Independent Pricing and Regulatory Tribunal | NSW

Delivering customer value

Draft Water Regulatory Framework: Technical Paper

May 2022

Water

Tribunal Members

The Tribunal members for this review are:

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Invitation for submissions

IPART invites comment on this document and encourages all interested parties to provide submissions addressing the matters discussed.

Submissions are due by Friday, 12 August 2022

We prefer to receive them electronically via our online submission form.

You can also send comments by mail to:

Water regulatory review
Independent Pricing and Regulatory Tribunal
PO Box K35
Haymarket Post Shop, Sydney NSW 1240

If you require assistance to make a submission (for example, if you would like to make a verbal submission) please contact one of the staff members listed above.

Late submissions may not be accepted at the discretion of the Tribunal. Our normal practice is to make submissions publicly available on our website as soon as possible after the closing date for submissions. If you wish to view copies of submissions but do not have access to the website, you can make alternative arrangements by telephoning one of the staff members listed above.

We may decide not to publish a submission, for example, if we consider it contains offensive or potentially defamatory information. We generally do not publish sensitive information. If your submission contains information that you do not wish to be publicly disclosed, please let us know when you make the submission. However, it could be disclosed under the *Government Information (Public Access) Act 2009* (NSW) or the *Independent Pricing and Regulatory Tribunal Act 1992* (NSW), or where otherwise required by law.

If you would like further information on making a submission, IPART's submission policy is available on our website.

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

This paper explains the draft decisions that will support our proposed 3Cs pricing framework for regulating water businesses. For each draft decision, it provides our analysis and reasons for the decision, including how we considered stakeholder submissions.

The paper should be read in conjunction with the Draft Report which explains how the 3Cs framework works as a package to promote the long-term interest of customers. We are seeking submissions on our proposed package of reforms, and will work with stakeholders to develop guidance materials for water businesses implementing the framework going forwards.

This Technical Paper is structured as follows:

- Chapter 2 sets out the goals of the 3Cs framework
- Chapter 3 explains how the proposed regulatory process will work, and how we will tailor our regulatory approach based on a business's proposal
- Chapter 4 outlines the role of financial incentives to promote cost efficiencies and improvements in service-level performance
- Chapter 5 lists the common elements of price reviews for all businesses
- Chapter 6 clarifies how the proposed 3Cs framework addresses the changing needs of water businesses across and within regulatory periods
- Chapter 7 discusses how we will monitor ongoing performance of water businesses under the 3Cs framework.

As outlined in the Draft Report, we seek stakeholder feedback on our draft decisions by 12 August 2022.

1.1 We have listened to the sector in developing the 3Cs approach

Over the past 18 months we have reviewed our approach, with a transparent and extensive public consultation process. Through our consultative process we heard from a range of stakeholders that our regulatory approach should be updated so that it better supports water businesses investing prudently in the infrastructure and technology needed for the future and providing services that their customers value and can afford

Water businesses agreed that the regulatory framework should encourage each business to promote customer value, and the customer voice needs to be central to the regulatory process. As Sydney Water said:

> 'The regulatory framework should give utilities clearer incentives to encourage them to deliver better long-term performance, in the long-term interests of customers'[1]

Hunter Water emphasised the importance of focusing on customer outcomes:

> 'The customer voice should be heard and form an integral part of our business decisions-making. This is not about improving engagement for its own sake… The regulatory framework should drive the water businesses to identify, understand and deliver the outcomes and levels of service that customers want.'[2]

At the same time, water is an essential service and successful businesses must address broader community, health and environmental risks. The NSW State Water Strategy has highlighted the growing challenges the sector faces in addressing environmental and climate risks and meeting the needs of growth. Our framework, and regulatory principles, need to recognise these factors, as summarised by the Public Interest Advocacy Centre (PIAC):

> 'Water is unique in its role as an essential foundation for the health, wellbeing and prosperity of the community and environment. Regulating water businesses must integrate the needs of human health, social responsibility, affordability, efficiency, and environmental sustainability. Responding to the risks imposed by climate change, and the increasing insecurity of water resources is also a central consideration.'[3]

As an incentive-based regulator, our approach is to create a framework that provides the businesses with incentives that align with promoting the long-term interests of customers. Our framework needs to motivate and reward pricing proposals that deliver customer value. Sydney Water also proposed such an approach:

> 'At present, [IPART's] incentive regulation is low-powered. IPART needs to think of equity return as a lever to generate incentives and create long-term customer benefit. This type of performance framework is a strong feature of reforms delivered elsewhere.'[4]

To ensure that our focus as a regulator is proportionate to the issues that matter most to customers, our regulatory framework can be better tailored to the different customer bases, sizes and services provided by the businesses we regulate. As Essential Water and Sydney Desalination Plant put it simply:

> 'The ability to tailor the regulatory framework is particularly important."[5]
>
> '…it will be important for IPART to tailor its principles and assessment criteria to the different circumstances of the different businesses that it regulates.'[6]

Our framework needs to promote good performance over time. We need to change the current perception that we approve or disallow individual projects, to a model that rewards businesses that demonstrate, through their actions and performance, that they are best meeting customers' preferences. This aligns with the comments made by the Central Coast Council and WaterNSW:

> 'Currently proposed business investments are based on key projects in a bottom up approach. Often resulting in focus being placed on key projects rather than an aggregate approach which defines investment via envelopes of funding. This approach creates a culture…that IPART has approved or disallowed projects for the next determination period.[7]
>
> To the extent that incentives are in place to encourage the business to 'reveal' its efficient costs, this results in less need for detailed expenditure reviews.'[8]

As emphasised by WSAA '*Efficiency and innovation will be key to meeting the challenges of balancing service delivery with affordability*.'[9] Removing the hurdles and disincentives we have identified in our review, and providing financial, reputational and process rewards for the businesses that demonstrate they are acting in the long-term interests of customers, will enable the businesses to drive improvements in efficiency and innovation.

1.2 Our framework builds on successful elements from other regulatory models

We have consciously and carefully leveraged successful elements from other regulators' approaches which we consider are suitable in the NSW context. The 3Cs framework is closely aligned with those of the Victorian Essential Services Commission and Australian Energy Regulator (Table 1). We have also engaged with UK regulators: Ofwat, Ofgem, and Water Industry Commission for Scotland on their experiences which have also inspired our framework design.

