risks involved in running tenders and have structures in place to mitigate these before commencing procurement.</p>
3	Appointees should have access to the skilled resources required to carry out specialised procurement and contract management activities.	<p>We consider that specific skills are required to manage a DPC procurement process effectively. If those skills are currently unavailable in-house, appointees may need to seek them externally.</p>

⁶ An "Associated Company" means any Group Company or Related Company. A "Group Company" means any subsidiary or holding company of the Appointee and any subsidiary of any holding company of the Appointee (other than the Appointee). A "Related Company" means any company in relation to which the Appointee or any Group Company has a participating interest within the meaning of paragraph 11 of Schedule 10 to the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 or which has such a participating interest in relation to the Appointee or any Group Company.

4	Appointees should make sure they have processes in place to respond to bidders' questions and clarifications throughout the procurement process.	During the procurement process we would expect bidders to seek clarifications on the tender documents. Appointees must be prepared to respond to these as part of their processes, to mitigate the risk of bidders basing their submissions on an incomplete or inadequate understanding.
5	Appointees should make sure they have clear processes in place to manage any intellectual property bidders may reveal through the tender process.	Bidders will provide information as part of the tender process. In some cases this information may reveal details of bidders' intellectual property (eg how they propose to approach construction). Innovation is in customers' interests, so we expect appointees to put processes in place to manage bidders' sensitive information and intellectual property.
Process		
6	Appointees must adhere to the Utilities Contracts Regulations 2016 where appropriate.	We consider that the Utilities Contracts Regulations 2016 would normally apply to this type of procurement process. As contracts are likely to require negotiation, we consider that most are likely to be let under the negotiated or competitive dialogue process. It is for the appointee to consider the most appropriate process to use.
7	Appointees should standardise the process as far as possible.	Standardising processes can reduce transaction costs and build investors' interest, providing significant benefits for customers. It also provides stakeholders with transparency over the process.
8	Appointees should outline clear process timescales and use all reasonable endeavours to meet them. In doing so, appointees should consider the impact of these timescales on the bidding market.	Clear and streamlined processes will assist potential bidders. Procurement timetables will set expectations for potential bidders. In view of the significant potential costs involved for bidders, we expect appointees to maintain these timings.
9	In the early stages of the process, appointees should use market engagement and testing to establish the appetite for DPC projects. The range of possible technical solutions the market can offer should be explored.	The level of interest from the market will affect the degree of competition and the likely costs of DPC, which will be key inputs for appointees' cost-benefit analyses. Markets may offer a range of technical solutions and consideration of different approaches may increase the level of competition and increase value for customers.
10	Appointees should make all reasonable endeavours to minimise the time between appointing a preferred bidder and awarding the contract, bearing in mind the potential due diligence requirements a preferred bidder may need to complete and the appropriate standstill period.	Appointees should make sure there is enough certainty about projects when they run tenders. An efficient process before the appointment of preferred bidder stage will minimise the likelihood of reopening any of the details from the tender.
Preconstruction works		

11	Appointees should make all relevant information available to bidders during the tender process.	Bidders need access to all relevant information to be able to compile submissions. If there are omissions, these uncertainties will be reflected in the terms of the bid (eg risk premiums or reopeners). Minimising these will deliver better customer outcomes. Appointees should consider providing a data room (real or virtual).
12	Preconstruction works need to be transferable to CAPs when they are awarded the contract, or otherwise obtained in such a way as to allow CAPs to benefit from them.	If a CAP is required to take over any preconstruction works, these works should clearly be capable of being transferred. If this is not the case, this will add complexity and potentially cost to the finalisation of arrangements. Potential risk may also be priced into bidders' submissions if there is uncertainty during the tender process.
Tender specification		
13	Appointees should provide draft versions of contracts as part of tender specifications.	We consider that showing contracts to bidders early in the process will improve customer outcomes. If bidders cannot see what the contracts will look like, this may create uncertainty, which they would look to reflect in their submissions.
14	Appointees should allow bidders to comment on draft contracts in the preliminary stages.	Allowing bidders to comment on contracts may allow for more robust arrangements and deliver better pricing. It also allows appointees to clarify contract terms before selecting a preferred bidder, which limits potential negotiation at the preferred bidder stage.
Bid evaluation		
15	Appointees should have clear bid evaluation strategies and scoring systems in place before starting the procurement.	To ensure equal, transparent, proportional and non-discriminatory procurement processes, appointees need to develop robust approaches to bid evaluation. These should be developed before the tender process starts.
16	Appointees should satisfy themselves that bidders can meet the key contractual obligations (eg delivery milestones and regulatory requirements).	Appointees' evaluation strategies will need to consider a range of factors to ensure that the selected bidder is the most economically advantageous tender, not simply cost. For example, the overall deliverability of proposals is important to protect customers from the failure of a CAP or one of its contractors. Appointees need to assure themselves, through the tender process, that bidders can meet any relevant standards (eg on water quality).

