IPART Independent Pricing and Regulatory Tribunal | NSW

Financial incentive arrangements

November 2022

Water »

Tribunal Members

The Tribunal members for this review are:

Carmel Donnelly PSM, Chair
Deborah Cope
Sandra Gamble

Enquiries regarding this document should be directed to a staff member:

Fiona Towers	(02) 9290 8420
Eva McBride	(02) 9113 7705

The Independent Pricing and Regulatory Tribunal (IPART)

Further information on IPART can be obtained from IPART's website.

Acknowledgment of Country

IPART acknowledges the Traditional Custodians of the lands where we work and live. We pay respect to Elders, past, present and emerging.

We recognise the unique cultural and spiritual relationship and celebrate the contributions of First Nations peoples.

Contents

1 Introduction

IPART recognise that communities, our environment and our economy need water businesses to have resilient, sustainable capability so they can deliver reliable, safe water services as our population grows and we face increasing challenges from climate change. The NSW Government has developed long-term strategies, aimed at delivering sustainable and resilient water services. We consider that good long-term plans, innovation and prudent investment will ensure water and wastewater services are resilient to drought and natural disasters, protect the environment, reduce greenhouse emissions and make cities more liveable.

IPART regulates the prices and performance of several NSW monopoly water businesses. We have reviewed how we do this to better support water businesses deliver water services that are sustainable, efficient, and meet customer and community expectations.

While IPART will continue to protect consumers from unjustified prices for water services our new regulatory tools including our incentives will encourage prudent investment in infrastructure and new technologies so water businesses can deliver better long-term customer value.

IPART's new regulatory approach will more strongly and clearly require water authorities to bring customers into decision-making about the design of services and setting of priorities. Customers can expect that water businesses will communicate and consult with them directly and listen and respond to their views.

IPART's regulatory approach will reinforce NSW Government water strategies by holding water authorities accountable to plan and deliver short, medium and long-term customer outcomes, efficiently.

Central to the overall design of our approach are financial incentive schemes. They have been designed to enhance the incentives within the building block regulatory framework and ensure that water businesses have consistent incentives for improving service outcomes, and obtaining operating and capital expenditure efficiencies, to promote customer value.

There are three financial incentive schemes within the water pricing framework:

- outcomes delivery incentive (ODI) scheme – which provides water businesses with incentives for incremental changes in customer outcomes
- efficiency benefit sharing scheme (EBSS) – which provides incentives for continuous improvement in operating expenditure to promote customer value, and
- capital efficiency sharing scheme (CESS) – which provides incentives for efficient investment in capital expenditure to promote customer value.

The schemes have several design elements which will operate in the first determination period for which these schemes are applied to each water business, to manage financial risks and uncertainty and so ease implementation. In addition, the incentive schemes will only be applied to those water businesses that can demonstrate capacity to respond effectively to the incentives provided.

We intend to monitor the implementation of the schemes and review key elements to enhance the schemes over time.

Our intention is that this paper will form the basis of the chapter on incentive schemes for the Handbook under the 3Cs framework, a draft of which will be available for review in the coming months. This paper explains the design and operation of the schemes which is separate to the decisions made to include them as part of the 3Cs framework (these decisions are covered in the Technical Paper).[1]

It is a guide for water regulatory practitioners, and those interested in the details of how each of the incentive schemes are intended to operate.

The paper is structured as follows:

- Chapter 2 provides a high-level overview of the incentive arrangements applying in the water regulatory framework
- Chapter 3 describes each of the 3 incentive schemes in detail, including a step-by-step guide to the application of each scheme
- Chapter 4 explains the design elements that have been put in place to manage financial risks and uncertainty for the water businesses as part of implementation of the schemes in the first determination period for a water business
- Appendix A provides 3 worked examples of the practical application of each scheme, and
- Appendix B provides a glossary of key terms used in this paper.

2 Incentive arrangements in the water regulatory framework

In the absence of market interactions between buyers and sellers for the provision of utility services, regulatory frameworks use financial and other incentives to promote customer value. When designing any regulatory framework, regulators seek to incentivise regulated businesses to efficiently deliver outcomes that customers need and value.

In this section, we set out the reasons for putting in place the financial incentive arrangements for the water regulatory framework, describe the schemes at a high level, and set out when they are to apply.

2.1 Providing incentives for continuous improvement to promote customer value

IPART's water regulatory framework ensures that water businesses are focused on delivering services that are needed by customers, at least cost, to deliver customer value. Customer value can be achieved through multiple pathways, including by:

- improving service outcomes without incurring additional costs
- lowering costs to deliver the same service outcomes, or
- both improving outcomes while lowering costs.

The incentive schemes within the water regulatory framework ensure that water businesses receive the same financial benefits or penalties associated with under or over expenditure, irrespective of the timing of the under or over expenditure, over and between determination periods. This addresses the problem under the previous regulatory framework's incentive arrangements where stronger incentives for expenditure savings were provided at the start of a determination period compared to the last year of the determination period.

The incentive schemes therefore provide a basis for businesses to continuously improve customer value over the medium to long term, irrespective of the timing of regulatory reviews.

An important outcome of implementing the incentive schemes for a water business is that it provides confidence that a business' expenditure proposals reflect efficient costs. This is because the incentives more closely align to improving consumer value, particularly when supported by the focus on consumers within the regulatory framework.

2.2 Service level and expenditure incentive schemes

The water regulatory framework has 3 inter-related incentive schemes, namely the ODI scheme, the EBSS and the CESS. The incentive power of the schemes in combination with business engagement with its customers provides confidence that proposed and actual expenditures are efficient, without the need for comprehensive expenditure reviews as part of a regulatory review.

This reflects an expectation that a water business will conduct its own comprehensive review of proposed expenditures and engage with its customers as part of its process for ensuring that expenditure forecasts are both efficient and achievable.

The financial incentive schemes have been designed to work hand-in-hand with the reputational and procedural incentives provided by other elements of the water regulatory framework. These other incentives are described in IPART's Final Report.[2]

2.3 When are these schemes to be applied?

The incentive schemes are an important part of the water regulatory framework and ensure the fair sharing of the risks associated with under and over expenditure between businesses and consumers.

However, we acknowledge that the incentive schemes add complexity to the regulatory framework and require water businesses to have a good understanding of their future expenditure needs. In addition, for the incentives to be effective, the water businesses will also need appropriate systems and processes to effectively control expenditures.

Each water business should consider whether it would like to be subjected to the financial incentive schemes as part of its next regulatory proposal.

In considering this, each water business should consider the various design elements that have been put in place to limit the financial risk and uncertainty associated with implementing the schemes during the first determination period. These have been put in place to facilitate introducing the incentive schemes, while businesses develop both an understanding of the incentives they create, as well as the systems and processes required to respond effectively to the incentives.