We have had the advantage of being able to consider our regulatory framework after these other regulators have implemented a wide range of improvements in their respective jurisdictions. We have retained the foundations of the current regulatory framework which we consider remain fit-for-purpose – e.g. a propose-respond review process and a building-block approach for assessing efficient revenue needs.

Our proposed framework represents an evolution to our current approach. We will continue to hold businesses accountable for being efficient and delivering value for money, consistent with our role under NSW legislation. The 3Cs framework forms the central part of how IPART fulfils its legislative water pricing function, including to consider the matters under section 15 of the IPART Act when making determinations and recommendations.

Table 1 Comparison of regulatory models

IPART's proposed 3Cs framework	Vic ESC[10]	AER[11]	Ofwat[12]
Grading according to criteria/principles	✓		✓
Tracking and publishing performance	✓	✓	✓
Targeted pricing reviews linked to performance	✓	✓	✓
Ex-post reviews by exception	✓	✓	
Upfront financial incentives linked to proposal and/or self-assessment	✓		✓ [a]
Financial incentives to share additional value between the business and customers (EBSS, CESS, ODI)		✓	✓
Early engagement before pricing reviews	✓ [b]	✓	– [c]
Set allowances with a building block approach	✓	✓	✓

[a] Ofwat offers menu regulation. Companies are provided with a menu of potential regulatory contracts involving pre-set incentive rates that companies choose from. This provides a financial incentive for more ambitious proposals as well as for ongoing financial and service performance.

[b] With each price review cycle under the PREMO framework, the ESC directly engages industry on the ESC's guidance, including any proposed changes to the previous price review. They facilitate workshops with industry on these changes to their guidance and key issues of focus.

[c] Ofwat provides extensive guidance ahead of pricing reviews.

2 Our draft 3Cs pricing framework focuses on customers, costs and credibility

Our framework is centred around pricing proposals that promote the long-term interests of customers. It links good proposals that deliver ongoing improvements in performance through the annual reporting of outcomes targets, the targeted use of financial, reputational and administrative incentives, and any additional operating licence conditions or regulatory requirements that are needed to promote customer outcomes.[13]

The proposed 3Cs framework is underpinned by 12 proposed principles (outlined in Table 2) which both we and the water businesses will use to develop and assess pricing proposals.

We do not want our framework to encourage a culture of cost cutting and short-term thinking, particularly if this leads to higher costs and prices, or poor water services. Instead, these proposed principles enable businesses to put customers at the heart of what they do. Every business decision should be made to promote the long-term interests of customers.

The following sections outline why we have designed the 3Cs framework around the 12 guiding principles, and what the businesses need to do provide high-quality pricing proposals. The full assessment tool is at Tables 3-5 below.

Draft decision

1. IPART will update our water pricing framework to better promote customer value, cost efficiency and credibility. These elements are referred to as the 3Cs. They are supported by individual principles that:
   - water businesses will use to guide pricing proposals that promote the long-term interests of customers
   - IPART will use to assess pricing proposals, and as a basis for its decisions, in a pricing review.

Table 2 The proposed 3Cs guiding principles

Customer principles

Customer centricity	How well have you integrated customers' preferences into the planning and delivery of services, over the short and long term?
Customer engagement	Are you engaging customers on the things most important to them, using effective methods, to add value?
Customer outcomes	How well does your pricing proposal link customer preferences to proposed outcomes, service levels and projects?
Community	Are you considering broader community objectives, including traditional custodians of the land and water, while ensuring services are cost-reflective and affordable today and in the future?
Environment	Are you delivering environmental objectives, including to address climate change, in a cost-efficient manner across the short- and long-term?
Choice of services	Are you providing opportunities to reflect customers' varied preferences for the tariffs and additional services they are willing to pay for?

Cost principles

Robust costs	How well does your proposal provide quantitative evidence that you will deliver the outcomes preferred by customers at the lowest sustainable cost?
Balance risk and long-term performance	How well do you weigh up the benefits and risks to customers of investment decisions, and how consistent are they with delivering long-term asset and service performance?
Commitment to improve value	How much ambition do you show in your cost efficiency targets and what steps have you taken to demonstrate commitment to deliver on your promises?
Equitable and efficient cost recovery	Are your proposed tariffs efficient and equitable and do they appropriately share risks between the business and your customers?

Credibility principles

Delivering	Can you provide assurance that you have the capability and commitment to deliver?
Continual improvement	Does the proposal identify shortcomings and areas for future improvement?

2.1 Customers are at the core of business decisions

Customer preferences are a core part of business decision making. The proposed 3Cs framework recognises that customer value encompasses a broad range of values beyond affordable bills, with six 'customer' principles.

Customer centricity is the focus of the 3Cs framework. The businesses we regulate are monopoly suppliers of an essential service, so they have limited or no market pressure to deliver for customers. This principle is designed to ensure businesses are putting customer preferences at the core of their decision-making, as they would in a competitive market.

They do this by conducting good **customer engagement**, to learn from their customers and formulate plans to deliver what they ask for. We have deliberately not been prescriptive in how this engagement should occur, because businesses are best placed to design a method that works for their customers. Engagement should be an ongoing process so that businesses continually update their plans and engage more effectively with customers in response to feedback and changing customer preferences.

Our third principle, **customer outcomes**, is designed to help businesses monitor whether they are performing for customers. They listen to what customers want, and then design outcomes in response. They will deliver what customers ask for and are rewarded through our framework for doing so.

A customer centric business is continually seeking to improve customer outcomes through performance improvements and/or lowering costs. By actively engaging with all customers, businesses are confident that outcomes reflect customer expectations, and business plans and strategies deliver customer value.

Water is critical to our lands, culture and economy, so it is not enough for water businesses to simply deliver their services to customers. Our **community** principle encourages businesses to give due attention to their role in delivering broader social objectives, and engage with the community, including Aboriginal peoples, as part of 'business as usual' operations.

We have added the **environment** as our fifth principle. Our environment principle encourages the business to work with customers to deliver environmental objectives efficiently.

Finally, our **customer choice** principle recognises customers have different preferences, and efficient business decisions may require varied levels of service. Our proposed framework supports businesses to innovate and pursue differentiated services, when they are in customers' interests.

2.2 Services are delivered at the lowest sustainable cost with minimal regulatory intervention

Businesses should deliver customer services and outcomes at the lowest sustainable cost, in a manner that ensures the greatest long-term customer value over the lifetime of assets. Together, our four 'cost' principles encourage businesses to prefer innovations that lead to efficiency improvements over time (i.e. dynamic efficiency), which benefits society.