4. DPC contract principles

Our regulatory strategy for PR19 puts companies and their customers at the heart of the process. This applies equally to DPC. We therefore expect companies to develop the detailed arrangements for implementing DPC. Companies will be the procurers and the clients for the services that CAPs provide. They have a responsibility, on behalf of their customers, both to run efficient procurement processes and to manage CAPs effectively over the lives of their contracts. We will hold companies to account for this, to make sure they deliver the best value for customers.

It is in this context that we have developed principles for the contracts we expect appointees to use to deliver DPC projects. We expect appointees to act consistently with these principles when negotiating DPC contracts. These principles provide clarity on our expectations for DPC projects and how customers' interests can best be protected in the process. Our intention is that these principles should, to some extent, standardise the contract model for DPC projects.

As a consequence of refining the overall proposals, there are minor changes to the contract principles set out in our draft methodology proposals:

- We have refined wording to make it clear that the design of the contract is open to be a best fit for each project. For example, we have clarified that the contract duration would be defined through market engagement.
- We have indicated that contracts should specify a terminal value for assets (linked to a prescribed condition of the asset) at the termination of the contract.
- We have clarified that contracts should require the appointee to grant approval before any change of control in the CAP.
- We have clarified that to allow the appointee to fulfil its obligations, contracts should reflect statutory or regulatory monitoring and reporting requirements.
- For the avoidance of doubt, we have written into the principles that appointees remain ultimately responsible for ensuring their statutory and licence responsibilities are fulfilled.

Table 9.2: Principles for DPC contracts

	Principle	Explanatory notes
Revenue and financing costs		
1	Contracts should generally last about 15-25 years for operation, plus a construction period.	A long-term contract is likely to attract the highest level of competition for DPC projects, because potential investors will seek long-term returns. We are not prescribing a term, as the

		<p>optimum will need to be explored as part of market engagement process. Evidence suggests contracts in excess of 25 years may not accommodate fixing debt costs up front for the duration of the contract, and so may require mechanisms to cater for refinancing costs.</p> <p>We expect appointees to consider the balance between financing terms and asset life when deciding on the appropriate contract duration for each project. Appointees should be able to test this through market engagement.</p>
2	A CAP's revenue entitlement should normally start after construction is complete, when the appointee accepts the assets.	We will normally only allow CAPs to commence earning revenue on successful completion of the assets because this aligns the CAP's interests with those of customers, and makes sure customers will only pay when they receive benefits. Though this approach raises financing risk, it is common in standalone infrastructure projects in other sectors. We would expect any appointees making alternative arrangements to be able to show evidence of benefits for, and support from, customers.
3	Revenue paid to CAPs should be fixed over the contract period, subject only to limited specified variations (eg performance incentives, specified cost or pre-agreed events).	Fixed revenue streams will ensure that the benefits of completing projects are locked in for customers over the duration of the contract. Limiting the potential to reopen any of these contract terms will make sure that customers benefit over the long term.
4	Assets should be depreciated over their useful lives, aligned to the current regulatory regime. This may mean that assets are not fully depreciated over the contract period.	<p>We consider that customers who get beneficial use of assets should pay a fair share of the costs to deliver those assets. This is a key part of our regulatory approach. We will maintain this for DPC projects.</p> <p>Many assets are unlikely to be fully depreciated by the end of the contract. In such a case, the contract would need to specify the residual (or terminal) value for the asset when the contract expires, associated with a prescribed condition of the asset.</p>
5	Revenue streams need not be indexed to the same inflation measurement used in the appointee's price controls. The appointee should use approaches that secure the best value for money for customers.	There are various possible approaches to indexation, each of which can lead to different customer outcomes. Under price controls, the regulatory capital value (RCV) is indexed to inflation, but for DPC projects there is no RCV. CAPs will be able to access both nominal and index-linked debt. We therefore do not consider that their revenue streams should necessarily be index-linked. Appointees should consider the best approach for DPC projects, which could include 'biddable indexation' (or letting the market decide the proportion of the revenue stream to index).
6	Contracts should include a provision to capture benefits for customers from any	With a competitive delivery model, there is scope to refinance project debt after financial close, typically on cheaper terms. This can arise