Once the incentive schemes have been implemented for a water business, there is an expectation that they will continue for subsequent determination periods. There may be circumstances where the schemes may need to be removed or amended which will be explored with the business at the time.

We expect that the incentive schemes will be applied in the initial determination period by businesses with self-assessed Advanced or Leading regulatory proposals. By implementing financial and customer outcomes incentive schemes, we can place less reliance on expenditure reviews by consultants. However, for businesses with a Standard proposal, we expect that the business would need to provide us with confidence that expenditure proposals reflect efficient costs, that its internal systems and processes have a strong cost efficiency perspective and is able to respond effectively to the incentives schemes before including them as part of its proposal. This means, if a business decides not to implement the incentive schemes as part of its proposal, it is likely that we will conduct a comprehensive review of the expenditure (as we have done in the past) in determining appropriate revenue requirements for the determination period. This reflects the confidence that we place in the incentives created through these incentive schemes when they work together. Water businesses should therefore weigh up whether transition to the financial incentive schemes might be preferable to continuing with an expenditure review conducted by us.

We intend to review the operation of the incentive schemes after the first round of implementation and will consult on any proposed improvements to the schemes.

3 The schemes provide incentives to promote customer value

This section describes each of the incentive schemes in greater detail, including a step-by-step guide as to how each scheme operates in practice.

3.1 The schemes work together to provide a package of incentives

A key design feature of the schemes is that they work together to provide a suite of incentives to promote customer value. We consider that when the three schemes are applied together they work to create a balance by encouraging businesses to fully consider the offsetting outcomes in the other schemes. This will provide the best outcomes and consumer protections minimising the opportunity to pursue incentive scheme payments under just one scheme.

For example, consider a business that seeks to maximise financial rewards by under investing in the business by delaying replacement or other capital expenditure that would be considered necessary to maintain service outcomes. While this approach would result in a financial reward through the CESS, we would expect that over time the business will likely suffer worsening service performance outcomes over time.

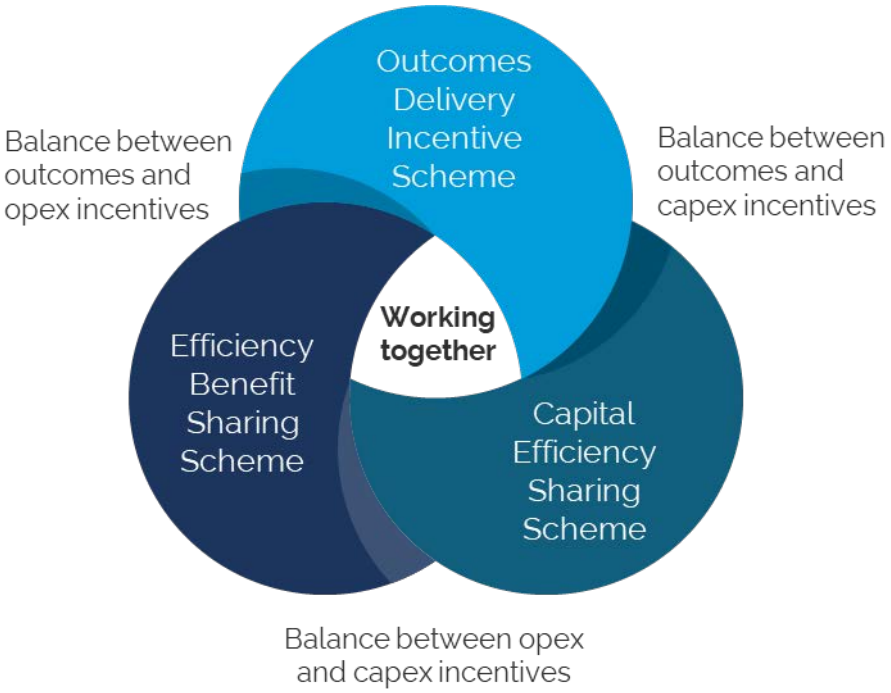
In this example, any financial benefit of reducing capital expenditure in this example, will be offset by penalties through the ODI because of poorer performance outcomes over time.

It follows that by providing a package of incentives, it minimises the potential for a water business to undertake cost savings, inappropriately.

Similarly, by having both capital and operating expenditure efficiency schemes, there is little financial reward, and so incentive, for businesses to shift expenditure between operating and capital expenditure, unless this delivers an overall efficiency benefit.

It is for this reason, water businesses' proposals should include the three incentives as they are designed to work together. **Figure 3.1** demonstrates how the three schemes work together.

Figure 3.1 The three financial incentive scheme work together



3.2 Promoting service outcomes that deliver customer value – the outcomes delivery incentive scheme

This section describes in detail the design and practical application of the ODI scheme.

3.2.1 Overview of the ODI scheme

The ODI scheme ties financial rewards and penalties to the delivery of key customer outcomes that promote customer value (**Box 3.1.**) Over time our ability to measure the value of outcomes will develop. Methods such as using a willingness to pay, or other methods, should be proposed by the business.

As part of the 3Cs framework, each business will propose customer outcomes, and specific measures for each outcome that will promote customer value. For a particular outcome measure, if the business can establish the customer value for an increase (or decrease) in performance, we will allow the business to retain 20% of the value it has delivered to customers from a change in performance.

ODIs are intended to provide financial incentives for businesses to prioritise customer engagement and deliver on the outcomes that customers value. Businesses otherwise face a financial disincentive to deliver above minimum standards set in licence requirements.

The ODI scheme balances the financial incentives to pursue savings that would reduce service level outcomes to receive financial rewards through the EBSS or CESS. We consider this will achieve the best outcomes for customers.

Box 3.1 Outcome delivery incentive scheme – overview

Aim: To promote service level outcomes as agreed with customers.

Description: ODIs are identified and agreed through engagement between businesses and customers. A water business would propose metrics for each ODI, with it receiving incremental rewards or penalties in the subsequent determination period for incremental improvements or reductions in outcomes during the determination period.

Key features:

- Each business proposes ODIs that align with service outcomes agreed through customer engagement.
- Improvements or reductions in performance is measured incrementally each year such that a financial reward or penalty is provided in the year when the performance change first occurred.
- The method for valuing benefits is to be proposed by the business and agreed by IPART.
- Business retains 20% of the value from incremental outcome improvements achieved over time.
- Businesses are penalised 20% of the value of worsening performance outcomes.

Sharing ratio: 20% of the gains or losses.

3.2.2 How does the ODI scheme work?

The ODI scheme works through water businesses linking outcome metrics to outcomes that have been identified and agreed through customer engagement.

We would expect that each water business will identify several customer outcomes for which specific outcome metrics will also be identified as part of its engagement with customers ahead of a regulatory proposal.

