July 2019

Trust in water

PR19 draft determinations

Havant Thicket policy issues appendix

Ofwat

PR19 draft determinations: Havant Thicket policy issues appendix

Contents

1 Summary

In this document we set out our proposed policy approach to the development of the Havant Thicket reservoir. Our regulatory approach is tailored to recognise the specific circumstances of the project, promote efficient outcomes and to ensure customers are adequately protected. We consider that a separate ten-year price control better aligns the cost and risk sharing arrangements between the customers and shareholders of both Portsmouth Water and Southern Water given the long term nature of the project. This technical appendix sets out the details of our decision and steps for implementation.

We will work with Portsmouth Water to make changes to its appointment (licence) to implement these arrangements.

2 Background

We have challenged water companies to assess a wide range of options for securing water supply resilience including investment in new infrastructure and water transfers. Southern Water faces significant water resources deficits in the west of their region after tight limits were imposed by the Environment Agency on the amount of water they can take from environmentally sensitive rivers in Hampshire. Southern Water must take steps to improve water efficiency, reduce leakage and invest in new water sources to maintain secure water supplies for its customers.

Portsmouth Water benefits from having a modest water resource surplus and has been working collaboratively with Southern Water to increase water transfers. Portsmouth Water has ambitious proposals to adopt supply-side and demand-side solutions to increase the amount of surplus water that it can provide to Southern Water, including proposals to build the Havant Thicket Winter Storage Reservoir ("Havant Thicket reservoir") to generate an additional 21Ml/d of available water to be traded with Southern Water.

Overall, Portsmouth Water intends to increase its water transfers to 60Ml/d which will make a significant contribution to Southern Water meeting the water needs of its customers.

Regulatory challenges arising from the development of Havant Thicket reservoir

Regulatory treatment of bulk supplies

The provision of bulk supplies of water to neighbouring water companies typically uses the existing assets of the appointed company and is part of its regulated business. The costs of providing bulk supplies to another water undertaker fall within the scope of the wholesale price controls[1]. Investment associated with bulk supplies is included within totex allowances and added to the regulatory capital value (RCV).

While the costs of providing bulk supplies fall within the scope of the price controls, bulk supply charges are not regulated in the same way as other charges. Revenues from bulk supply charges are outside the wholesale price controls. Instead we net-off the expected revenues from bulk supply charges when determining the level of the price controls. This means that profits from bulk supplies benefit customers, through

[1] In this context, "wholesale price controls" are the price controls for network plus water activities and water resources activities.

lower bills. Our water trading incentives allow companies to retain a proportion of the profits from entering into new bulk supply arrangements.

We do not limit the prices of bulk supplies through price controls. They are normally negotiated between water undertakers as part of the bulk supply agreement. We expect bulk supply prices to be consistent with our bulk supply pricing policy principles. If companies do not agree the prices and conditions of new bulk supply agreements, then they can, in some circumstances, be referred to Ofwat for a determination under section 40 of the Water Industry Act 1991.

Policy issues arising from the development of Havant Thicket reservoir

The proposed water transfers between Portsmouth Water and Southern Water are ambitious and unusual in that a large proportion of the bulk supply is contingent on construction of the Havant Thicket reservoir in Portsmouth Water's area. The reservoir is only needed to generate additional water capacity to meet the demands in Southern Water's Western region.

Portsmouth Water and Southern Water are negotiating commercial arrangements to deal with the complex allocation of costs and risks as well as the core aspects of bulk supplies. Portsmouth Water set out in their April submission that they are looking to ensure that:

- Portsmouth Water customers do not fund the development and construction of the Havant Thicket reservoir through bills, but that the costs fall to Southern Water and will be passed on to Southern Water customers;
- Portsmouth Water customers continue to benefit from secure water supplies and are not exposed to an unacceptable risk of water usage restrictions as a consequence to the transfers to Southern Water;
- there are no wider service risks to customers and particularly that management focus is not diverted from day-to-day service delivery within the Portsmouth Water area;
- the bulk supply agreement provides appropriate protection from early termination of the agreement and limits Portsmouth Water customers and shareholders from exposure to stranded assets; and
- Portsmouth Water customers share the benefits of the water transfers.