	debt refinancing gains during the contract life.	through changes in projects' risk profiles or in financial markets (or both). This is particularly relevant where construction risk may be priced into the initial debt terms. Where refinancing takes place, customers should be able to share in the benefits through a reduction in the CAP's contract revenue stream. These costs are likely to be driven primarily by markets, not management decisions. This approach is common in similar procurement models.
7	Contracts should include provisions to require prior approval by the appointee of any change of control in the CAP.	DPC projects will be key pieces of infrastructure delivering essential services to customers. Appointees should ensure, as far as possible, that the owners of these assets are competent. Through the tender process, appointees can consider this as part of the overall robustness of bids. However, safeguards are also required after contracts are awarded, and should be managed throughout the contract.
Risk allocation		
8	The contract should allocate risks to parties based on their ability to best manage these, unless there is good justification to allocate them differently. Overall, customers should not end up with more risks allocated to them than they would have had if the appointee delivered the project in-house.	In general, the risk profile for the appointee should be no worse than if they were delivering the project themselves, and the appointee should look to pass on the risks that CAPs can better bear so that the overall risk, or cost of mitigation, would be reduced. However, the risk allocation under a contract may need to be specified in more detail. Appointees therefore need to understand the projects' risks and the market's attitude to those risks.
9	The contract may include provisions for force majeure events (with impacts on both costs and timetables). These should be clearly defined and strictly limited, in line with good industry practice.	Wherever a contract provides the CAP relief (ie passes risks up to the appointee and potentially back onto customers), the circumstances should be tightly defined. This gives all parties clarity over the allocation of risks and mitigates the potential risk of spurious claims by CAPs after contracts are awarded.
Expiry, termination and step in		
10	The contract should clearly specify circumstances under which the appointee can step in. These should be limited to material breaches (eg regulatory non-compliance).	Given the critical nature of these assets, the appointee may need to step in – for example, to ensure continuation of supply or compliance with relevant regulatory obligations. This should be reflected in the contract, though such rights should be limited to events with a significant impact on customers, where the CAP is unable to provide a satisfactory remedy.
11	The contract should clearly specify an end date. It should specify what happens to the assets at the end of the contract. It should specify any circumstances under which the contract can be terminated	It is important to give bidders certainty about how the end of a contract will be treated. At the end of a contract, the assets may still have a useful life, in which case the appointee may retender the assets or bring them back in-house. This would be agreed with Ofwat (or the relevant regulatory authority) at the time. Where

	early. These circumstances should be strictly limited.	<p>the assets will no longer be required after the contract has terminated, the assets (or liabilities, as they may be at this point) may either remain with the CAP or be returned to the appointee. Relevant terms would need to be agreed in the contract.</p> <p>There may be circumstances where the appointee would benefit from being able to terminate the contract before the specified end date. This could occur, for example, where the CAP has not delivered the assets by a designated backstop date, or as a result of continued non-delivery of outputs over a prolonged period. To be bankable, any such provisions would need to be limited and the terms proportionate.</p>
12	Contracts should clearly outline the required asset specification at the contract end date.	Good asset management is of fundamental importance to the water sector. CAPs should put in place robust systems, policies and procedures to ensure assets are managed effectively over the contract period, and that assets are in an appropriate condition when the contract ends. To ensure this, the contract (and/or tender documents) needs to clearly specify any expected condition requirements.
13	The contract should clearly specify residual (or terminal) asset values at the designated end date, associated with a prescribed condition of the asset. It should set out how this will be paid to the CAP.	<p>To raise debt finance for the whole capital expenditure (capex) value of a project, funders will require certainty over any residual value they would receive at the end of the contract. The contract should clearly indicate this value and how it will be paid. This will mitigate the potential credit risk around residual value and lead to improved pricing terms for the project's finance.</p> <p>The appointee would need to pay the CAP any non-depreciated capex (residual value), equivalent to an RCV figure, at the end of the contract. There will be requirements related to the state of the assets at handover and the monitoring of condition throughout the assets' life.</p>
14	Contracts should clearly specify any compensation payable to the CAP under early termination scenarios.	Where a contract is terminated early, depending on the circumstances of termination, a CAP may be entitled to compensation from the appointee.
Construction programme and completion		
15	Contracts should clearly specify construction milestones and the completion date.	This would need to be specified as part of the tender process, to make sure bidders can provide appropriate proposals. The completion date will act as the trigger for the CAP's revenue. This should therefore be clearly reflected in the contract, along with any provisions which could change this date.