For each ODI:

- a baseline level of the associated outcome metric is determined
- gains/losses are calculated on an incremental basis to the baseline
- incremental changes are assumed to be permanent for the purpose of calculating gains/losses
- businesses retain 20% of the incremental value of the gain/loss, and
- the financial benefits are provided over the course of the subsequent determination period.

3.2.3 Practical application of an ODI – waterway health

To explain the practical application of an ODI, we have developed a waterway health outcome example. Importantly, this example is intended to be illustrative for the purposes of explaining the practical application of an ODI, and so should not be taken as an example that should be adopted by water businesses.

As explained earlier, the ODIs will reflect customer engagement on desirable service outcomes.

In this example, a water business has decided to reduce the number and impact of sewage overflows into waterways within its area of operations, beyond any requirements in its operating licence. The aim of this service outcome will have been identified through customer engagement and is supported by evidence about the value customers place on reducing the number of incidents to improve waterway health.

Under this ODI, the water business would measure the incremental reduction / increase in a metric related to sewerage overflow incidents. The ODI would reward the business for investing in economically efficient investments that reduced the number and duration of sewerage overflow incidents each year.

The key steps in applying this example waterway health ODI are:

- Step 1: Determine the baseline forecast level of sewage overflow incidents based on the operating licence (or other regulatory requirements) over the determination period and discussions with customers
- Step 2: Estimate the incremental change in the number and impact of sewage overflow incidents over the determination period
- Step 3: Calculate the Net Present Value (NPV) of the change in outcomes based on the identified metric, and
- Step 4: Adjust revenue requirements in the next determination period.

We describe each of these steps in greater detail below. A worked example is set out in Appendix A.

Step 1: Determine the baseline forecast level of sewage overflow incidents over the determination period

The first step involves developing a metric and baseline forecast level of sewage overflow incidents over the determination period.

The definition of an incident would be based on a particular water quality definition, based on the length of time that water quality exceeded specified quality parameters for identified locations within the area of operations. This definition would be developed in consultation with customers.

The baseline forecast would be informed by past evidence for the metric and/or the water operating licence requirements, as well as expectations based on any planned investments or programs that might change the number and impact of sewage overflows over the determination period.

We would expect that this baseline level of any associated expenditure would be part of the business' engagement with customers and would reflect the relevant costs and benefits of the associated investments.

Step 2: Estimate the incremental change in overflow incidents over the determination period

The second step would involve estimating the incremental change in the number and impact of sewage overflow incidents over the determination period. In practice this would involve comparing the actual number of incidents with the forecast levels, in each year of the determination period.

Step 3: Calculate the NPV of the change in sewage overflow incidents

The next step calculates the value of the incremental change in the number of sewage overflow incidents over the determination period.

For this ODI, the value of changes in the number of incidents would need to be informed through consultation with consumers. Ideally it would reflect the value that consumers place on reducing the number of sewage overflow incidents. This would be converted to a value per reduced incident.

It follows that the NPV of the change in sewage overflow performance can be estimated by summing the incremental change in each year by the value of reducing each sewage overflow incident, divided by the weighted average cost of capital (WACC) in the current determination period, across each year of the determination period.

Algebraically:

$$NPV_r = \sum_{i=1}^{n-1} \frac{Incremental\ change\ in\ number\ of\ incidents_{i,r} \times value\ of\ reduction\ (\$/\text{incident})}{WACC_r} \times (1 + WACC_r)^{0.5}$$

Where:

- r is the current determination period
- n *is* the length of the determination period in years
- i is a year within the current determination period
- NPV_r is the value NPV in perpetuity of the incremental change in the number of sewage overflow incidents in determination period r
- $Incremental\ change\ in\ number\ of\ incidents_{i,r}$ is the incremental change in the number of sewage overflow incidents in year i of determination period r
- $WACC_r$is the post-tax WACC for the regulated water business over the current determination period adjusted for the assumption that the mid-year timing of cash flows.

Step 4: Adjust revenue requirements in the next determination period

The final step involves calculating the business' share of the value of the change in sewage overflow incident performance (which would apply the 20% sharing ratio).

The business' share would be used to adjust revenue requirements for the subsequent determination period.

We expect the adjustment would be based on a real annuity to spread the impact on revenue requirements evenly over the next determination period.

3.3 Promoting efficient operating expenditure to deliver customer value – the efficiency benefit sharing scheme

This section describes in detail the design and practical application of the EBSS.

3.3.1 Overview of the EBSS

Our EBSS seeks to provide a consistent financial incentive for water businesses to promote efficient operating expenditure. The scheme is designed to incentivise water businesses to make year-on-year efficiency savings in operating expenditure.

The scheme allows businesses to retain 20% of the NPV of any efficiency gains (losses) compared to forecast operating expenditure, with the remaining 80% being passed on to consumers. Importantly, the business retains the benefit resulting from operating expenditure savings in that year, but not for subsequent years. This is to avoid double counting of operating expenditure gains, which are typically enduring.

Box 3.2 Efficiency benefit sharing scheme – overview

Aim: To promote continuous improvement in operating expenditure.

Description: The EBSS provides financial incentives to water businesses to achieve operating cost savings over the medium to long term. Businesses are rewarded (or penalised) for operating cost savings (over expenditure) compared to expectations in each year. Businesses receive a benefit (or penalty) based on a share of the cost savings (or overruns).

Key features:

- Businesses to propose and IPART to approve any expenditure categories that are not to be subject to the scheme.
- Incremental gains / losses are measured each year, with the NPV of all gains / losses shared between businesses and customers.

Box 3.2 Efficiency benefit sharing scheme – overview

- Adjustments can be made for recurrent operating expenditure in the penultimate year to ensure that this is appropriately captured in baseline forecasts for the next determination period.
- 20% of the gains / losses are shared, with revenues adjusted during the subsequent determination period.

Sharing ratio: 20% of the gains or losses.

3.3.2 How does the EBSS work?

The incremental gain across each year of the determination period is used to value the efficiency gains or losses in perpetuity and is retained by the business using the 20% sharing rate.

Practically, this involves:

- calculating the value of the permanent efficiency gain / loss made by the business under a NPV approach, where a gain / loss in operating expenditure is treated as enduring.
- applying the scheme from the final year of the preceding Determination period up to and including the penultimate year of the current Determination period.

An NPV approach reduces complexity surrounding the carry forward of gains between Determination periods and does not require IPART to determine whether a saving is permanent or temporary. Under a NPV approach, fluctuations in operating expenditure 'net out' to reveal genuine long-term efficiency gains over time. The present value approach also has regard to the explicit benefits or costs the water business has already incurred.

The incentive payment calculation period is undertaken with a one-year lead compared to the Determination period. This approach avoids the requirement to forecast final year operating expenditure outcomes prior to the end of the Determination period and any subsequent adjustments to reflect forecast differences. The final year of the current Determination period is therefore included in incentive payments for the following Determination period.