Expenditure plans should contain **robust costs**. Businesses should be accurately forecasting their efficient revenue needs to ensure customers are getting value for money.

Business should show a **commitment to improve value**, striving for the industry frontier, and demonstrating how they are continuously working to deliver additional value for money to customers.

Businesses also need to show they have a sound **balance of risk and long-term performance**. Water businesses need to make decisions today, for the long-term, and balance the needs of customers today with customers in the future. This principle requires them to show how they have made these trade-offs and kept the long-term interests of customers at the core of all plans.

Finally, we have a principle on **equitable and efficient cost recovery**. Through the 3Cs framework, we are becoming less prescriptive in pricing structures, but businesses will need to show they are sending cost reflective price signals. This is particularly important when thinking about inter-generational equity and the need to send signals to promote a secure water supply.

2.3 Businesses maintain public confidence by being credible

Business commitments and proposed plans to customers must be credible in order to maintain public confidence. Our two 'credibility' principles are designed so that businesses are accountable to their customers for the decisions they make, and customers are confident that businesses are delivering quality services at an efficient cost. In recognition of this:

- **Delivering –** What businesses propose must be deliverable (and measurably so), so that they do not over-promise. We have set up a range of incentives to encourage businesses to be more ambitious in what they promise, and this principle works to ensure that these ambitions are realistic.
- **Continual improvement –** Businesses should include information on lessons learned from past regulatory periods, and strategies for long-term improvement. This recognises efficient businesses are always reflecting on how to improve.

2.4 The 3Cs framework is flexible and accommodates different types of water businesses

The water businesses we regulate are diverse. They service different geographies and populations and face unique challenges. As such, the relative importance of individual principles under the 3Cs framework may vary between businesses, and requiring all businesses to focus equally on each of the 12 principles may be inefficient.

Under our proposed approach, each business will propose focus principles from the customers and costs principles according to its customer base. The business should demonstrate its focus principles are consistent with customer preferences. For instance, retail businesses may have more focus principles from the 'Customers' pillar than wholesale businesses. IPART will generally expect each business to have at least one focus principle from both the 'Customers' and 'Costs' pillars.

The water businesses are at varying levels of sophistication, and we consider it important that all businesses have a path towards achieving an Advanced or Leading proposal in the longer-term. In providing flexibility for each business to identify focus principles, our goal is to promote continual improvement among all businesses.

2.5 We will work with stakeholders to develop guidance materials on the 3Cs framework

Draft decision

2. IPART will engage with the water businesses to develop a handbook that provides the level and type of guidance required to support water businesses' proposals under the 3Cs framework. It will be updated over time.

Our new approach should provide effective guidance that enables each business to demonstrate its proposals are in the long-term interests of customers. We want to work with industry to develop clear guidance for the businesses to implement the 3Cs framework, including:

- a 'better water regulation handbook' – to be developed with industry, and
- a detailed assessment tool – draft in Tables 3-5 below.

The better water regulation handbook will replace our current guidelines for agency submissions.

We will work to develop this handbook with industry and other stakeholders to ensure it meets the needs of water businesses and enables them to develop high quality proposals. We will hold a series of workshops following the release of this Draft Report to develop the handbook. We will also update the handbook over time as the framework evolves and we learn lessons through implementing the framework.

The intended audience for the handbook is broader than regulated businesses. It is also an important reference guide for other stakeholders and interested parties, such as government and customers, to understand IPART's regulatory framework.

Our handbook and assessment tool will not prescribe any particular model for customer engagement because we consider the water businesses are best placed to understand what will work for their customers. Rather, the assessment tool is intended to set expectations, and includes a rubric of principles to differentiate between Standard, Advanced and Leading proposals.

This guidance is intended to promote clarity for businesses – we are setting out the key outcomes we expect businesses to deliver, without presuming to know what the specific outcomes are. Businesses will tell us the outcomes their customers want, and provide appropriate evidence in support of this.

Tables 3-5 below show our draft assessment tool, which we will workshop with industry to clarify and refine in the coming months.

Table 3 Guidance for customer principles

1. Customer centricity

How well have you integrated customers' preferences into the planning and delivery of services, over the near- and long-term?

Standard Expectations	**Advanced** Additional expectations to standard	**Leading** Additional expectations to advanced
Develop customer engagement strategy		
• The business has a published customer engagement strategy which: – sets out how it seeks to understand what matters to customers, and identifies the outcomes that maximise long-term customer benefit at an efficient cost – considers the level of influence customers have in how services are delivered – identifies the role of customer engagement in understanding customer preferences – commits to engage with customers in the *pricing proposal* and for *major investments* • The strategy should be well structured and easy for customers to follow, and articulate clear roles and responsibilities of customers, regulator(s) and business	• The strategy demonstrates that customers have a high level of influence in how services are delivered, and commits to gain insights from customers through a variety of methods	• The strategy empowers customers to co-develop the most material aspects of its pricing proposal that impact price and service
Customers influence business outcomes		
• Customer insights and engagement influence customer outcomes, inform business decisions, and short, medium and long-term plans.	• Customer insights are linked to customer outcomes, which inform ongoing improvements in the way services are delivered to customers.	
Processes support customer centricity		
• Systems in place to respond to ongoing customer feedback	• Learns from and keeps up with peers and industry best practice engagement methods	• Clear evidence of continual improvement in customer value across the business where it reflects on, and incorporates, learnings from its engagement processes

2. Customer engagement

Are you engaging customers on what's most important to them, using effective methods, to add value?

Standard Expectations	**Advanced** Additional expectations to standard	**Leading** Additional expectations to advanced
Engage on what matters to customers		
• Select issues for engagement that matter to customers	• Customers involved in setting priorities that matter most for deeper engagement	• Collaborates with and empowers customers (and/or customer representatives) to develop solutions in customers' long-term interests
Choose appropriate engagement methods		
• Suitable consultation method/s have been chosen to reach a representative customer base and/or their advocates, such as renters, home-owners, vulnerable groups, and businesses • Opportunities for customer 2-way communication exist • Scope of engagement proportional to the level of expenditure and the impact of the project	• Chooses effective methods to provide all customers – including more difficult-to-reach customers – with a high level of influence in how services are delivered. Responses are then triangulated and tested against other information.	• Continuously seeks to improve methods of engagement and explore innovative methods.
Engage effectively		
• Unbiased, clear explanation of context and objectives • Participants are informed of the impact of their feedback • Engagement is easy-to-understand, and customers' understanding is tested to support engagement with culturally and linguistically diverse groups • Information is accurate, objective, tells the whole story and is correctly targeted to its audience • Clear explanations of investment options, service levels, and uncertainties	• Engagement includes clear explanation of options (including price differences and service quality trade-offs), and participants are confident their feedback will influence outcomes.	