16	Contracts should clearly outline the acceptance requirements for assets (ie to trigger formal 'completion').	Where there are requirements related to completion (for the purpose of triggering payment), these will need to be clearly set out in the contract to provide clarity for the CAP and the company.
17	Contracts may include provisions for liquidated damages (paid either to the CAP or to the appointee) in the event of late delivery resulting from circumstances within either party's control. Where used, these should be proportionate and capped.	Non-delivery may have implications for appointees in terms of meeting obligations and providing a service for customers. Therefore, some flexibility to include liquidated damages provisions in contracts may be appropriate. Generally, however, bidders will price liquidated damages costs into their submissions, which may not be in the best interests of customers. Appointees must be able to clearly demonstrate why liquidated damages are necessary as part of a CAP contract.
Operations and maintenance		
18	Contracts should clearly specify any operational requirements, including any performance commitments the CAP must fulfil.	To make sure the appointee receives the required level of service, contracts should specify any service specifications or operational requirements. This will ensure a robust framework for the appointee to manage the CAP's performance over the contract period.
19	Contracts may include performance incentives linked to the delivery of agreed requirements. Where used, these should be capped at an appropriate amount to ensure delivery is affordable.	Financial incentives may sharpen the incentive for a CAP to deliver against the most important agreed requirements. The contract could allow for these. Capping the amount of the incentive will ensure that uncapped risk is not priced into the contract, which would not be in customers' interests.
20	In general, operational costs should be fixed for the duration of a contract. But contracts may provide for variations in operating expenditure (opex) at periodic intervals, where this is likely to drive value for customers. Where this option exists, appointees should make this clear to bidders at the start of the procurement process. Appointees should notify us of such provisions in advance of contract award.	There are potential customer benefits in maximising the scope of costs that can be fixed during the tender process for the duration of the contract. This makes sure customers are not exposed to cost variations, and mitigates the risk of bidders submitting unrealistic cost estimates to win the tender, then looking to increase these later. However, there may be factors that materially change opex costs over a long contract period. This may apply to some project types more than others. As such, some flexibility around opex may be beneficial to customers. Each opex element would need to be assessed on its merits.
21	Contracts should include terms that enable appointees to fulfil any ongoing reporting or information requirements (in particular, those required for the appointee to fulfil any statutory or regulatory monitoring and reporting).	The appointee will need the CAP to provide it with information. This could include information needed to fulfil statutory or regulatory monitoring and reporting requirements. Contracts need to include terms that allow appointees to request this information. Good asset management is imperative for both appointees and CAPs. CAPs should provide appointees with reports on any asset condition requirements outlined in the contract.

Security		
22	Contracts may require CAPs to post security against late delivery or non-delivery of assets. If used, this provision should be sized appropriately to cover relevant costs to the appointee, taking into account the potential impact on the CAP's costs if this is set too high.	Appointees face potential costs in the event of a CAP failing – including retendering or taking the project back in-house. These costs should not be borne by customers. Therefore CAPs may need to post some form of security. However, high levels of security will increase a CAP's costs, which is not in customers' interests. Therefore any security should be commensurate with the risk it is designed to mitigate.
Compliance with relevant legislation		
23	Appointees remain ultimately responsible for making sure their statutory and licence responsibilities as water and/or sewerage undertakers are fulfilled. This responsibility cannot be contracted away.	DPC should not affect an appointee's ability to comply with their statutory and licence obligations as water and/or sewerage undertakers. While they can contract out the execution of these obligations, they cannot contract out the responsibility for compliance. They must therefore ensure that they use robust contract management to ensure that their obligations are fulfilled.
24	Contracts must clearly specify all relevant statutory or licence obligations that a CAP must comply with on behalf of the appointee.	Where relevant, these obligations should be specified in the contract to give CAPs clarity on what they need to deliver.
25	Contracts may include provisions to vary allowed revenues because of changes in regulatory requirements. If used, such provisions should be limited.	Laws and regulations may change over the contract period. This would likely affect some project types more than others. Contracts need to be flexible enough to make sure CAPs are still required to deliver any necessary outputs on behalf of the appointee.
26	A CAP should be able to benefit from any relevant statutory powers of the appointee.	To deliver a project, a CAP may need to be able to use some of the appointee's powers as a water and/or sewerage undertaker, such as works powers.

5. Cost assessment

Appointees using DPC will incur costs for preconstruction activities, as well as tender or procurement activities. As with other efficiently incurred totex costs, appointees will recover these from their customers.

The CAP's costs will also be recovered from customers. DPC projects will have a specific revenue and cost recovery model to make sure all parties are protected, including customers. Appointees will not have a separate price control for project costs.

5.1 Project development costs

Appointees may recover the efficient costs they incur while developing and tendering projects as part of totex allowances for PR19 (that is, under the same price control). This would include preconstruction costs, as well as tender and procurement costs. We expect that these costs would be broadly similar to the costs appointees already incur to develop projects. We have included a separate sheet for DPC projects within the data tables for PR19.

5.2 CAP costs and arrangements

The CAP's revenue stream (for example, the project totex and financing costs that the appointee pays to the CAP) will only be finalised following the tender process. As the CAP will finance the infrastructure, as well as building and operating it, these costs would not sit in an appointee's own cost allowances or in its RCV – but we would set an allowance for the appointee to recover from its customers and pass through to the CAP.

This will require a licence change to enable the appointee to recover these additional costs, where they sit outside existing price controls. It will also give the CAP enough certainty over its cost recovery to make the DPC model financeable.