Equivalent to the Australian Energy Regulator's (AER) EBSS approach, we may make one-off adjustments to base year operating expenditure to reflect non-recurrent gains or losses which are used as the baseline operating expenditure forecast for the next Determination period.[a] This might arise, for example, due to increases in operating expenditure to meet new statutory or operating licence obligations. This adjustment does not affect incentive payments, but results in more realistic operating expenditure forecasts for the following Determination period.

[a] For example, if base year operating expenditure is reduced by $1 million for one off costs that are not expected to be incurred in future years, the base year incremental gains are assumed to be $1 million higher. Noting that this adjustment would need to be carried forward into the calculation of incremental gains in year 5 and 6.

Box 3.3 provides an example of how the EBSS works in circumstances where operating expenditure increases due to the need to satisfy a changed regulatory standard (e.g. environmental standards).

Box 3.3 How does the EBSS work when standards change, leading to higher costs within a determination period?

Currently, any changes in health or environmental standards that lead to higher costs within a determination period are borne by the business in its entirety. In practice, businesses may seek to achieve cost efficiencies elsewhere so as to minimise the impact of the additional costs on the overall business's finances.

This reflects the 100% sharing of operating expenditure overspending inherent in the previous regulatory framework.

The 20% sharing ratio means that under the EBSS, the business would only incur 20% of the additional costs associated with standard changes within a determination period. This lowers the financial risks of such changes on the business, while still providing a reasonable financial incentive to seek other opportunities to lower any costs associated with meeting standard changes.

3.3.3 Practical application of the EBSS

The practical steps involved in applying the EBSS are:

- Step 1: Calculate the incremental operating expenditure efficiency gains / losses in each year of the determination period
- Step 2: Calculate the present value of efficiency gains / losses over the determination period
- Step 3: Adjust for within determination period financing benefits, and
- Step 4: Adjust revenue requirements for the subsequent determination period.

We describe each of these steps in greater detail below. A worked example is set out in Appendix A.

Step 1: Calculate the incremental operating expenditure efficiency gains / losses in each year of the determination period

In the first year that an EBSS is applied, the incremental gains / losses cannot be determined as there is no previous year of incremental gain / loss. Instead, the gain / loss in the first year is simply the difference between forecast and actual operating expenditure.

In the second and all subsequent years up to the penultimate year of the determination period, the incremental gains / losses are the difference between actual and forecast operating expenditure in that year, minus the difference between forecast and actual in the preceding year.

The final year of the determination period is the same as for the preceding years, except for the application of an adjustment factor to manually correct base year operating expenditure for forecasting the following determination period. The adjustment factor is to accommodate circumstances where a water business incurs material non-recurrent operating expenditure changes in the penultimate year of the determination period, which is subsequently used as the base year for the next determination period.

Step 2: Calculate the total operating expenditure efficiency gains / losses over the determination period

The second step involves calculating the NPV of the incremental operating expenditure efficiency gains / losses over the entire determination period. This value represents the total efficiency gains or losses to be shared with consumers.

The formula to determine the value of a permanent change to operating expenditure is first:

$$Total\ efficiency\ gain_{i,r} = \frac{Incremental\ efficiency\ gain_{i,r}}{WACC_r} \times (1 + WACC_r)^{0.5} + \sum_{a=i}^{n} Incremental\ efficiency\ gain_{i,r} \times DF_{a,r}$$

and then:

$$Total\ efficiency\ gain_r = \sum_{i=1}^{n} Total\ efficiency\ gain_{i,r}$$

Where:

- *r* is the current determination period
- *n is* the length of the current determination period in years
- i is a year within the current determination period
- $Total\ efficiency\ gain_r$ is the NPV in perpetuity of the incremental permanent change to operating expenditure for the determination period r
- $Total\ efficiency\ gain_{i,r}$ is the NPV in perpetuity of the incremental permanent change to operating expenditure for year *i* of the determination period r adjusted for the assumed mid-year timing of cash flows
- $Incremental\ efficiency\ gain_{i,r}$ is the incremental operating expenditure efficiency gain in year *i* of the determination period r
- $DF_{i,r}$ is the mid-year discount factor in year i of the determination period r
- $WACC_r$is the post-tax WACC for the regulated water business over the determination period *r*.

While fluctuations in operating expenditure will net out over time, the financing reward associated with the timing of operating expenditure is ultimately retained by the business at a 20% sharing rate.

Step 3: Adjust for within period financing benefits

If a water business underspends (overspends) its operating expenditure allowance within a determination period, it will incur financing benefits (costs) in terms of outperforming (underperforming) its operating expenditure allowance. Therefore, total operating expenditure efficiency gains / losses are adjusted to reflect benefits / costs which are received during the determination period.

IPART assumes that operating expenditure gains / losses are incurred in the middle of the year and subsequently adopts a mid-year discount rate.

$$Net\ financing\ benefit = \sum_{a=\mathrm{i}}^{n} \frac{(F_i - A_i)}{(1 + WACC_r)^{\mathrm{a}-n-0.5}}$$

Where:

- n is the length of the current determination period in years
- i is a year within the current determination period
- F_i is the operating expenditure allowance for year *i*
- A_i is the actual operating expenditure for year *i*, and
- $WACC$ is the mid-year post-tax WACC for the regulated water business in determination period *r*.

The net financing benefit is the sum of financing benefits incurred across the determination period weighted by the appropriate mid-year discount rate.

Step 4: Adjust next period revenue requirements

The incentive payments are made as a constant adjustment to the revenue requirement used to determine maximum prices in the following determination period. The adjustment reflects the NPV of the incentive mechanism payments at the end of the previous determination period. This is calculated through the following steps:

- first, the efficiency gain (loss) to be shared by the business is calculated by multiplying the calculated total efficiency gain over the determination period by the sharing ratio (i.e. 20%)
- second, subtracting the within period financing benefits (losses) that the business has already incurred during the determination period from the total efficiency gain
- the resultant amount is the total EBSS incentive amount to be paid to the business
- finally, the EBSS incentive amount is converted to a real annuity to smooth its impact on the revenue requirement for the subsequent determination period.

3.4 Promoting efficient investments to deliver customer value – the capital efficiency sharing scheme

This section describes in detail the design and practical application of the CESS.

3.4.1 Overview of the CESS

The CESS has been designed to provide financial rewards to businesses that reduce their actual capital expenditure compared to forecast and penalises businesses that exceed capital expenditure forecasts.

As with the ODI and EBSS the scheme allows businesses to retain 20% of the NPV of any capital expenditure savings (loss) compared to forecast expenditure, with the remainder shared with consumers. This ensures balanced financial incentives across each of the schemes.