3. Customer outcomes

How well does your pricing proposal link customer preferences to proposed outcomes, service levels and projects?

Standard Expectations	**Advanced** Additional expectations to standard	**Leading** Additional expectations to advanced
Customers drive outcomes		
• Propose outcomes, based on customer engagement, that capture what customers want you to deliver • Link proposed expenditure to these outcomes	• Outcomes are concise, specific, measurable and written from customer's perspective. They are clearly aligned to customer preferences and proposed expenditure	• Outcomes and supporting output measures and targets are co-designed with customers, and proposals are supported by customers
Performance measures support outcomes		
• Propose performance measures for each outcome • Propose performance targets for each measure, referencing IPART's principles, with: – internally consistent short, medium and long-term targets – targets justified based on past performance and other suitable industry benchmarks – targets that, at a minimum, meet customer protection and operating licence standards	• Targets show a step change improvement to customer value, and include adequate protections for individual customers	• Where supported by customer WTP, service targets exceed past performance and other suitable industry benchmarks by an ambitious but realistic margin
Accountability for customer outcomes		
• Clear mechanisms ensure the business is accountable for delivering outcomes.	• All outcomes include steps the business will take if not meeting targets, and where appropriate, are supported by outcome delivery incentive (ODI) payments/penalties	• All important customer outcomes with high customer value supported by ODI payment/penalty rates and targets

4. Community

Are you considering broader community objectives, including traditional custodians of the land and water, while ensuring services are cost-reflective and affordable today and in the future?

Standard Expectations	**Advanced** Additional expectations to standard	**Leading** Additional expectations to advanced
Identify community outcomes		
• Consider the broader community, including Aboriginal communities, to identify community outcomes. • Assess the benefits and costs to the customer of delivering on broader community values, as they relate to the provision of regulated services • Consider costs/benefits and bill impacts before proposing expenditures	• Outcomes have demonstrated customer value and support, with awareness of bill impacts	• Demonstrate step change improvements in community outcomes, which prioritise customer preferences revealed through engagement
Community outcome performance measures		
• Community outcomes have targets that are measurable, have intermediate steps and milestones built in (as needed)	• Work and partner with local groups and other stakeholders to propose and deliver community outcomes within the scope of its services	• Demonstrate innovative approaches to promote customer and community value
Accountability for community outcomes		
• Clear mechanisms ensure the business is accountable for delivering community outcomes.	• Mechanisms include steps the business will take if not meeting targets	

5. Environment

Have you identified and met broader environmental objectives, while ensuring services are cost reflective and affordable today and in the future?

Standard Expectations	**Advanced** Additional expectations to standard	**Leading** Additional expectations to advanced
Identify environmental outcomes		
• Meet all regulatory requirements, including environmental requirements, at an efficient cost • Follow government directions and obligations • Set environmental outcomes that relate to the provision of regulated services, consistent with customer preferences, community views and waterway quality guidelines • Consider long-term environmental costs/benefits and bill impacts before proposing expenditures • Propose cost-efficient expenditure to manage and adapt to the impacts of climate change	• Actively engage with other regulators, evaluate prospective government directions and obligations from the perspective of promoting the customer's long-term interests • Incorporate climate change into forecasting models and undertake climate change adaptation and mitigation actions.	• Demonstrate step change improvements in environmental outcomes, revealed through engagement, which prioritise delivery of environmental outcomes that customers and the community value most
Environmental outcome performance measures		
• Environmental outcomes have targets that are measurable, have intermediate steps and milestones built in (as needed)	• Work and partner with community groups, other businesses, stakeholders and government, to propose and deliver outcomes that meet regulatory requirements, promote customer value and provide environmental benefits	• Demonstrate innovative approaches which promote customer value and maximise environmental benefits
Accountability for environmental outcomes		
• Clear mechanisms ensure the business is accountable for delivering environmental outcomes	• Mechanisms include steps the business will take if not meeting targets	

6. Choice of services

Are you providing opportunities to reflect customers' varied preferences for the tariffs and additional services they are willing to pay for?

Standard Expectations	**Advanced** Additional expectations to standard	**Leading** Additional expectations to advanced
Consider differentiated service offerings		
• No requirements at standard	• Engage with customers on opportunities for differentiated service offerings, including standard add-on mass market tariff options (e.g. carbon offsets), where it is cost efficient to do so • Work with government and developers in growth planning to offer additional services and supply options to new developments	• Offer customers innovative tariffs and products (for instance environmental products/services) above licence obligations, consistent with customers' preferences if there is evidence of customer demand

Table 4 Cost principles

7. Robust costs

How well does your proposal provide quantitative evidence that you will deliver the outcomes preferred by customers at the lowest sustainable cost?

Standard Expectations	**Advanced** Additional expectations to standard	**Leading** Additional expectations to advanced
Justify proposed expenditure		
• Proposed opex is consistent with past expenditure and clearly explains any 'step changes' or trends • Proposed capex: – is clearly explained – identifies baselines for recurrent expenditure and provides justification for any changes it proposes over time – for large capital projects with a clear scope is supported by cost-benefit analysis considering alternative options	• Changes in expenditure are supported by quantitative evidence which demonstrates how it promotes customer value (e.g. in proposing step changes for opex, and justification in business cases for large capital projects)	• Proposes opex and capex that maximises customer value, supported by modelling which shows it is below industry benchmarks.
Optimise between opex and capex		
• Demonstrates consideration has been given to opex and capex trade-offs	• Uses quantitative evidence to show that proposed opex and capex minimises net life-cycle costs	• Takes into account the potential and likelihood for cost saving innovations when proposing a balance of opex and capex
Accountability for expenditure outcomes		
• Expenditure performance targets have been identified that maintain compliance with licence conditions, other regulatory requirements, and are consistent with customer preferences	• Demonstrates how performance targets have been developed through customer engagement and deliver customer value.	• Has adopted and implemented robust processes to ensure that forecasts are justified, evidence-based and deliverable

8. Balance risk and long-term performance

How well do you weigh up the benefits and risks to customers of investment decisions, and how consistent are they with delivering long-term asset and service performance?