We will reflect certain aspects of the contract between the appointee and the CAP in appointees' licences. This will:

- give the CAP's investors a degree of certainty about their contractual revenue stream, minimising the credit risk and improving financing terms;

- help align, where appropriate, the requirements and performance standards on the appointee with the CAP;
- allow a way to assess any flexible elements of the contract (for example, changes in opex over time);
- clarify the allocation of risk, where required; and
- allow us to play a role in resolving certain disputes between the appointee and CAP. This may improve credit quality and therefore customer outcomes.

To do this, for each DPC project we will amend Condition B and add a new DPC licence condition for appointees to include appropriate provisions. We outline the indicative scope of the proposed condition in section 6.

6. DPC licence conditions

Appointees taking forward DPC projects will require licence changes to provide certainty for the appointee, the CAP and customers. We have set out the nature and scope of the proposed licence changes expected to be required but these are necessarily high level and indicative at this stage.

In broad terms, where an appointee notifies us in its business plan that it intends to undertake a DPC tender process, we intend to amend Condition B of its licence to enable the CAP's revenue to be recovered outside of our price controls and passed through to the CAP. Condition B will not allow the appointee to recover the CAP's revenue from customers until we have determined (following the completion of the tender exercise) the terms on which that revenue can be recovered. We will also introduce a new condition for each appointee that has signalled it will be undertaking a DPC process, to require the appointee to run the tender process in line with our procurement and contract principles. We anticipate that these licence modifications will be made around the same time as our PR19 final determinations.

Table 9.3 – Outline of DPC licence changes

Licence requirement	Explanatory notes
Specify that the appointee can recover CAP revenue (properly incurred) from customers and pass this revenue to the CAP.	This would be implemented via an amendment to Condition B. We would amend Condition B at final determination to enable the appointee to recover CAP revenue from customers and to oblige it to pay it to the CAP. Condition B will not allow the appointee to recover the CAP's revenue from customers until we have determined the terms on which that revenue can be recovered following the completion of the tender exercise. These terms will reflect contract terms agreed by the appointee and CAP which will ensure that only appropriate levels of revenue will be paid.
Requirement to use reasonable endeavours to run a tender process that achieves the best value for customers and appoint a successful bidder, in line with our principles.	This would form part of the new DPC licence condition. It will require the appointee to adhere to the relevant contract and procurement principles. It will also require the appointee to notify us if it has been unable to successfully complete the tender process.
Requirement for the appointee to adhere to specified aspects of its contract with the CAP and to obtain our consent before agreeing to changes to certain terms.	This would allow us to issue an enforceable direction to the appointee to comply with certain specified aspects of its contract with the CAP. This would be limited to key contract parameters, which will provide the CAP with certainty that the appointee will comply with those terms because we can enforce them as well. It would also allow us to

	direct the appointee not to agree to change certain terms of the contract without our consent. This could for example cover any areas where revenue varies over the contract (such as opex changes or refinancing gain-sharing) to ensure that customers' interests are protected.
Prohibition on the appointee awarding and holding a DPC contract to an associated company.	This would prohibit both the award of a contract to an associated company and any subsequent change of control of the CAP to an associated company, consistent with the contract principles.
Requirement to provide us with information throughout the tender process, and in relation to the management and termination of the contract	This will form part of the new DPC licence condition. It will oblige the appointee to provide us with any information requested in relation to the procurement, management and termination of a DPC contract.

7. Contingency arrangements

Where an appointee's value for money assessment leads to a project being taken forward under DPC, we expect the appointee to have a strong incentive to make the process a success.

To support this, we will seek an appropriate level of assurance and will have regular contact with appointees throughout the process. Where necessary, we will be able to discuss any remedial action required during the process to avoid it failing and to ensure a good outcome for customers.

There are a number of reasons a tender process might not arrive at a good outcome. These may include factors beyond the appointee's control (such as the wider economic environment), factors within the appointee's control (such as the competence with which they have run the procurement process), or a combination of both.

Where these factors are beyond the appointee's control, contingency arrangements should leave the appointee no worse off as a result of having run the process. Conversely, we are mindful that we should not create perverse incentives for the appointee to end up better off as a result of the failure of a DPC process, if the appointee could have prevented it.

It is not possible to outline contingency arrangements for every possible scenario. With an appropriate level of assurance undertaken by the appointee it should be possible to identify that no good outcome can be achieved before the tender process is completed – for example, where it is evident that there is minimal market interest. Alternatively, it could be the case that it only becomes evident at the end of the process. In any case, the appointee should keep the process under review and identify any risks and issues that are contributing to the risk of the procurement failing and discuss with us the mitigating action it is taking to manage these risks. We may seek the advice of independent reviewers to help assess why a process is proving unsuccessful and to help us identify appropriate remedial action.

