

Thames Water: Direct procurement for customers detailed actions

In Thames Water’s business plan “Our Business Plan 2020-2025” Thames Water identified and assessed the following schemes for their suitability for Direct Procurement for Customers (DPC):

- the South-East Strategic Reservoir Option (SESRO)
- Deephams Re-use Plan;

We have reviewed Thames Water’s technical (“discreteness”) assessment and value for money analysis of these schemes. From our review, we have no actions for these schemes.

During our review of Thames Water’s plan we identified a number of schemes which were rejected by Thames Water that could be suitable for DPC. Due to a lack of information in Thames Water’s business plan submission, we were unable to review the detail for each of these schemes and their suitability for DPC. The schemes that we identified were:

- NE London Resilience (WN+) - New 45MI/d treatment & storage
- NE London Resilience (WN+) - High Lift Pumping station
- Raw water transfer schemes - New trunk mains (c.£80m totex)

We require Thames Water to supply us with the following information:

Scheme	Action	Action Reference
NE London Resilience (WN+) - New 45MI/d treatment & storage.	<ul style="list-style-type: none"> • A summary of the key elements of the NE London Resilience (WN+) - New 45MI/d treatment & storage scheme. This should include all of the relevant scheme information including but not limited to the key deliverables. • A summary of the projected scheme costs clearly identifying the costs for each phase of the scheme by year. These should clearly identify the incremental costs to Thames Water. • An economic analysis of the scheme including a Net Present Value analysis using the standardised 	TMS.CMI.A5

Scheme	Action	Action Reference
	<p>assumptions provided in Table A. This analysis should clearly identify any additional benefit to customers of progressing this scheme outside of DPC.</p>	
<p>NE London Resilience (WN+) - High Lift Pumping station.</p>	<ul style="list-style-type: none"> • A summary of the key elements of the proposed NE London Resilience (WN+) - High Lift Pumping station scheme. This should include all of the relevant scheme information including but not limited to the key deliverables. • A summary of the projected scheme costs clearly identifying the costs for each phase of the scheme by year. These should clearly identify the incremental costs to Thames Water. • An economic analysis of the scheme including a Net Present Value analysis using the standardised assumptions provided in Table A. This analysis should clearly identify any additional benefit to customers of progressing this scheme outside of DPC. 	<p>TMS.CMI.A6</p>
<p>NE London Resilience (WN+) – Other</p>	<ul style="list-style-type: none"> • Please explain why linking the two NE London Resilience schemes into a single DPC scheme was not contemplated. • For NE London Resilience (WN+) - New 45Ml/d treatment & storage scheme and the NE London Resilience (WN+) - High Lift Pumping station scheme appear to be geographically and/or functionally linked. We require Thames Water to supply us with an economic analysis of the combined scheme including a Net Present Value analysis using the standardised assumptions provided in Table A. This analysis should clearly identify any additional benefit to customers of progressing these schemes outside of DPC. 	<p>TMS.CMI.A7</p>
<p>Raw water transfer schemes - New trunk mains.</p>	<ul style="list-style-type: none"> • A summary of the key elements of the proposed Raw Water Transfer Schemes - New trunk mains. This should include all of the relevant scheme information including but not limited to the key deliverables. • A summary of the projected scheme costs clearly identifying the costs for each phase of the scheme by year. These should clearly identify the incremental costs to Thames Water. 	<p>TMS.CMI.A8</p>

Scheme	Action	Action Reference
	<ul style="list-style-type: none"> An economic analysis of the scheme including a Net Present Value analysis using the standardised assumptions provided in Table A. This analysis should clearly identify any additional benefit to customers of progressing this scheme outside of DPC. 	

As part of our review of Thames Water’s plan we identified a number of schemes which met the threshold for DPC. Due to a lack of information in Thames Water’s business plan submission, we were unable to review the detail for each of these schemes and their suitability for DPC. The schemes that we identified were:

- Guildford Sewage Treatment Plant
- WRMP19_ML_ Kempton WTW
- PR19 Mogden STW
- PR19 Beckton STW Growth
- PR19 Crossness STW Growth
- PR19 Riverside STW – Growth
- WRMP19_ML_ TLT extn - Extension from Lockwood to KGV

We require Thames Water to supply us with the following information:

Scheme	Action	Action Reference
Guildford Sewage Treatment Plant	<ul style="list-style-type: none"> A summary of the key elements of the proposed Guildford Sewage Treatment Plant scheme. This should include all of the relevant scheme information including but not limited to the key deliverables. A summary of the projected scheme costs clearly identifying the costs for each phase of the scheme by year. These should clearly identify the incremental costs to Thames Water. A summary of the current funding options for the scheme and impact on Thames Water customers. An assessment of the potential for the scheme to be delivered through DPC. 	TMS.CMI.A9
PR19 Mogden STW	<ul style="list-style-type: none"> A summary of the key elements of the proposed capital spend at Mogden Sewage Treatment Plant 	TMS.CMI.A10