Southern Water are looking to agree a bulk supply arrangement that will share the costs and risks fairly between the two companies and ensure that it can deliver adequate water supplies to meet its legal obligations. The price limits that we determine for Southern Water at PR19 set out the money that can be recovered from Southern Water customers during the 2020-25 period to fund its wholesale water activities efficiently, from which it would pay the bulk supply charges.

We need to ensure that the regulatory framework protects the customers of Portsmouth Water and Southern Water; and encourages efficient behaviour. Our regulatory framework sets price limits and provides a package of cost and performance incentives to ensure that companies deliver wholesale water services to its customers. We need to make sure that the protections and incentives in the price control framework appropriately reflect the complex allocation of costs and risks for the development of the Havant Thicket reservoir. We have evaluated the options for the regulatory treatment of the Havant Thicket reservoir.

3 Regulatory treatment of the Havant Thicket reservoir

We strongly support the proposed development of Havant Thicket reservoir by Portsmouth Water to support water transfers to Southern Water. The ambitious approach embraces our challenge to the sector for greater regional collaboration in delivering secure water resources. It is important that current and future customers of Portsmouth Water and Southern Water are appropriately protected and that risks are allocated to those best able to manage them. Our regulatory framework should therefore be designed to:

- provide appropriate incentives to deliver efficient outcomes for customers and the environment from the development and construction of Havant Thicket reservoir. This includes protecting customers of Portsmouth Water from funding the reservoir development through their bills;
- ensure that there is appropriate cost- and risk-sharing arrangements between companies to:
    - protect Portsmouth customers from exposure to cost overruns and stranding risk which should be shared between Portsmouth Water's shareholders and Southern Water's shareholders and customers;
    - allow customers and shareholders of Portsmouth Water and Southern Water to share the benefits of any efficiency gains and profits from water trading; and
    - provide strong protections for Southern Water customers and the environment to meet their legal obligations by 2029, including financial penalties on Portsmouth Water for delays in delivering the reservoir;
- ensure that there are no wider service risks to customers of Portsmouth Water and Southern Water; and
- ensure that the proposed arrangements do not have a negative impact on the financial resilience of Portsmouth Water or Southern Water.

We consider two broad approaches for achieving these arrangements:

- direct procurement for customers; and
- delivery through the regulated business, including potentially a separate control.

Option 1 – Direct procurement for customers

The Havant Thicket reservoir is expected to cost in excess of £100 million to develop and build over a ten year period, and therefore meets the initial threshold to be assessed as a possible project delivered through direct procurement for customers.

Under this option Portsmouth Water would be funded for the preconstruction activities for the reservoir. It would then procure a third party to build, finance, own and operate the reservoir. Portsmouth Water would pay the third party over time and are likely to only start to pay for the reservoir once it is completed and operational. Southern Water would then pay Portsmouth Water for the bulk supplies that they receive once the reservoir is available for use. We understand that Portsmouth Water and Southern Water will align the timing of bulk supply payments to when Portsmouth make payments for the reservoir.

Direct procurement for customers can deliver benefits in design, construction, financing and operation for discrete, high value projects. It promotes innovation and resilience by allowing new participants to bring fresh ideas and approaches to the delivery of key projects. It enables project specific allocation of risks between water companies and third party service providers, with flexibility to align incentives to deliver greater value for customers and shareholders.

There is sufficient evidence that the Havant Thicket reservoir is suitable for a direct procurement for customers process within Portsmouth Water's proposed plan.