We will decide on a case-by-case basis, how to proceed to make sure projects are delivered. Our decision will be determined by, and seek to address, the underlying reason(s) for the failure. The options we might consider could include (but are not limited to):

- the appointee restarting (or rerunning) the tender process, possibly following any rescoping (if required);

- the appointee contracting with a third party to rerun the tender process on its behalf (the appointee would bear the third party's costs and would not receive a totex allowance for this);
- the appointee delivering the project in-house, but then running a DPC process for the constructed assets once operational (in effect, a very late DPC process, equivalent to the early rounds of the offshore electricity transmission process in the electricity transmission sector);
- the appointee delivering the assets, with the value being adopted into its RCV at a subsequent price review.

8. Updated impact assessment

We initially assessed the expected impacts of DPC in our decision document, '[Water 2020: Our regulatory approach for water and wastewater in England and Wales](#)' (and the [associated appendix](#)) in May 2016. Because our policy design on DPC has advanced substantially since then and been further refined in the light of stakeholder feedback to our draft methodology proposals, we are now better able to assess the costs and benefits of our proposed approach, and we present an updated impact assessment.

Much of our previous impact assessment was based on the costs and benefits associated with the offshore electricity transmission (OFTO) arrangements for Great Britain. However, we now have access to better information to inform our assessment, following Ofgem's publication of '[Extending competition in electricity transmission: impact assessment](#)' for its Competitively Appointed Transmission Owner proposals ('the CATO IA'), which we did not have access to when we carried out our previous impact assessment. We have also considered new evidence available to us very recently from SHEPD's tender for the New Energy Solution for Shetland. Together, this more detailed information has allowed us to update our assessment. We have also considered evidence from the Thames Tideway Tunnel project, although we note that the scale of that project is far larger than we expect for a typical DPC project.

8.1 Counterfactual

The counterfactual against which we are assessing the impacts of DPC is that the project identified would be delivered under current arrangements. Our estimates of costs and benefits in this assessment are over and above those that would arise under the current arrangements, rather than the total costs and benefits of the project.

8.2 Benefits of DPC

We consider that DPC has the potential to introduce significant benefits. These include direct benefits through capital and operational cost savings as well as a reduction in financing costs. These benefits will be passed through directly to consumers through a reduction in bills, as compared to the counterfactual.

We also consider that DPC will bring wider benefits for customers through improvements to the accuracy of the cost estimates used in our price controls.

To estimate the cost savings of DPC, we have considered a range of available evidence on savings made under similar types of competitive exercises for the provision of infrastructure. This includes:

- the Thames Tideway Tunnel;
- evidence from Cambridge Economic Policy Associates (CEPA) – ‘[Evaluation of OFTO tender round 2 and 3 benefits](#)’ (March 2016), which assesses the benefits of OFTO tender round 2 against a counterfactual of delivery under a normal price control;
- the tender for the New Energy Solution for Shetland; and
- international comparators (such as competition to deliver electricity transmission infrastructure in North America and Australia).

None of these provide an exact match to DPC, although all have similar features. These examples have, however, demonstrated substantial savings against a counterfactual of delivery by an incumbent.

Below, we consider capital and operational cost savings, financing cost savings and overall cost savings, as well as improvements to regulation.

8.2.1 Capital and operational cost savings

We consider that DPC will focus extra competitive pressure on capital and operational costs, driving these down compared to the counterfactual scenario.

For projects in excess of £100 million, appointees are likely to tender for construction, and therefore there is some competitive pressure on costs in the counterfactual scenario. However, the DPC model allows for a whole-project approach which could lead to innovative delivery approaches – ones that would not be achieved through more narrowly scoped tenders. A wider pool of bidders is likely to be attracted to the project (over and above companies included in any “alliance” models). New parties may bring new approaches and sources of labour, which will drive further efficiency in the competitive process.

CEPA’s report demonstrated significant operational cost savings in the range of 18% to 25% (it did not provide an estimate for capex costs as projects were tendered post-construction). We consider that a similar outcome is possible for DPC projects

against the counterfactual, although the scale of the saving will depend on the weighting of opex within the overall project costs.

8.2.2 Financing

Currently, providers of debt and equity to water companies seek a specific level of risk and return that reflects the portfolio of risks a water company manages. The counterfactual for financing, would be the premium that current providers of debt and equity would seek, in order to match the altered risk profile a DPC project would bring to a water company's portfolio.

Competition may reveal new niche sources of funding for water projects, although this will not become clear until bidders begin exploring new sources of finance. However, the nature of DPC projects, with CAPs having long-term revenue certainty of perhaps up to 25 years, is likely to be attractive to a different range of debt and equity providers – ones that can tailor financing specifically to the project. The experience of the early rounds of OFTO tenders suggests that gearing ratios will differ from those in a typical price control, which may yield greater value for customers. Overall, therefore, we expect that competitive financing could deliver a more efficient and cost-effective alternative to the counterfactual.