Standard Expectations	**Advanced** Additional expectations to standard	**Leading** Additional expectations to advanced
Understand long-term performance		
• Investment and asset management decisions demonstrate a balancing of the risks and benefits to the customer and business in terms of long-term asset and service performance		• Provides additional evidence optimising this balance of risks, using best practice, probabilistic investment decision and asset management systems
Manage risks and reprioritise		
• Demonstrates all cost drivers and has mechanisms to monitor cost risks and reprioritise expenditures and asset management strategies as necessary • Outlines its approach to manage long-term risks, including climate change	• Commits to accept more risk where it has benefits for customers. • Demonstrates it has organisational resilience to absorb cost impacts arising from changes in the operating environment.	• Minimises the value of risk factored into its forecasts and proposals

9. Commitment to improve value

How much ambition do you show in your cost efficiency targets and what steps have you taken to demonstrate commitment to deliver on your promises?

Standard Expectations	**Advanced** Additional expectations to standard	**Leading** Additional expectations to advanced
Develop cost efficiency strategy		
• The business has an approved and published cost efficiency strategy that includes: – an annual 'efficiency factor' across opex and capex – productivity improvements achieved and proposed, which highlight that the business is adopting innovations from other business's or relevant sectors – how it has performed against current period targets	• Proposal is informed by cost efficiency strategy, justifies an ambitious annual expenditure 'efficiency factor' and explains reasons for its current performance	• Proposes efficiency targets which would lead to a significant step-change in cost efficiencies below historical costs and industry cost benchmarks
Accountability for cost efficiency outcomes		
• Has clear mechanisms to ensure the business is accountable for achieving its proposed cost efficiency outcomes		

10. Equitable and efficient cost recovery

Are your proposed tariffs efficient and equitable, and do they appropriately share risks between the business and your customers?

Standard Expectations	**Advanced** Additional expectations to standard	**Leading** Additional expectations to advanced
Propose cost-reflective prices		
• Propose cost reflective maximum prices for customers, with: – modelling to justify tariffs over the next regulatory period – a balance of fixed and usage charges that takes into account the long run marginal cost (LRMC) of providing services	• Provides modelling to show that proposed prices: – are sustainable over time, and would avoid large future bill impacts – have been informed by LRMC model estimates – consider the impact of climate change on the level and structure of prices addressed • Justifies the appropriate form of price control that promotes the long-term interests of customers	• Provides comprehensive modelling to support its proposed recovery of costs, including: – catchment level LRMC estimates where appropriate (to justify demand and supply side responses to delay augmentations or prioritise investments) – longer-term pricing paths supported by long-term cost estimates
Justify within-period revenue adjustments		
• Provides a robust justification for any revenue adjustments, consistent with IPART's 'revenue hierarchy' principles.		

Table 5 Credibility principles

Credibility	Requirements (all levels)
11. Delivering Can you provide assurance that you have the capability and commitment to deliver?	• Proposed expenditures and service outcomes can be delivered in the timeframe proposed • Sets out how progress against key investments and performance targets (both short- and long-term) will be regularly monitored and communicated to its customers • Plans for foreseeable future challenges, including strategies for how it will reprioritise and adapt as changes arise • The proposal has been approved by the board (or equivalent), who endorse that the proposal would best promote the long-term interests of its customers. The proposal has evidence of a robust assurance process to ensure the veracity of information provided to IPART.
12. Continual improvement Does the proposal identify shortcomings and areas for future improvement?	• Justified self-assessment • Performance targets have been monitored and communicated to customers over the previous period, consistent with past regulatory proposals. You have justified and explained past performance to customers. • Demonstrates how experience and lessons from past regulatory period/s have been integrated into current and future/long-term strategies, where gaps remain, and how future plans will address these • Identifies any shortcomings in its proposals including its plans to address any shortfalls.

3 Tailoring our regulatory approach by assessing how well pricing proposals achieve the 3Cs

Our proposed framework enables water businesses to promote customer value by providing a flexible approach centred around the business's pricing proposal. As part of its proposal, each water business will self-assess how well its pricing proposal promotes customer value, encourages cost efficiency and is able to be credibly delivered. This process encourages each business to demonstrate it is delivering for the long-term interests of customers.

Following this, we will assess each business' proposal based on the same criteria, and whether the proposal promotes the 3Cs at a Sub-standard, Standard, Advanced or Leading level. Performance against the 3Cs framework and the water business's proposal will determine our approach to expenditure reviews, use of financial incentives, and provide the business with greater flexibility to choose between alternative regulatory mechanisms.

How stakeholders have shaped our thinking

We introduced the concept of tailoring our regulatory approach based on the business's pricing proposal in our Third Discussion Paper. Stakeholders were generally positive about this approach but asked for more information. For instance, they could see the value in self-assessment, but sought more guidance on how to determine their grade. They were supportive of the shift to a more customer outcomes-focused framework but cautioned this will take time to implement.

One element of the framework where stakeholders were less supportive of our proposal for a six-year determination period with a midcycle check. Water businesses did not agree the midcycle check-in would add sufficient value to offset the additional work (and risks) it could create. Having further considered stakeholders' concerns we propose instead to offer an opportunity for businesses to engage early with us ahead of a price review.

3.1 Engaging early with water businesses to support customer outcomes

To successfully implement 3Cs pricing framework, we will offer the opportunity for each business to engage with IPART around two years before price reviews commence.

Draft decision

3. Water businesses can engage with IPART one to two years before a pricing proposal. 'Early engagement':
   - aims to ensure water businesses are supported and accountable for developing their pricing proposals, delivering their plans and engaging with their customers.
   - is expected for a water business that previously submitted a Standard proposal, and optional if it previously submitted an Advanced or Leading proposal

It promotes better customer outcomes, by providing a structured opportunity for each business to engage with IPART so that we have a clear understanding of how businesses are responding to our 3Cs pricing framework, and how effectively the framework promotes customer outcomes.

Early engagement is not aimed at promoting IPART involvement in pricing proposals. Each business is responsible for developing a pricing proposal which appropriately involves and engages customers in how services are delivered.

In the first round of reviews, we will ask each water business we price-regulate to engage with IPART one to two years before their pricing proposal is due. As part of this, we expect each business will:

- Provide an overview of how their customer plan will be used to develop outcomes and inform how services are delivered to customers
- Explain how it is linking these outcomes, with long-term capital planning and asset management, to cost proposals
- Explain their how their focus principles align with customer preferences (described in Chapter 2 above).