Portsmouth Water has argued that direct procurement is inappropriate for Havant Thicket as procuring a third party to design, build finance and operate would lead to delays of 18-24 months in delivering the project. They also argue that the project would have a higher cost of financing than the regulated business and that the project will be highly integrated in the Portsmouth Water network with significant technical interface risks if delivered by a third party.

Portsmouth Water provided insufficient evidence to justify many of the assumptions to support its argument that cost of financing the reservoir would be greater under a direct procurement for customers process. While we did not accept Portsmouth Water's economic analysis, we acknowledge that the economic case is marginal given the relatively small size of the capital expenditure of £60 million. This means that significant savings from financing and cost efficiency would be needed to offset the additional administration costs of the direct procurement for customers. Given we are at an early stage of the direct procurement for customers process, we consider that it is desirable that initial direct procurements for customers are for larger projects with greater likelihood of significant benefits for customers from finance and cost efficiency. We acknowledge the potential for delay associated with use of direct procurement for customers for Havant Thicket, although we consider that much of this lies within the control of Portsmouth and Southern Water. We also note the some of the potential benefits of a direct procurement for customers approach can be gained through a longer term price control, as set out in the next section.

Once direct procurement for customers is embedded and well understood by the market, we are confident that the approach will deliver value to customers for smaller or more marginal projects. Water companies will be expected to set out strong and compelling evidence for discounting direct procurement for customers in relation to future high value schemes.

Option 2 – delivery by the regulated business

For the Havant Thicket reservoir, we identify two ways that we can regulate the in-house delivery approach:

- dealing with Havant Thicket reservoir as part of the proposed wholesale controls (**Option 2a**); or
- determining a separate price control to limit what can be recovered from Portsmouth Water's own customers (**Option 2b**), although this will require a change to Portsmouth Water's licence to implement it.

Under an in-house approach, Portsmouth Water will design, build, own and operate the Havant Thicket reservoir. Under this arrangement, we would normally determine price limits that reflect the efficient costs of developing the reservoir, apply an appropriate cost of capital to those costs included in Portsmouth Water's RCV, and net-off the expected income from bulk supply charges paid by Southern Water. Portsmouth Water and Southern Water would also be able to make water trading incentive claims at future price reviews to share the benefits of water trading with investors.

We can apply this model in different ways to align the incentives and risk allocation of the price control differently.

We consider that a separate price control aids transparency, enables greater regulatory oversight, and enhances customer protection. A company-specific separate control for certain activities is not unprecedented. For example, Thames Water has a separate price control for its interfacing activities for the Thames Tideway Tunnel project.

A separate price control will ensure that the bespoke cost and risk sharing arrangements between Portsmouth Water and Southern Water can be accommodated in the price control design without requiring complex adjustments at the end of the period to reconcile differences. Under the other wholesale controls, our draft determination for Portsmouth Water proposes to allow investors to keep 62.2% of cost outperformance and bear 50% of cost underperformance. The remaining cost under or outperformance is allocated to its customers.

The Havant Thicket reservoir is being developed to meet the needs of Southern Water's customers, and it would be inappropriate for Portsmouth Water's customers to underwrite the development of the project. We expect that under performance against our cost allowances for Havant Thicket should be shared between Portsmouth Water and Southern Water, without adverse consequences for Portsmouth Water's customers.

We therefore propose that Portsmouth Water's investors bear 50% of any cost underperformance, with the remaining 50% borne by Southern Water. Portsmouth Water's customers do not share cost overruns, which is consistent with the objective of protecting Portsmouth Water's customers from the costs of the reservoir development. We also propose that Portsmouth Water and Southern Water share any cost outperformance, including with Portsmouth Water's customers. We expect Portsmouth Water's customers to receive a 50% share of the cost outperformance retained by Portsmouth Water. The impact on Southern Water and its customers will depend on the bulk supply charges agreed with Portsmouth Water. We fund Southern Water's efficient cost of the bulk supply payments that they make to Portsmouth Water through their wholesale controls, which is subject to normal totex sharing arrangements.