The water businesses have indicated that some capital expenditures are uncertain, and so the scheme allows businesses to propose at a regulatory review for the removal of specified categories of capital expenditure. When proposing to remove some categories of capital expenditure, the water business must demonstrate that:

- there is a chance that actual capital expenditure for the specified category will differ materially from forecast
- the business is putting in place steps to improve its capacity to forecast the category of expenditure for the next determination period, and
- any anticipated penalty arising from the CESS would have a material impact on the financial outcomes of the business.

In addition, to account for the possibility that businesses may inappropriately defer capital expenditure into subsequent determination periods, where a project is deferred and cost forecasts materially increase on a NPV basis, an adjustment will be made to the incentive payments to exclude the value associated with the forecast increase in capital expenditure. This adjustment will provide a disincentive to defer capital expenditure to the next determination period to make a financial gain in the current determination period.

Box 3.4 Capital efficiency sharing scheme – overview

Aim: To promote continuous improvement in capital expenditure.

Description: The CESS provides financial incentives to water businesses to achieve capital expenditure savings over the medium to long term. Businesses are rewarded (or penalised) for capital expenditure savings (over expenditure) compared to expectations in each year. Businesses receive a benefit (or penalty) based on a share of the cost savings (or over runs).

Key features:

- Water businesses can propose expenditure categories to be excluded from the scheme, with IPART approving the proposal based on criteria (see section 3.4.1).
- Capital efficiencies or overruns are calculated each year by comparing actual to forecast capital expenditure.
- The NPV of those efficiencies and overruns are shared between customers and the business.
- The benefits / penalties result in adjustments to the revenue requirement for the next determination period.

Sharing ratio: 20% of the gains or losses.

3.4.2 How does the CESS work?

The CESS financially rewards businesses to deliver capital expenditure projects at a cost lower than forecast. The CESS has been designed to promote prudent financial management by rewarding businesses for outperforming their capital expenditure allowance and penalises providers which underperform capital expenditure forecasts.

It operates by estimating the difference in forecast compared to actual capital expenditure in each year and shares 20% of the NPV difference between the business and consumers.

This means that if the business overspends compared to forecast capital expenditure, then the business will bear 20% of the additional costs. Equally, it will benefit from 20% of capital expenditure savings over the determination period.

The NPV approach results in a time consistent scheme where the incentive to reduce capital expenditure is strongest at the time the saving is identified. This means that there is no advantage from an incentive payments perspective for a business to defer capital expenditure savings when these are identified.

Where a business defers capital expenditure inefficiently, such as when a capital expenditure deferral results in a higher NPV cost in subsequent periods, incentive payments are adjusted by this amount to ensure capital expenditure savings reflect genuine efficiency savings. For such an adjustment not to be applied, the business would need to provide reasons to support a deferral that ultimately increased the cost to customers.

The business must indicate whether any capital expenditure categories are to be excluded from the application of the CESS. Importantly, we expect the water businesses to use the next determination period to improve capacity to forecast expenditure for any excluded categories, so that those categories can be subjected to the application of the CESS at the next determination period.

3.4.3 Practical application of the CESS

The practical steps involved in applying the CESS are:

- Step 1: Estimate the capital expenditure efficiency gains / losses over the determination period
- Step 2: Adjust for within determination period financing benefits already received by the business
- Step 3: Adjust for the deferral of capital expenditure, and
- Step 4: Adjust revenue requirements for the subsequent determination period.

We describe each of these steps in greater detail below. A worked example is set out in Appendix A.

Step 1: Estimate the present value of capital expenditure efficiency gains / losses over the determination period

The capital expenditure efficiency gains (losses) are estimated by comparing actual with forecast capital expenditure for all those capital expenditure categories subject to the CESS.

The NPV is calculated using the water businesses' WACC for the subsequent determination period.

Under the CESS, the present value of an efficiency gain is calculated as the sum of variations between actual and forecast capital expenditure, weighted by a discount factor to reflect the time value of money associated with a saving at each point in time.

$$PV\ capital\ efficiency = \sum_{i=1}^{p} \frac{(F_i - A_i)}{(1 + WACC_r)^{i-p-0.5}}$$

Where:

- p is the length of the incentive calculation period
- i is a year within the current incentive calculation period
- F_i is the capital expenditure allowance for year i
- A_i is the actual capital expenditure for year i

- $WACC$ is the mid-year post tax WACC that is applied during the determination period.

Step 2: Adjust for within determination period financing benefits

If a water business underspends (overspends) its capital expenditure allowance across a determination period, it will incur financing benefits (costs) associated with the timing of capital expenditure. Therefore, total capital expenditure efficiency gains are adjusted to reflect financing benefits that are assumed to be received as a mid-year cashflow.

In the first year of the underspend the business only recovers the proportion of the return of capital expenditure incurred in that year as specified in the building block model (which is 50%). In following years, the business will retain a full year of benefit calculated as the underspend multiplied by the allowed rate of return.

$$Financing\ benefit_i = 50\% \times \frac{WACC_r}{(1+WACC_r)^{0.5}} \times (F_i - A_i) + \sum_{a=i+1}^{n} \frac{WACC_r \times (F_i - A_i)}{(1+WACC_r)^{0.5}}$$

$$Total\ financing\ benefit = \sum_{i=1}^{n} Financing\ benefit_i$$

Where:

- n is the length of the current determination period in years
- i is a year within the current determination period
- F_i is the capital expenditure allowance for year i
- A_i is the actual capital expenditure for year i
- $WACC$ is the real rate of return in the current determination period.

The net financing benefit in each year of the determination periods is then brought forward to the end of the determination period using a mid-year present value discounting factor.

The net financing benefit is added to total efficiency payments and shared with the business at a rate of 20% provided no additional adjustments are made for the deferral of capital expenditure.

Step 3: Adjust for the deferral of capital expenditure

Capital expenditure incentive mechanisms are designed to incentivise businesses to efficiently defer capital expenditure. However, in some circumstances the deferment may be into subsequent determination periods. To account for this, the capital expenditure incentive mechanism provides an adjustment for the deferral of capital expenditure.

The deferment adjustment operates by adding in the deferred capital expenditure into the subsequent period, which is then included in NPV terms into the calculation of the efficiency gains or losses. Consequently, the efficiency gain from deferring capital expenditure is equal to the time value of money rather than the value of avoiding the expenditure.

IPART will decide what constitutes deferred capital expenditure taking into account similar criteria as used by the AER, that is:

- the amount of the deferred capital expenditure in the current determination period is material
- the amount of the estimated underspend in capital expenditure in the current determination period is material, and
- the total approved forecast capital expenditure in the next determination period is materially higher than it is likely to have been if a material amount of capital expenditure was not deferred in the current determination control period.

Under certain circumstances, the deferment of capital expenditure may result in financing benefits for the business at the expense of consumers (even after accounting for the sharing of efficiency savings).