In future pricing reviews, early engagement may be optional for Advanced and Leading businesses, potentially creating another process incentive for streamlined reviews. In contrast, we may continue to expect early engagement if the business's previous pricing proposal was assessed as Standard. We may also request to conduct an additional systems and processes review in advance of the next pricing review, depending on whether we identified any areas of particular concern on our previous review.

3.2 Water businesses self-assess how well their pricing proposals achieve the 3Cs

Draft decision

4. Water businesses will demonstrate how well their pricing proposals promote customer value, encourage cost efficiency and whether they can be credibly delivered, by self-assessing whether their pricing proposals meet the 3Cs framework at a Standard, Advanced, or Leading level.

When submitting its proposal, each business will self-assess and decide at what grade its proposal promotes customer value and cost efficiency (based on the assessment tool proposed in Section 2.5).

The three grades are:

- **Leading** – for businesses that are industry leaders in understanding their customers and are committed to innovating to deliver services customers want and driving cost efficiencies. The business also demonstrates how it delivers a significant improvement in customer value through a combination of quantitative and qualitative evidence.
- **Advanced** – for businesses that demonstrate very strong understanding of their customers, and are broadly at the cost efficiency frontier
- **Standard** – for businesses that engage in customer engagement and have a credible path towards the cost efficiency frontier. This grade is consistent with good practice in the NSW water sector.

In deciding its grade, the business will refer to the 12 guiding principles outlined in Chapter 2, We do not expect businesses to ascribe a grade for each underlying principle. Instead, it should provide an overall assessment. This is because we do not want to be prescriptive and take the focus away from the business delivering value for customers.

We propose to introduce self-assessment as part of the pricing review process to promote businesses holding themselves accountable to their customers. The framework provides rewards for businesses that undertake a self-appraisal (and seek continual improvement):

- A business can earn a financial reward if its self-assessment matches the rating we ascribe it (see Section 3.6 below). This feature helps ensure that businesses are realistic in their self-assessment. Businesses are encouraged to provide higher quality information to us to support their self-assessment as submitting an Advanced or Leading proposal without supporting evidence would have financial consequences.
- The scope and focus of our expenditure review process is then informed by how aligned our assessment is to the business's self-assessed grading.

3.3 Water businesses should provide key information to support proposals

Draft decision

5. Water businesses will provide information to support self-assessments, including:
   - proposed customer outcomes and performance targets, and as applicable, how these are complemented by operating licence conditions and/or incentive schemes
   - a nominated efficiency factor, that is substantiated with activities to deliver on this commitment
   - supporting evidence that its focus principles are consistent with customer priorities
   - Board (or equivalent) endorsement that the pricing proposal best promotes the long-term interests of its customers

In submitting a pricing proposal, all businesses should include key supporting information.

An overview of its customer outcomes and performance targets

We ask each business to propose a set of customer outcomes in pricing proposals, with performance measures and targets to support these outcomes, and to outline how the business will be held accountable for these outcomes.

This recognises that the inputs used to deliver the result are not as important as delivering the outcome.

The outcomes do not replace operating licence conditions. For those water businesses that have an operating licence, it continues to set minimum protection for customers and ensure reliable services. ODIs and outcome targets aim to 'optimise' service levels and allows businesses to reveal efficient levels of service provision given customer preferences.

An efficiency factor it has nominated and substantiated with activities to deliver on this commitment

In the past we have commonly applied a 'continuing efficiency factor' to represent expected productivity improvements that businesses should seek to capture over the determination period.[d] However, we consider the businesses are better placed to nominate and justify a realistic, yet challenging, target.

We propose that businesses will nominate an ongoing efficiency factor in their proposals.

[d] We have recently based this on the long-term (around 40 years) average of Australia's multi-factor productivity. (IPART, Review of Prices for Hunter Water from 1 July 2020, June 2020, p 203.)

Businesses should also identify a discrete list of efficiency gains made and forecast. For example, applying best practice procurement/contracting and/or decision-making practices could enhance a business's ability to capture productivity improvements. This relatively simple change will emphasise finding efficiencies and help stakeholders corroborate proposed productivity gains.

In the future, the ability to deliver the proposed efficiency factor could inform our confidence in the efficiency (or otherwise) of expenditure, thereby allowing us to streamline reviews.

Board endorsement that the pricing proposal best promotes the long-term interest of customers.

One of the focus areas we identified for this review was how our regulatory framework can 'lift the performance' of the sector. Greater Board or Council accountability for its business's proposal could support organisational improvements, focus the Board or Council on key elements of the proposal and demonstrate its ownership of proposals.

Under our current framework we require a CEO's declaration of pricing proposals. There is no endorsement that the pricing proposal would promote the long-term interests of customers. Instead, it focusses on the accuracy of numbers.

We propose each Board or Council (or equivalent) approve its business's pricing proposal.

The declaration demonstrates the Board's or Council's ownership of the proposal – and provides transparency that it is confident the proposal would deliver in the long-term interests of its customers.

3.4 We will assess pricing proposals using the 3Cs framework

Draft decision

6. IPART will assess whether we agree with the water business's self-assessment that its proposal meets the 3Cs framework at a Standard, Advanced, or Leading level.
   – IPART will require a water business that submits a sub-standard pricing proposal to resubmit within six months.

Assessing how well pricing proposals promote customer value provides reputational, financial and procedural incentives for the businesses to deliver in the long-term interests of customers. It helps to address information asymmetries by aligning the incentives of the business, its shareholder, and IPART, to customer outcomes.

We will assess whether a business's proposal promotes the 3Cs framework at the following grades:

1. **Leading** – for businesses that are industry leaders in understanding their customers, committed to innovating to deliver services customers want and driving costs efficiencies.

2. **Advanced** – for businesses that demonstrate a very strong understanding of their customers and are broadly at the cost efficiency frontier.
3. **Standard** – for businesses that engage in customer engagement and have a credible path towards the cost efficiency frontier.
4. **Sub-standard** – for unacceptable proposals that do not promote the long-term interests of customers. A business that earns this grade will be required to submit a new proposal within six months. We consider it unlikely a proposal will fall into this category.

We have chosen four grades to reflect and reward step changes in performance that will benefit customers, rather than try to measure and reward small changes in performance

Our assessment is not intended to be a simple weighted average of the 'score' for each of the 12 principles. Scoring each principle separately would require IPART to make value judgements about whether performance in one category is more or less important than another, when these trade-offs should be driven by customers. Each business will identify focus principles for a pricing review to reflect the most important priorities for its customers.

Our review will highlight the key areas that informed our overall assessment.