Scheme	Action	Action Reference
	<p>for AMP7 and AMP8. This should include all of the relevant scheme information including but not limited to the key deliverables.</p> <ul style="list-style-type: none"> • A summary of the projected scheme costs clearly identifying the costs for each area of the scheme by year. These should clearly identify the incremental costs to Thames Water. • An assessment of the potential for elements of the scheme to be delivered through DPC. 	
PR19 Beckton STW Growth	<ul style="list-style-type: none"> • A summary of the key elements of the proposed capital spend at Beckton Sewage Treatment Plant for AMP7 and AMP8. This should include all of the relevant scheme information including but not limited to the key deliverables. • A summary of the projected scheme costs clearly identifying the costs for each area of the scheme by year. These should clearly identify the incremental costs to Thames Water. • An assessment of the potential for elements of the scheme to be delivered through DPC. 	TMS.CMI.A11
PR19 Crossness STW Growth	<ul style="list-style-type: none"> • A summary of the key elements of the proposed capital spend at Crossness Sewage Treatment Plant for AMP7 and AMP8. This should include all of the relevant scheme information including but not limited to the key deliverables. • A summary of the projected scheme costs clearly identifying the costs for each area of the scheme by year. These should clearly identify the incremental costs to Thames Water. • An assessment of the potential for elements of the scheme to be delivered through DPC. 	TMS.CMI.A12
PR19 Riverside STW – Growth	<ul style="list-style-type: none"> • A summary of the key elements of the proposed capital spend at Riverside Sewage Treatment Plant for AMP7 and AMP8. This should include all of the relevant scheme information including but not limited to the key deliverables. • A summary of the projected scheme costs clearly identifying the costs for each area of the scheme by year. These should clearly identify the incremental costs to Thames Water. 	TMS.CMI.A13

Scheme	Action	Action Reference
	<ul style="list-style-type: none"> An assessment of the potential for elements of the scheme to be delivered through DPC. 	
WRMP19_ML_TLT extn - Extension from Lockwood to KGV Reservoir	<ul style="list-style-type: none"> A summary of the key elements of the Extension from Lockwood to KGV Reservoir scheme. This should include all of the relevant scheme information including but not limited to the key deliverables. A summary of the projected scheme costs clearly identifying the costs for each phase of the scheme by year. These should clearly identify the incremental costs to Thames Water. An assessment of the potential for elements of the scheme to be delivered through DPC. 	TMS.CMI.A14
WRMP19_ML_Kempton WTW	<ul style="list-style-type: none"> A summary of the key elements of the proposed capital spend at Kempton Water Treatment Works for AMP7 and AMP8. This should include all of the relevant scheme information including but not limited to the key deliverables. A summary of the projected scheme costs clearly identifying the costs for each phase of the scheme by year. These should clearly identify the incremental costs to Thames Water. An assessment of the potential for elements of the scheme to be delivered through DPC. 	TMS.CMI.A15

Table A – Standard assumptions for the NPV analysis of Direct Procurement for Customer schemes

The business case submissions from the water companies as part of the Price Review 2019 had thirteen economic assessments of schemes that were considered technically suitable for Direct Procurement for Customers (DPC). There were significant differences in the assumptions used to identify the NPV differential for the DPC case (factual) and in-house (counterfactual). The table below sets out a set of assumptions and range of sensitivities that should be used in the event that companies do not have any specific market information for the relevant scheme.

Area	Item	DPC (Factual) Assumptions	In-house (Counterfactual) Assumptions
Customer Payments	Value	Determined by CAP contract payments and Appointee costs	Determined by Allowed Revenues from PR framework
	Timing	From first payment by customers which would usually be expected after asset completion. If improved contractual terms are identified with earlier payments then these should be considered.	From first payment by customers which would usually be when the appointee starts collecting from customers as per its business plan 'allowed revenue' profile.
Contract period	Length	Mid-case 25 years, Lower-case 20 years, Upper-case 50 years	Not needed

Area	Item	DPC (Factual) Assumptions	In-house (Counterfactual) Assumptions
PV Calculation	Period	From the start of the customer payments until the end of the asset life (or until there is no difference in asset value, maintenance and finance costs).	
	Discount rate	Discount rate of 3.5% real decreasing overtime (Based on HM Treasury Green Book Supplementary Guidance: discounting (3.5% 0-30 years, 3.0% 31-75 years, 2.5% 76-125 years)	
Indexation		CPIH	CPIH
Asset Depreciation	Method	Straight line or as per companies policy for asset type, the treatment should be consistent between DPC and in-house deliver.	
	Depreciation Rate	Mid-case - As per company policy for this asset type Lowercase +25% faster company policy rate	As per company policy for this asset type
Financing Costs	Cost of debt	Construction: forward Libor 6m swap + 220bsp –240bsp Operation: forward Gilt / Libor 6m swap + 120bsp –140bsp RCV bullet repayment: forward Gilt / Libor 6m swap + 120bsp –140bsp	
	Cost of equity	Equity IRR (Real) 8% (Upper case 7%, lower case 10%)	As per company business plan

Area	Item	DPC (Factual) Assumptions	In-house (Counterfactual) Assumptions
	Gearing	Mid case 85% (Upper case 90%, lower case 80%) after asset completion.	As per company business plan or Ofwat notional of 60%.
	Assumptions	Given the ranges available above, please provide explanation justifying your selections made	N/A
Cost differentials	Capex efficiency saving	Mid case 10% (Uppercase +15%, lowercase 5%)	In-house is base case
	Opex efficiency saving	Mid case 10% (Uppercase +15%, lowercase 5%)	In-house is base case
	Additional Bidder Costs	Additional bidder costs of 2% of capital spend, (Upper case 1%, lowercase 3%)	In-house is base case
	Procurement	Procurement costs of 1% of capital spend, (Uppercase 0.5%, Lowercase 2%)	In-house is base case
	Management	Contract management costs £150k per annum. (Lowercase £300k per annum for high operational interaction schemes)	In-house is base case

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Area	Item	DPC (Factual) Assumptions	In-house (Counterfactual) Assumptions
Terminal Value	Assumptions	Please disclose clearly any assumptions about terminal value	N/A