Duration of a separate price control

We are determining the wholesale controls for the period 2020-25 and have considered the appropriate duration of a separate revenue control for Havant Thicket. We propose a ten-year price control period.

Havant Thicket reservoir will take approximately 10 years to build before it can enable the bulk supply to Southern Water under an 80-year agreement. There are significant merits from aligning the duration of the price control with the construction period.

A five-year price control will require Ofwat to determine price limits for the 2025-30 period at PR24, providing an opportunity to reopen the allocation of costs and risks during the construction period. We are concerned that this might dilute incentives on Portsmouth Water to manage costs and delivery and provide less regulatory certainty to Portsmouth Water and Southern Water and their investors around the regulation of Havant Thicket.

Under a five-year price control, it would be difficult specify delivery incentives in relation to the project in this period and there would be uncertainty about what delivery incentives might be set at PR24. A ten-year price control period would make it easier to set consistent delivery incentives covering the entire construction period.

Under a five-year price control, we can only determine cost allowances that reflect expected expenditure in the period 2020-25. Cost efficiency incentives may encourage deferral of spend to the 2025-30 period. The processes of determining future cost allowances may also introduce regulatory uncertainty for investors.

Our approach will:

- maintain continuity of incentives throughout the construction period, including our approach to cost and risk sharing,
- enable strong delivery performance measures, including financial penalties for delay;
- provide greater regulatory certainty to Portsmouth Water and Southern Water; and
- ultimately offer greater customer protection.

From 2030, for the Havant Thicket separate control, we consider there is merit in aligning future price limits to the regulatory cycle for other wholesale price controls, for example determining five-year price limits.

4 Implementation issues

Implementing a separate ten-year price control will require a change to Condition B (Charges) of Portsmouth Water's licence ahead of the final determinations. We will work with Portsmouth Water to explore the necessary changes further in the coming weeks and intend on consulting formally on licence changes in the autumn.

In particular, we expect the licence modification to set out the following powers:

- Allow Ofwat to determine a separate price control limiting the amount that Portsmouth Water can charge its customers in respect of activities relating to the development of the Havant Thicket reservoir. This will enable Ofwat to set a revenue control for 10 years (including, where appropriate, how price limits will change with inflation).
- Allow Ofwat to designate the activities that will fall within the scope of the Havant Thicket revenue control and will therefore be excluded from the scope of the wholesale controls (covering network plus water activities and water resources activities) to address the risks of double counting.
- Allow Ofwat to decide how Portsmouth Water will demonstrate compliance with the separate price control.

We do not propose to allow a reopening of the separate revenue control at PR24. The purpose of the ten-year control will provide greater certainty to Portsmouth Water and its customers about the recovery of costs over the period and provide clarity to its customers they will be responsible for any of the costs of the Havant Thicket reservoir during the construction period, consistent with the principles that both companies set out in their business plans. Portsmouth Water and Southern Water will have commercial arrangements to deal with cost variations outside our price controls. We consider that a reopener for the separate control would be unnecessary given these arrangements. Towards the end of the ten-year period we will consider any necessary revenue adjustments in relation to the period from 1 April 2030. This will include any necessary adjustment to ensure that customers share the benefits of any economic profits.

The design of the separate price control raises policy issues in relation to the application of water trading incentives, the interactions with the Revenue Forecasting Incentive (RFI) and the design of delivery incentives.

Application of water trading incentives

Bulk supply prices are negotiated between companies and are not normally subject to regulatory intervention unless we are asked to determine disputes in relation to the terms and conditions. Portsmouth Water may earn economic profits from the bulk supply prices that it negotiates with Southern Water, which would be reflected in the expected bulk supply revenues. As a result, we expect the benefits of water trading will be transferred to Portsmouth Water's customers through lower price limits that we determine.