Our assessment is then interlinked to all other key elements of the framework to ensure that businesses are rewarded if they deliver improvements in performance.

3.5 Reputational incentives for water businesses to provide high-quality pricing proposals

Businesses earn a strong reputational reward if they receive an 'Advanced' or 'Leading' assessment. It is tangible evidence that management and decision-makers can use to show customers and shareholders that they are promoting customer value.

Reviewing proposals every five years also elevates the reputational effect of achieving an Advanced or Leading rating. If a business is motivated by achieving – and maintaining – a high rating, the risk of being downgraded due to underperforming against targets (such as cost savings or service delivery targets) will also encourage ongoing performance.

3.6 Financial incentives for pricing proposals which promote customer value

Draft decision

7. IPART will provide financial rewards and penalties depending on our assessment of the water business's proposal against the 3Cs framework. We will provide a financial reward – calculated as a percentage of the revenue requirement – where we agree with the water business that its proposal is Advanced or Leading.

Businesses can earn a financial reward from delivering high quality proposals. We will provide an additional revenue allowance, expressed as a percentage of the business's revenue requirement, where we agree with the business that its proposal is Advanced or Leading. We consider this financial reward is important to incentivise businesses to innovate and deliver additional customer outcomes.

The financial reward, or penalty the business will receive from our assessment will depend on:

- the business's assessment from its previous pricing proposal (our prior expectation)
- the assessment the business assigns itself (i.e. its self-assessment)
- our assessment of the pricing proposal.

For the purpose of financial incentives, each business is considered 'Standard' until its first price review under the 3Cs framework. Following this, the assessment from the last review will be the starting grade for the next review.

1. If a business's previous pricing proposal was assessed as a Standard proposal, it will receive a financial reward for making a step change in performance to an Advanced or Leading level as described in Table 6.
2. If the business is already operating at an Advanced level, it will be expected to submit a pricing proposal that meets this level (Table 7). In our view, a reward is earned the first time a business moves from a Standard to an Advanced business. A new expectation of performance is then set. If in future an Advanced business's performance backslides, there is a symmetric consequence for underperformance, providing a strong incentive to maintain ongoing performance.
3. At a Leading level, however, our prior expectation is that future proposals will be at an Advanced level. This distinction reflects our view that Leading businesses are actively shifting the cost efficiency frontier. A Leading rating should be difficult to sustain.

Table 6 Our 3Cs assessment table for a business previously assessed as having a Standard proposal (% of annual revenue requirement)

	Business's self-assessment		
IPART's assessment	**Leading**	**Advanced**	**Standard**
Leading	2.5%	1.75%	n/a
Advanced	1%	1.25%	0.5%
Standard	-1%	-0.5%	0%

Table 7 Our 3Cs assessment table for a business previously assessed as having an Advanced or Leading proposal (% of annual revenue requirement)

	Business's self-assessment		
IPART's assessment	**Leading**	**Advanced**	**Standard**
Leading	1.25%	0.5%	n/a
Advanced	-0.25%	0%	-0.5%
Standard	-2.25%	-1.75%	-1.25%

3.7 We will tailor our regulatory approach depending on how well pricing proposals achieve the 3Cs

Draft decision

8. IPART's assessment of the water business's proposal against the 3Cs framework will be used to determine our approach to expenditure reviews and to tailor key decisions in a review.

While our proposed assessment approach is consistent across all businesses, we propose to tier the form of regulation to the scale and sophistication of the business. The form of regulation will depend on our rating, which in turn will be influenced by the business's preferences for its form of regulation, the business's scale and sophistication, and the needs of its customers.

We will tier our regulatory approach in three areas, outlined below:

- expenditure reviews
- form of price control
- pricing flexibility.

In addition, Advanced or Leading proposals will access financial incentive mechanisms detailed in Chapter 4. These mechanisms will provide the business with better incentives to promote customer value, by sharing the value of improved performance between the business and customers (as we would expect to see in a competitive market where a business has performed well and gained market share).

Our tiered approach is important for a few reasons. First, it supports the efficient allocation of IPART's and the business's time to the 'key' issues. Second, and more critically, it provides additional incentives to reward high-quality proposals from the business. Third, the financial incentives for ongoing performance allow us to streamline future reviews. This is because they provide confidence that the business's historical expenditure is efficient and reliable for setting future prices.

Expenditure reviews

In general, a business that has put forward a high-quality proposal (which promotes the 3Cs principles) should expect a more streamlined expenditure review. It has demonstrated its proposed costs are in customers' interests, and should not need a high level of scrutiny.

This does not necessarily imply that a 'Standard' business automatically faces a fulsome expenditure review by cost consultants, and that a Leading proposal automatically faces a lower level of scrutiny. Indeed, a business that correctly self-assesses its proposal as Standard, and carefully justifies what it is doing to meet that level, could have a targeted review. And a business that achieves an Advanced or Leading grade may face more focused expenditure reviews to the areas where there is greatest uncertainty, or where genuinely new ways of doing things have been proposed.

The streamlining of expenditure reviews falls out of the framework naturally. An asymmetry of information always exists between a regulator and regulated entity, and the expenditure review attempts to verify the efficiency of the business's proposed costs. However, the 3Cs framework better aligns IPART's and the businesses' goals: creating value for customers, so the need for forensic review of costs should be reduced.

Form of price control

Advanced and Leading proposals will be able to propose different forms of price control. The two most common are price caps and pricing methodologies set by reference to maximum revenue (revenue caps), explained in Box 2 below.

We consider that businesses should propose forms of price control in the long-term interests of customers. We believe there are strong benefits to customers of both forms of price control and will allow moves towards revenue caps where businesses make a convincing case it is in the interests of customers.

Box 1 Forms of price control

Under a simple price cap, the regulator sets prices for the period. Customers can predict their bills and have control over the regulatory period. Conversely, the business is exposed to short-term fluctuations in revenue. For example, customers can lower their bills through reducing their usage, however if too many customers reduce their water use the water business's revenue will fall.

IPART has historically offered more price caps with additional flexibility built in through:

- Cost pass-throughs – such as desalination plant costs.
- Demand volatility allowances – which adjust revenues in the next period for material differences between forecast and actual water sales.

This has passed some of the risks of drought and demand to customers. We used our demand volatility allowance for the first time in 2020, returning around $18 million to Sydney Water customers given higher than forecast sales between July 2016 and June 2019.[14] This reflected that the water businesses recovered more revenue from customers in the previous period than the previously assessed efficient cost to deliver services.