Water businesses can apply to exclude exceptionally large capital expenditure projects from the incentive mechanism where deferment is unlikely to be in consumer interests despite financing or efficiency gain benefits. For example, directives to address a major supply event may need to be excluded from the incentive mechanism to avoid complications surrounding optimal timing and the impact on incentive payments.

Step 4: Adjust revenue requirements for the subsequent determination period

The incentive payments are made as a constant adjustment to the revenue requirement used to determine maximum prices in the following determination period. The adjustment reflects the NPV of the incentive mechanism payments at the end of the previous determination period.

The CESS annual incentive payment is calculated by:

- first, multiplying the present value of the capital efficiency over the determination period by the sharing ratio (i.e. 20%)
- second, subtracting the within period financing benefits (losses) that the business has already gained during the determination period to determine the CESS total incentive payment, and
- finally, calculating a real annuity to ensure the businesses adjusted revenue requirement reflects the CESS total incentive payment.

3.5 Capping the maximum benefit or penalty to the water business

To further manage uncertainty and risks associated with the application of the incentive schemes, IPART will cap the maximum benefit or penalty to the water business, for those water businesses adopting the incentive schemes for the next Determination period.

The cap on incentive payments will apply across all 3 incentive schemes. This provides maximum flexibility for businesses to make trade-offs between the schemes, within the overall cap. For any efficiency gains or losses outside of the cap, the business will still be rewarded or penalised based on the standard incentives within the building block framework.

Businesses will need to propose the size of the cap as part of their regulatory proposal. As a default, the limit for the combined incentive payment would be 1% of the revenue requirement.

We are also open to requests by businesses for limits on specific incentive schemes, in addition to the overall cap across all schemes. That said, given the intention is for the schemes to work together, good reasons will be needed for any limits on specific incentive schemes.

4 The schemes have been designed to provide incentives while balancing risks and uncertainty

The financial incentive schemes are integral to IPART's water regulatory framework. They provide the basis for water businesses to achieve their strategic goals, while promoting customer value over the medium to long term.

That said, IPART recognises the significance of these incentive changes to the regulatory framework. We have put in place several design elements to limit financial risks and uncertainty that might arise from the practical application of the schemes while businesses better understand and respond to the incentives provided over the next determination period.

We describe these design elements in greater detail in this section.

4.1 Water businesses can choose to exclude certain capital expenditure from the incentive schemes

All regulatory frameworks rely on the ability for the business to reliably forecast future capital expenditure needs. This is to avoid rewards or penalties inherent in the framework from being driven by unanticipated changes in capital expenditures, due to unanticipated and unavoidable circumstances.

The financial incentive schemes also rely on businesses being capable of forecasting future capital expenditures with some degree of reliability.

To assist water businesses with implementing the incentive schemes in its first determination period, water businesses can propose to exclude certain capital expenditure categories from the application of the schemes.

The water businesses will need to propose what capital expenditure categories are to be excluded from the operation of the scheme, and satisfy IPART that:

- there is a chance that actual capital expenditure for the specified category will differ materially from forecast
- the business is putting in place steps to improve its capacity to forecast the category of capital expenditure for the next determination period, and
- any anticipated penalty arising from the CESS would have a material impact on the financial outcomes of the business.

To the extent that a default cap on the size of the revenue adjustment is in place (see further discussion below), then we would expect that there will be a reduced case for excluding capital expenditure categories. Ultimately, the balance between the various design elements to manage risks is a matter for each business to consider and will be subject to IPART's review and approval.

Critical to accepting capital expenditure exclusions is a plan for the water businesses to improve forecasting capabilities for the proposed excluded capital expenditure categories. This reflects the desirability of removing any capital expenditure categories from being excluded in subsequent Determination periods.

4.2 The sharing ratio means that risks are balanced with consumers

The sharing ratio of 20% limits the exposure that businesses face to over expenditure in both operating expenditure and capital expenditure. In setting the ratio at 20%, we considered our role in protecting the interests of consumers and balanced this with the need to provide incentives for the water businesses on financial rewards and penalties.

Practically, the 20% sharing ratio has the effect of sharing both risks and rewards in a fixed ratio with consumers. For example, and as explained in detail in Chapter 3, if a water business's operating expenditure exceeds expectations then the business incurs 20% of the additional cost, with the remaining 80% being borne by consumers. Symmetrically, 20% of cost efficiency savings are kept by the business with the remaining cost efficiency being shared directly with consumers.

This approach contrasts to the sharing of efficiency gains or expenditure overruns under the previous regulatory framework. Previously, 100% of any operating expenditure overruns would be borne by the business.

On balance, IPART believes that a 20% sharing ratio provides an appropriate balance of expenditure risk sharing between consumers and the water businesses.

4.3 By capping the size of the revenue adjustment, the financial risks for water businesses are lowered

To further lower the financial risks to water businesses, the size of the overall revenue adjustment associated with all the financial incentive schemes will be capped at a fixed amount. This has the practical effect of limiting the amount by which the incentive schemes will affect the revenues of the business and the impact on consumers.

As a default, the limit for the combined incentive payment would be 1% of the revenue requirement over the applicable determination period. The specific cap will be determined by IPART at each regulatory review, based on a proposal by each water business. In determining the cap, IPART will take into account the specific circumstances of the business, and the anticipated risks involved with implementation of the financial incentive schemes.

Water businesses may propose to cap the revenue adjustment for individual incentive schemes. However, there would need to be a compelling justification for capping the revenue adjustment from a subset of the incentive schemes, given IPART's intention for the incentives to operate as a package to provide appropriate incentives to promote customer value.

4.4 Net financial adjustments will be made at the end of the determination period

The final design element to manage financial risks for the business arises from the incentive schemes not changing the revenue requirements within the determination period that it is implemented. For the first determination period that the schemes apply, there will be no difference in cash flows or revenues compared to the previous water regulatory framework.

This is because, the financial adjustments resulting from the application of the incentives schemes will be applied in the subsequent determination period, based on outcomes during the former determination period.

This design approach will also ensure that the rewards and penalties resulting from the incentives schemes can be applied in a manner that smooths revenue implications over the next determination period. This will allow the business to manage any cashflow implications that might arise, while minimising the year-on-year change to customer prices.

4.5 IPART will reconsider whether these design elements of the incentive schemes should continue in subsequent determination periods

The various design elements that have been applied to the incentive schemes to address concerns about uncertainty and risk are to facilitate the introduction of the schemes. They provide a period for both the businesses and IPART to learn about the effectiveness of the incentive schemes, and any practical implementation challenges.

This will provide valuable insights to the design of the incentive schemes, which will inform any subsequent reviews into the design of the schemes.

That said, IPART expects that the need for these design elements will likely diminish as water businesses improve their capabilities and a better understanding of the risks and rewards associated with the schemes develops.