The evidence from the early rounds of OFTO tenders bears this out. CEPA assessed financing savings of 8% to 11%. Winning OFTO bidders accessed finance from a range of sources, including some funding vehicles that were particularly focused on the development of the renewable energy sector.

8.2.3 Overall cost savings

The examples we have considered have all achieved overall estimated savings of 20% or more. Savings under the Thames Tideway Tunnel have been expressed in terms of bill impacts, with the estimated costs to customers to be around £20 to £25 a year by the mid-2020s, against a counterfactual of £70 to £80.⁷ OFTO round 2 savings have been assessed at 23% to 34% of total costs. The tender for the new energy solution for Shetland saw a difference of 32% between the winning and

⁷ [Review of the Thames Tideway Tunnel](#), National Audit Office, March 2017

reserve bid, although for unrelated factors it is not now proceeding. International electricity transmission examples have seen savings between 20% and 60%.⁸

For the initial round of tenders for DPC under PR19, bidders might include some form of novelty premium, meaning that benefits for initial projects are likely to be at a lower level. However, there is scope for substantial savings in future rounds as appointees learn from experience. Based on the experiences of public–private partnership and private finance initiative contracts, and of later OFTO rounds compared to earlier rounds, we would expect the magnitude of new savings to increase over subsequent tender rounds.

8.2.4 Improvements to the regulatory process

In the counterfactual, revenues for water companies are determined by our estimates, including estimates of the WACC. However, under DPC, the costs of the scheme are determined by the competitive tendering process, which are recovered directly from customer revenues. This means that customer revenues more accurately reflect costs.

The tender process will also reveal better information about the costs involved in other high value projects, both to appointees and to us. This information can be used as a benchmark to assess the efficient cost of similar future projects, not delivered by DPCs.

The increased accuracy of our price control leads to increased economic efficiency, for example by more accurate allocation of finance. Although such benefits are hard to quantify, they could be significant.

8.3 Costs of DPC

We have based our revised cost assumptions on the costs set out in the CATO IA, which in turn are based on Ofgem’s wide experience of running OFTO tenders. We have also considered evidence from SHEPD’s tender for the New Energy Solution for Shetland.

⁸ [Extending competition in electricity transmission: impact assessment](#), Ofgem, May 2016

We consider procurement and tendering in the water sector to be similar to these activities in the energy sector, because they are for similarly high-value, discrete assets and will be undertaken under a similar procurement model. Therefore our assumption about the costs of DPC is that they will be similar to the costs identified by Ofgem for onshore energy networks. Given Ofgem's experience in running tenders for transmission networks, we consider Ofgem's cost data to be robust and the best estimate available.

For DPC, the majority of incremental costs for each project will be incurred early on during procurement exercise. We consider that costs will be in the following main areas:

- pre-tender costs;
- tender costs;
- bidder costs;
- Ofwat costs; and
- contract management costs.

8.3.1 Pre-tender costs

Appointees may incur some pre-tender costs as a result of a project proceeding through DPC. This could include additional legal work relating to the transfer of any necessary preconstruction activity that has taken place prior to the commencement of the tender process.

We have considered some of the activity carried out by Thames Water before the tender for the Tideway project. However, we do not consider this to be particularly representative of the type of activity that would take place prior to a DPC tender, given the different scale and nature of the Tideway project.

We have also considered evidence from Ofgem as to the preparatory work carried out by incumbent electricity transmission owners, which seems a more realistic comparison in terms of scale. Ofgem estimated such work at about £1 million per project. We have therefore taken this as our assumption. Such costs would feature in the appointee's totex.

8.3.2 Tender costs

For projects of this scale, tendering activity would be likely to occur under the counterfactual scenario. We therefore assume that appointees will not have

significant set-up costs to prepare for DPC procurement, but may have to upskill in certain areas, requiring additional staffing, technology and external advice.

For OFTO tender rounds 1, 2 and 3, Ofgem has estimated its costs for running the tender at approximately 1% of the final transfer value of the assets. In comparison, the costs incurred by SHEPD in running a tender for the New Energy Solution for Shetland were assessed at £2.91m for a project that was expected to have a value of £581.7m, equivalent to 0.5% of the value of the project.⁹

As the OFTO tenders provide a wider evidence base, we base our estimate on this, and assume that the cost to appointees of running a DPC tender will equate to 1% of the project value. However, the SHEPD experience does provide some evidence that costs could be lower. Such costs would feature in the appointee's totex. Moreover, both estimates include costs which would have been incurred in the counterfactual. For this reason, our figure is likely to be an overestimate of cost.

8.3.3 Bidder costs

Bidders will incur costs at various stages in the process, including when engaging with supply chains, preparing bid submissions, conducting due diligence and (where successful) contract negotiation. While they might still incur some of these costs under a counterfactual scenario, the role of a CAP in a DPC project is significantly different to the role of a normal construction or operations and maintenance contractor, and so bidder costs are likely to be higher.