Under our existing approach to water trading incentives, Portsmouth Water and Southern Water can share the benefits of new water trading through our water trading incentives. The export incentives allow Portsmouth Water to claim a 50% share of the expected economic profits of the trade over the lifetime of the bulk supply agreement. The import incentives allow Southern Water to share in the cost saving generated by the water trade up to specified limits. Where incentive claims meet the relevant criteria we include incentive payments in future price limits.

We will not determine water trading incentives claims until the reservoir is completed and therefore enabling the bulk supplies. This ensures that customers are protected since we will not be able to assess the expected economic profits from water trading of the water trade without certainty on the costs of the project, the date when bulk supplies can be taken and bulk supply prices agreed between the companies. In general, we would not expect Portsmouth Water's investors to earn an economic profit in advance of the water being available to supply.

To the extent that the complex allocation of costs, benefits and risks during construction also makes an allowance for economic profits during construction difficult to estimate, we propose to make adjustments in determining price limits from 1 April 2030 for the difference between the actual and assumed bulk supply revenues for the 2020-30 period. These adjustments will ensure that customers and shareholders receive their appropriate share of benefits from trading consistent with the proposed cost and risk sharing arrangements proposed. We will set out our reconciliation model for calculating these revenue adjustments for future price limits with the final determinations.

We expect our reconciliation model:

- to compare difference between the expected bulk supply revenues that we assumed when determining the price limits and the bulk supply revenue earned during the 2020-30 period;
- to calculate cost under- or outperformance over the 2020-30 period;
- to determine potential water trading incentives claims; and
- to adjust future price limits to ensure that both companies and their customers receive an appropriate share of the costs and benefits of the bulk supply arrangement.

The existing water trading incentives typically allow companies to recover their share of the expected economic profits up front, providing greater certainty to investors and strengthening the incentives to trade water. Advancing expected economic profits creates an intergenerational transfer of value and increases risks to future customers. Advancing value over a long period also increases the risks to future generations. Most new water transfers are of a modest duration, typically 10-15 years, which minimises the risks to customers. Given the proposed 80 year duration of the trade we expect Portsmouth Water to ensure that customers receive some benefits from the water trade throughout the life of the bulk supply arrangement. We will consider intervening to cap the value of incentive payments within each price control period if necessary.

Interactions with the Revenue Forecasting Incentive (RFI)

The separate price control for Havant Thicket sets limits on the revenues that Portsmouth Water can recover from its customers. We propose that the separate price control for Havant Thicket fall outside the wholesale RFI. However, the separate control may have interactions with the RFI in relation to the water network plus and water resources controls the way the RFI is currently defined. We will need to make small refinements to the RFI formula and associated definitions to ensure that the RFI works correctly for the wholesale controls. We will publish the refined RFI model for Portsmouth Water no later than final determinations.

Project delivery incentives

We propose that Portsmouth Water should be exposed to a bespoke performance commitment and associated financial penalty linked to delivery of the Havant Thicket reservoir. Southern Water need confidence that the Havant Thicket reservoir is delivered in 2029 to ensure it has an adequate bulk supply that meet its legal obligations. Project delays will increase the risk of water restrictions for customers of Southern Water and potentially have a detrimental environmental impact where Southern Water use drought orders and permits to maintain water supplies.

Southern Water can mitigate these risks contractually through the bulk supply arrangement by agreeing financial compensation arrangements with Portsmouth Water for non-delivery of water. Such an approach may provide strong financial incentives to meet the bulk supply obligations. However, there is a strong public interest in timely delivery of Havant Thicket and this may be best reflected by Portsmouth Water developing a bespoke performance commitment to apply based on the length of any delay. We expect Portsmouth Water to propose a bespoke performance in response to draft determination as well as provide clarity on how delays are addressed within bulk supply arrangements.

5 Calculation of costs and allowed revenues

This section sets out our assessment of efficient costs for the activities relating to the development of the Havant Thicket reservoir. We also set out our proposed limit on the revenue that Portsmouth Water could recover from its own customers for the activities relating to the development of the Havant Thicket reservoir.