Appendices

A Worked examples of the incentive schemes

A.1 Outcome delivery incentive scheme

A.1.1 Improvement in leakage reduction

In this example, the water business has developed a baseline level of leakage and in 2026-27 improves upon that baseline by a permanent reduction in leakage by 5 ML/day. **Table A.1** sets out the value of the associated change in leakage.

Table A.1 Impact of a permanent reduction in leakage in 2026-27

	Determination period 1					Determination period 2				
Year	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**	**2030-31**	**2031-32**	**2032-33**	**2033-34**	**2034-35**
Discount rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Leakage baseline (ML/day)	100	100	100	100	100	95	95	95	95	95
Leakage actual performance (ML/day)	100	95	95	95	95	95	95	95	95	95
Incremental leakage reduction (ML/day)	0	5	0	0	0	0	0	0	0	0
Water usage price ($/kL)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total leakage improvement value ($ million/ year)	0	1.83	0	0	0	0	0	0	0	0
Discount factor	1.19	1.15	1.10	1.06	1.02	1.16	1.12	1.09	1.05	1.02
Value of change in leakage (end of FY30, $ million)	0	54.43	0	0	0	0	0	0	0	0

Note: All dollar values in $2024-25.

The ODI incentive payments for this example are calculated as follows:

- the 5 ML/day reduction in leakage is valued at $1.83 million in 2026-27 (the change in leakage multiplied by the water usage price which is the value of each ML of water saved)

- this translates to an NPV value (30 June 2030) of leakage reduction of $54.43 million across determination period 1
- applying a 20% sharing ratio, results in the business's share of this value being $10.89 million
- the water business also receives a within period benefit in terms of lower bulk water purchases during the determination period which translates to a NPV value (30 June 2030) of the financing benefit of $7.90 million, and
- netting of the financing benefit from the business's share of the value of the reduction in leakages results in $2.98 million (NPV 30 June 2030) being added to the revenue requirement for the subsequent period.

A.2 Efficiency benefit sharing scheme

A.2.1 Permanent reduction in operating expenditure

Table A.2 sets out an illustrative example of a permanent $5 million (real, 2024-25) reduction in operating expenditure (opex) in 2027-28. In this example, the EBSS carry forward amount for the 2030-31 to 2035-36 would be calculated based on the water business's performance over the 2025-26 to 2029-30 period.

Table A.2 Impact of a permanent reduction in operating expenditure in 2027-28 (real, $ million, 2024-25)

	Determination period 1					Determination period 2				
Year	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**	**2030-31**	**2031-32**	**2032-33**	**2033-34**	**2034-35**
Discount rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Opex forecast	100	100	100	100	100	95	95	95	95	95
Actual opex	100	100	95	95	95	95	95	95	95	95
Underspend	0	0	5	5	5	0	0	0	0	0
Discount factor	1.19	1.15	1.10	1.05	1.02	1.19	1.15	1.10	1.05	1.02
NPV underspend	0	0	5.52	5.30	5.10	0	0	0	0	0
Permanent efficiency gain	0	0	127.48	0	na	0	0	0	0	na
NPV efficiency gain	0	0	143.39	0	na	0	0	0	0	na

The EBSS would be calculated in this example as follows:

- a $5 million ($'real, 2024-25) permanent improvement in operating expenditure efficiency in 2027-28 delivers a benefit to business of $15.92 million (at 30 June 2030, $2024-25) over determination period 1

- the permanent NPV value of the one-off operating expenditure improvement in 2027-28 is $143.39 million (at 30 June 2030, $2024-25)
- the value of the total efficiency benefit is $143.39 million (at 30 June 2030, $2024-25)
- the business' share of the efficiency is $28.68 million (at 30 June 2030, $2024-25) (20% of the total efficiency benefit)
- the water business has already received a benefit of $15.92 million from reduced operating expenditure over determination period 1 (at 30 June 2030, $2024-25), and so
- the NPV EBSS payments to be included in the revenue requirement in the subsequent determination period of $12.76 million (at 30 June 2030, $2024-25) (i.e. the business' share of the efficiency benefit less the amount already received).

A.2.2 One-off reduction in operating expenditure

Table A.3 sets out an illustrative example of a one-off $5 million ($'real, 2023-24) reduction in operating expenditure in 2027-28.

Table A.3 Impact of a one-off reduction in operating expenditure in 2027-28 (real, $ million, 2024-25)

	Determination period 1					Determination period 2				
Year	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**	**2030-31**	**2031-32**	**2032-33**	**2033-34**	**2034-35**
Discount rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Opex forecast	100	100	100	100	100	100	100	100	100	100
Actual opex	100	100	95	100	100	100	100	100	100	100
Underspend	0	0	5	0	0	0	0	0	0	0
Discount factor	1.19	1.15	1.10	1.05	1.02	1.19	1.15	1.10	1.05	1.02
NPV underspend	0	0	5.52	0	0	0	0	0	0	0
Permanent efficiency gain	0	0	127.48	-127.48	na	0	0	0	0	na
NPV efficiency gain	0	0	143.39	-137.88	na	0	0	0	0	na

The EBSS for this example would be calculated as:

- a $5 million ($'real, 2024-25) one-off improvement in operating expenditure efficiency in 2027-28 is valued at $5.52 million across determination period 1
- the permanent efficiency gain is valued at $0 because the benefit in 2027-28 is unwound in 2028-29
- the NPV of efficiency gain for the 2025-26 to 2028-29 period is $5.52 million (at 30 June 2030, $2024-25)
- the business' share of the efficiency is $1.10 million (at 30 June 2030, $2024-25) but it has already received a benefit of $5.52 million, and so

- the NPV EBSS payments to be included in the subsequent determination period are -$4.41 million (at 30 June 2030, $2024-25).

The logic for this example is that the business would need to repay customers for one-off gains given the benefits received exceed the 20% sharing ratio. Under the previous regulatory framework, these benefits would have been retained in full by the water business.

A.2.3 One-off increase in operating expenditure in the base year

Table A.4 sets out an illustrative example of a one-off $5 million ($'real, 2024-25) increase in operating expenditure in the base year for the next determination period (2028-29), which is identified as being non-recurring. This might arise in response, say, to the need to undertake unanticipated activities that increases operating expenditure that IPART chooses to exclude from the base operating expenditure in the subsequent determination period.