We have again considered the body of evidence that Ofgem has acquired through running OFTO tenders. It reports that successful bidder costs ranged between 1% and 3% of final transfer value. Some of these costs would have been incurred under the counterfactual. We consider that 2% of the project value is a fair estimate of the successful bidder's costs for DPC. These costs will be built in to the successful bid.

Unsuccessful bidders will also incur costs, which will vary depending on the stage they reach in the tender process. The total volume of such costs will vary for each tender process depending on the number of bidders involved. These costs will remain with the unsuccessful bidders. There may be scope for some of these costs

⁹ Ofgem recently announced that, owing to a change in circumstances, the project is no longer proceeding.

to be recycled into future DPC bids. But bidders are likely price their bids to cover any remaining costs of unsuccessful bids. This will increase the price of the successful bid to some extent.

8.3.4 Ofwat costs

Unlike Ofgem, we will not be running tenders. Rather, we will be providing oversight during the process. We therefore consider that our own costs will be much lower than Ofgem's costs of setting up to run tender processes (which have already been used to estimate likely tender costs in section 8.3.2).

We have considered our costs for administration in relation to the Thames Tideway Tunnel. These amounted to £1.3m in 2013-14, £1.85m in 2014-15, and £850,000 in 2015-16. Our work on the Thames Tideway Tunnel has been of a greater magnitude than we would expect for DPC projects, so we do not consider this to be a reasonable guide to the costs for our oversight of a typical DPC project.

We asked Ofgem about the costs incurred for administering the Shetlands New Energy Solutions tender, which we consider to be more comparable in scope and scale to a typical DPC project. Although Ofgem accounted for its costs within a budget allocation for a larger set of work (and therefore did not specifically allocate a cost reporting line to this work), it agreed, based on its experience, that to provide oversight for a procurement exercise of this type, an estimate of £500,000 was plausible, spread across approximately 3 years.

We therefore adopt this figure as our assumption for our costs per project, noting that this could vary in relation to the size and complexity of a project. We expect our costs to be recovered from our budget, which is recovered under licence fees from water companies.

8.3.5 Contract management costs

We expect appointees to actively manage contracts with their CAPs to ensure the best value for customers. This would still be true under a counterfactual scenario, particularly during construction. After construction, contract management is most likely to focus on the interface between the CAP's assets and the appointee's assets, which is the most likely novel aspect of DPC.

We have little information to draw on here, so we have based our estimate on our own estimated costs of oversight set out above, which equates to just over £150,000

a year per project over approximately 3 years. Over the life of a 20 year contract, we therefore assume such costs would be about £3 million. Such costs would feature in the appointee's totex.

8.4 Scenario analysis of total costs and benefits

At this stage, we do not have certainty about which projects will come forward for DPC. We therefore do not have enough data to assess the volume of projects, or their size, for our impact assessment. In view of this, we have used scenario analysis to explore the range of possible impacts based on some generic project sizes.

Based on the evidence we have assessed (summarised in section 8.3), we consider that the following cost assumptions are plausible for each scenario that we modelled:

- pre-tender costs of £1 million per project;
- tender costs of 1% of the project value per project;
- bidder costs of 2% of the project value per project;
- contract management costs of £3 million per project; and
- Ofwat costs of £500,000 per project.

Table 9.4 below models some of the costs that we estimated would be incurred as a result of a company choosing DPC over in-house provision. This data sets a benchmark for efficiency savings that would need to be achieved by DPCs in order to be beneficial.

Table 9.4 – Scenario assessment of DPC costs

Scenario	One £100 million project	One £250 million project	One £500 million project	One £1 billion project	Two £500 million projects	Three £500 million projects
Total costs (millions of £)	7.5	12	19.5	34.5	39	58.5
Costs (% of asset value)	7.5	4.8	3.9	3.45	3.9	3.9

The benefits of DPC will depend on a wide range of factors, such as the type of infrastructure, the level of construction risk, the market's attitude to a new type of infrastructure financing model, and the broader economic climate. The level of

available benefits is likely to vary by project, so we have concluded that it would not be meaningful to provide a single figure.

However, our estimates of benefits appear likely to significantly outweigh the costs. As set out above, CEPA estimate suggest opex savings of 18% to 25% of total costs and finance savings of 8% to 11%. This excludes capex savings and any indirect benefits from improving the accuracy of our cost estimates.

All the examples we have considered in our assessment of benefits (summarised in section 8.2) achieved savings of 20% or more, and these estimates are likely to include the costs borne by the CAP. Even savings at half this rate, 10%, for DPC projects, would be beneficial overall in all scenarios, while savings at a quarter of this rate, 5%, would be beneficial overall for projects of £250m or above.