Havant Thicket costs

For the Havant Thicket control, the baseline costs are calculated using the same building blocks approach used to determine the wholesale water price controls. Not all elements are applicable to the Havant Thicket revenue control as set out in Table 5.1.

- Pay as you go (PAYG) – this reflects the allocation of our efficient totex allowance to costs that are recovered from revenue in 2020-30 period. The proportion of totex not recovered from PAYG is added to the shadow regulatory capital value (shadow RCV) which is recovered over a longer period of time.
- Allowed return on capital – this is calculated based on our assessment of the cost of capital multiplied by the average shadow RCV for each year.
- Shadow RCV run-off – this reflects the amount of shadow RCV that is amortised from the shadow RCV in the period of the price control.
- Non-price control income – income from charges excluded from the price controls. This includes bulk supply revenues from Southern Water but can also include other services. We deduct the forecast income from these charges from the allowed revenue, because costs relating to these charges are included in the calculation of allowed revenue.

We set out the calculation of the costs for Portsmouth Water’s Havant Thicket control in Table 5.1. We summarise the total of the build-up of costs as the total over ten years, however our financial model calculates it on an annual basis for the purposes of our draft determination.

We explain how we calculate PAYG, shadow RCV run off and the allowed return on cost of capital and other elements of allowed revenue in the following sections.

Table 5.1: Calculation of allowed revenue 2020-30 (£ million)

	Havant Thicket separate price control
Pay as you go	0.0
Shadow RCV run-off	7.4
Return on capital	17.1
Tax	0.0
Deduct other income (non-price control)	-24.4
Revenue re-profiling	0.0
Final allowed revenues	**0.0**

For the separate Havant Thicket price control, we are proposing to set the allowed revenues to zero. This recognises that Portsmouth Water's customer are not funding the development of the reservoir through their bills.

Bulk supply prices are unknown at this time as they still form part of the ongoing negotiations between Portsmouth Water and Southern Water. We have assumed bulk supply prices are set on accounting costs (i.e. there is no economic profit), which ensures that Portsmouth Water's customers do not pay for the costs relating to Havant Thicket. We expect Portsmouth Water to provide updated estimates of bulk supply revenues along with their response to the draft determinations on 30 August. We will address the treatment of potential economic profits and water trading incentives in our final determinations.

Cost recovery of Havant Thicket

We adopt a shadow RCV for the Havant Thicket revenue control to recognise that while we are using a building blocks approach, many of the protections of stranding risk are captured under the proposed bulk supply agreement between Portsmouth Water and Southern Water. We assume that the opening balance of the shadow RCV for the Havant Thicket revenue control is zero and that for the duration of the revenue control that 100% of total expenditure will be added to the shadow RCV (i.e. pay-as-you-go rates are set to 0%).

RCV run-off in this instance is the proportion of the shadow RCV which is recovered in the 2020-30 period. We maintain the allocation of all expenditure to shadow RCV as proposed by Portsmouth Water and we depreciate the RCV on a straight-line basis to an end date 80 years after the assumed start date for the bulk supply agreement of 1 April 2020.

Return on capital

Companies are allowed a return on the RCV, equal to the Weighted Average Cost of Capital. We need to determine the appropriate level of the cost of capital for the separate price control covering the Havant Thicket reservoir for the purposes of our financeability assessment.

As the project relates to new investment, its shadow RCV will be indexed to CPIH and so we calculate a return based on a CPIH-deflated cost of capital. Our assessed wholesale cost of capital which will apply to the Havant Thicket price control is 2.72% on a CPIH-deflated basis. This reflects our sector wholesale cost of equity (4.21% in CPIH terms), but a different cost of debt – 1.72% instead of the sector assumption of 2.33%.