Table A.4 Impact of a one-off increase in operating expenditure in the base year (real, $ million, 2024-25)

	Determination period 1					Determination period 2				
Year	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**	**2030-31**	**2031-32**	**2032-33**	**2033-34**	**2034-35**
Discount rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Opex forecast	100	100	100	100	100	100	100	100	100	100
Actual opex	100	100	100	105	100	100	100	100	100	100
Underspend	0	0	0	-5	0	0	0	0	0	0
Discount factor	1.19	1.15	1.10	1.05	1.02	1.19	1.15	1.10	1.05	1.02
NPV underspend	0	0	0	-5.30	0	0	0	0	0	0
Permanent efficiency gain	0	0	0	0	na	0	0	0	0	na
NPV efficiency gain	0	0	0	-5.30	na	0	0	0	0	na

In this example, a negative $5 million ($'real, 2023-24) adjustment is made to base year operating expenditure for the purposes of setting the operating expenditure allowance for the 2030-31 to 2035-36 Determination period to remove non-recurring expenditure. The EBSS would then be calculated by:

- a $5 million ($'real, June 2030) incremental increase in operating expenditure in 2028-29 results in an overspend of $5.30 million (at 30 June 2030, $2024-25)
- the NPV of efficiency loss for the 2025-26 to 2029-30 period is $0 because the worsening is offset by the adjustment
- the business's share of the inefficiency is $1.06 million (at 30 June 2030, $2024-25)

- the NPV EBSS payments to be included in the subsequent determination period of $4.24 million (at 30 June 2030, $2024-25) (i.e. the value of the overspend less the share incurred by the business).

Practically, this example highlights that a one-off increase in operating expenditure that the Tribunal considers should not be included in the base year expenditure for the subsequent period, is removed from the efficiency incentive scheme. The business is therefore compensated for the loss revenue that it has incurred less its 20% share.

A.3 Capital efficiency sharing scheme

A.3.1 Capital expenditure underspend

Table A.5 considers the incentive amount arising from a reduction in capital expenditure in 2027-28.

Table A.5 Impact of a reduction in capital expenditure (capex) in 2027-28 (real, $ million, 2024-25)

	Determination period 1				
Year	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**
Discount rate	4.0%	4.0%	4.0%	4.0%	4.0%
Capex forecast	100	100	100	100	100
Actual capex	100	100	90	100	100
Underspend	0	0	10	0	0
Financing benefit			0.20	0.39	0.39
Discount factor	1.19	1.15	1.10	1.05	1.02
NPV underspend	0	0	11.03	0	0
NPV financing benefit	0	0	0.22	0.42	0.40

The CESS would calculate the relevant incentive payment as follows:

- a $10 million ($'real, June 2030) underspend in capital expenditure in 2027-28 results in a financing benefit over the determination period of $1.03 million (at 30 June 2030, $2024-25)
- the NPV of underspend for the 2025-26 to 2029-30 period of $11.03 million (at 30 June 2030, $2024-25)
- the business's share of the capital expenditure underspend is $2.21 million (at 30 June 2030, $2024-25),
- the NPV CESS payments to be included in the subsequent determination period of $1.17 million (at 30 June 2030, $2024-25) (i.e. the value of the underspend less the amount of financing benefit already received).

A.3.2 Capital expenditure deferral

Table A.6 sets out an illustrative example of a $10 million ($'real, 2023-24) deferment in capital expenditure from 2027-28 to 2031-32.

Table A.6 Impact of a one-off reduction in operating expenditure in 2027-28 (real, $ million, 2024-25)

	Determination period 1				
Year	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**
Discount rate	4.0%	4.0%	4.0%	4.0%	4.0%
Capex forecast	100	100	100	100	100
Actual capex	100	100	90	100	100
Underspend	0	0	10	0	0
Financing benefit			0.20	0.39	0.39
Discount factor	1.19	1.15	1.10	1.05	1.02
NPV underspend	0	0	11.03	0	0
NPV financing benefit	0	0	0.22	0.42	0.40

	Determination period 2				
Year	**2030-31**	**2031-32**	**2032-33**	**2033-34**	**2034-35**
Discount rate	4.0%	4.0%	4.0%	4.0%	4.0%
Increase in forecast capex in period 2 attributable to capex deferred in period 1	0	10	0	0	0
NPV of increased capex	0	9.43	0	0	0

The incentive payment under the CESS would be calculated as follows:

- a $10 million ($'real, 2024-25) deferment in capital expenditure from 2027-28 to 2031-32 is valued at $11.03 million (at 30 June 2030, $2024-25) during determination period 1
- the NPV of underspend adjusted for deferrals in the subsequent determination period is $1.60 million (at 30 June 2030, $2024-25)
- the business' share of the adjusted capital expenditure underspend is $0.32 million (at 30 June 2030, $2024-25)
- the total financing benefit received by the business is $1.03 million, and so
- the NPV CESS payments to be included in the subsequent determination period is -$0.71 million (at 30 June 2030, $2024-25).

Practically, this means that the deferred capital expenditure of $10 million ($'real, 2024-25) is added to the water business' 2031-32 capital expenditure allowance, and the business needing to repay customers $0.71 million (at 30 June 2030, $2024-25) as the financing benefit received during the 2026 to 2030 determination period is greater than its share of capital expenditure efficiency.

B Glossary

Table B.1 Glossary

Term	Definition
Capital efficiency sharing scheme (CESS)	An incentive scheme to provide water businesses with a fixed share of any efficiency gains (or losses) associated with capital expenditure during a Determination period.
Determination period	The period of time over which a determination of maximum prices applies.
Discount factor	The factor used to modify an annual amount to convert it to net present value terms.
Efficiency benefit sharing scheme (EBSS)	An incentive scheme to provide water businesses with a fixed share of any efficiency gains (or losses) associated with operating expenditure during a Determination period.
First Determination period	The Determination period immediately following the adoption of incentive schemes for a water business.
Financing benefit	The benefit obtained by a water business as a consequence of actual outturn expenditure differing from forecast expenditure at the time of a regulatory determination.
Incentive payments	The amount calculated through the application of an incentive scheme that is used to modify the revenue requirement in a subsequent Determination period.
Net present value (NPV)	The discounted value of a stream of benefits (or costs) taking into account the time value of money.
Outcomes delivery incentive (ODI)	An incentive scheme to provide financial benefits (penalties) for achieving (not achieving) customer agreed outcomes
Permanent efficiency gain	The value of an underspend (or overspend) assuming that it is a permanent expenditure change.
Revenue adjustment	The amount by which the annual revenue requirement is adjusted in line with the incentive schemes.
Revenue requirement	The sum of the efficient building block costs, used as the basis for setting maximum prices for regulated services.
Service outcome	Is a defined outcome based on customer engagement, that is intended to be subject to the ODI.
Sharing ratio	The fixed ratio of sharing of gains (or losses) between customers and a water business.
Underspend	Actual expenditure savings in any year of a Determination period compared to forecast expenditure. A negative underspend is an overspend.
Weighted average cost of capital (WACC)	The post-tax real cost of capital as determined by IPART as part of a regulatory review.

[1] IPART, *Delivering customer value, Our water regulatory framework: Technical Paper* November 2022.
[2] IPART, *Delivering customer value, Our water regulatory framework*, November 2022.