Our decision to set a different cost of debt reflects two factors:

- No embedded debt assumption, as this would be inappropriate for a project whose debt financing will be new debt only (which would apply for example if the project were delivered by direct procurement for customers).
- A 30 basis point uplift to the sector cost of new debt assumption – reflecting our decision at Initial Assessment of Plans to allow Portsmouth Water a company-specific adjustment to its cost of debt at PR19.

We consider it may be appropriate to apply our cost of new debt indexation mechanism when considering efficient costs as part of PR24 and PR29, and welcome views on how this mechanism might apply in the context of a ten-year control.

Detailed commentary can be found in the ‘Risk and return technical appendix’.

Other allowed revenue

Non-price control income is the expected income that is deducted from the efficient costs, as this revenue is not recovered from the charges covered by the price control, but is expected to cover costs included in the calculation of the price control.

This is primarily revenues from bulk supply charges and advance payments made against these, but it can include other income.

For the purposes of the separate price control for Havant Thicket, we assume that the non-price control income fully covers the expected costs that will be incurred in the ten year period. This ensures that customers do not fund the development of the reservoir through customer bills. We do not assume any economic profits for the purposes of draft determinations, recognising that the bulk supply terms are still being negotiated by Portsmouth Water and Southern Water. We will update our view of non-price control income, based on further information provided by Portsmouth Water, for final determinations.

Taxation

We calculate a tax allowance reflecting the corporation tax that the company expects to pay in 2020-25. We calculate the tax allowance using our financial model based on the projected taxable profits of the appointed business and the current UK corporation tax rates and associated reliefs and allowances.

Our decision to propose a separate control in Portsmouth Water’s draft determination requires a separate allowance for taxation relating to Havant Thicket. Portsmouth Water has not provided any commentary relating to the tax treatment of capital expenditure on Havant Thicket in the business plan. We set the tax allowance to zero for the purposes of the separate control for Havant Thicket in the draft determination. We expect the company to provide updated tax information for each control as part of its representations on the draft determination along with evidence of the assurance work undertaken on the tax deductions available for Havant Thicket on the information. For the draft determination we do not take account of the additional information the company provided in response to query PRT-DD-RR-004.

6 Next steps

We will need to engage with Portsmouth Water to progress the implementation of the separate price control of the Havant Thicket reservoir, including development of draft licence modifications, over the coming weeks and months.

We envisage the following timetable:

- 18 July – Draft determinations published;
- 18 July to 30 August – company engagement on the proposed separate price control;
- 30 August – deadline for representations to the draft determinations;
- October – consultation on proposed licence modifications;
- November – implement licence modifications;
- 11 December – Final determinations published.

Annex

Table A1: Calculation of allowed revenue (£ million)

	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	Total
Pay as you go	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shadow RCV run-off	0.1	0.2	0.2	0.4	0.6	0.9	1.2	1.3	1.3	1.3	7.4
Return on capital	0.1	0.3	0.5	0.8	1.3	2.0	2.7	3.1	3.1	3.1	17.1
Tax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Deduct other income (non-price control)	-0.2	-0.5	-0.7	-1.2	-1.9	-2.8	-3.8	-4.4	-4.5	-4.4	-24.4
Revenue re-profiling	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final allowed revenues	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Table A2: Post 2020 investment shadow RCV (£ million)

	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Opening shadow RCV	-	9.62	15.31	21.89	38.43	57.46	87.44	108.88	116.08	115.50
Add : Post 2020 investment shadow RCV	9.68	5.85	6.80	16.90	19.60	30.84	22.60	8.51	0.77	-
Less : Shadow RCV run off	0.06	0.15	0.23	0.36	0.57	0.86	1.15	1.31	1.34	1.32
Closing shadow RCV	9.62	15.31	21.89	38.43	57.46	87.44	108.88	116.08	115.50	114.19

Ofwat (The Water Services Regulation Authority) is a non-ministerial government department. We regulate the water sector in England and Wales. Our vision is to be a trusted and respected regulator, working at the leading edge, challenging ourselves and others to build trust and confidence in water.

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