Under a simple revenue cap, the regulator sets the revenue for the period, with the water business's prices changing every year to recover the revenue requirement. This transfers demand risk from the water business to its customers, who have greater bill volatility and less control over their bills within each price path.

Flexible pricing

A consequence of the current framework (whereby everyone is delivered the same service) is that businesses may be missing opportunities to provide tailored services to individual customers, or a distinct group of customers, who are willing to pay for it.

We propose to introduce more flexibility for customers in their water services, through 'customer choice pricing'. This flexibility will allow businesses to cater their services to groups of customers, where there is value in doing so, and provided the costs and revenues are ring-fenced.

At present, we typically defer setting prices for large non-residential customers who have an unregulated pricing agreement with the business, but this does not extend to residential or smaller customers. We can see there could be situations where both parties could value by varying the services offered, and we do not want our regulatory framework to stand in the way of such improvements.

Our framework should encourage a broader use of customer choice pricing arrangements for Leading and Advanced proposals, as well as exploring unregulated add-ons and services for customers who are willing to pay for them.

4 Encouraging continual improvement through financial incentives

We propose to implement financial and service performance incentive mechanisms to encourage businesses, that demonstrate a strong understanding of their customers, to pursue ongoing improvements in performance and reduced costs.

These schemes play an important role in driving dynamic efficiency by replicating the positive aspects of competition, and streamlining regulatory processes. Because these mechanisms provide the business with balanced incentives to improve financial and service performance, IPART can use these to have confidence that business's decisions are efficient, and therefore place less reliance on expenditure reviews by consultants.

This chapter also outlines our proposal to assess requests for separate innovation funding mechanisms on a case-by-case basis.

How stakeholders have shaped our thinking

We proposed introducing financial and service performance incentive mechanisms in our Third Discussion Paper.

Water businesses generally consider that the current framework, which focuses on costs over a four-year period, promotes short-term thinking. But they were cautious about introducing incentive mechanisms, expressing concerns that these schemes introduce complexity and could expose the business to downside financial risk.

While we have maintained our position to introduce these schemes for Advanced and Leading proposals, in this chapter we aim to clarify why we consider:

- Financial schemes align ongoing performance for the business to customer value.
- These schemes support longer-term thinking and streamlined regulatory reviews.
- The current framework, without incentive schemes, creates an incentive to prioritise short-term thinking over improved service performance and long-term innovation.

4.1 Why financial incentive schemes can promote the long-term interests of customers

Draft decisions

9. IPART's assessment of the water business's proposal against the 3Cs framework will determine the financial incentives we provide for ongoing performance. We will use financial and service performance incentive mechanisms for Advanced and Leading proposals. Where the benefits exceed the costs, these proposals will have an incentive regime comprising:
   - an operating expenditure benefits savings scheme
   - a capital expenditure savings scheme, and
   - a customer outcomes delivery incentive scheme for key customer outcomes.

10. IPART will implement a shadow price for leakage to encourage efficient reductions in leakage. This will apply for water businesses with Advanced or Leading proposals who serve retail customers.

The 3Cs framework seeks to highlight Advanced and Leading proposals as ones that demonstrate a deep understanding of customer preferences and priorities. As such, we consider these businesses should have improved signals to innovate, pursue cost efficiencies and deliver service performance improvements. This supports customers being provided high value services at the lowest sustainable price. We therefore propose that Advanced and Leading proposals will access:

1. Expenditure incentive schemes for operating expenditure (EBSS) and capital expenditure (CESS), similar in design to the Australian Energy Regulator's schemes.
2. A service level incentive scheme, similar in design to Ofwat's outcome delivery incentives (ODIs).

These schemes will allow businesses to retain 20 per cent of the value of an efficiency gain or service improvement. They promote longer-term thinking as they:

- Create a financial incentive that rewards businesses that make longer-term trade-offs that benefit customers.
- Support streamlined regulatory reviews. They allow the business to demonstrate, by responding to the incentives, that its decisions are efficient. As a result, IPART is confident the business's historical expenditure efficiently promotes the long-term interests of customers, allowing IPART to rely less on expenditure review consultants.

Box 2 highlights the broader benefits of introducing incentive schemes to provide balanced incentives for service improvements and cost efficiency.

Box 2 Incentive mechanisms are important to promote decisions in the long-term interests of customers

We want water businesses to preference innovations that lead to efficiency improvements over time (i.e., dynamic efficiency), which can ultimately benefit society much more than temporary cost reductions. NSW is a climate-sensitive state, and our framework should not encourage businesses to prioritise sticking to a short-term budget over responding efficiently to drought and other temporary pressures.

Under our current approach, we aim to motivate efficiency improvements by setting businesses' revenue with a 'building block' approach. Broadly speaking, we set a revenue allowance for a regulatory period (e.g. five years). Over this period, the business then retains any difference between what it has spent and the revenue allowance that we initially set, for the remainder of the regulatory period.

Stakeholders have told us that this approach encourages a short-term focus. Under our current approach, where we generally do not apply incentive schemes:

- Short-term fluctuations in operating expenditure (opex) are rewarded and penalised much more other changes in expenditure. This may encourage shorter-term thinking and discourage efficient trade-offs between opex and capital expenditure (capex).
- Our current approach may discourage spending to improve service performance because it does not provide a financial signal to deliver better customer outcomes.

Our current framework also provides the option for each business to claim for additional 'permanent' opex efficiencies through a discretionary Efficiency Carryover Mechanism (ECM). In practice, the ECM has rarely been used. This may reflect that the ECM was not designed to address the two points above.

We propose introducing incentive schemes to allow businesses that submit an Advanced or Leading proposal to retain a consistent 20 per cent share of the value of a service improvement or cost saving (i.e., an efficiency gain).

The proposed financial incentive framework is aligned to customer value because it:

- supports efficient, and longer-term price vs. performance trade-offs by water businesses, and
- ensures customers receive most of the benefit from efficiency savings achieved by businesses.

Businesses also benefit from the ability to share temporary cost fluctuations with customers, encouraging them to respond to drought and other temporary pressures. At the same time, businesses are encouraged to seek out more innovative solutions to reduce costs over time.

Box 2 Incentive mechanisms are important to promote decisions in the long-term interests of customers

The proposed framework encourages businesses to make longer-term trade-offs that benefit customers. For example, under these schemes, a business is better off investing today to lift future service standards, if it has a net benefit to customers in present value terms. Similarly, it encourages businesses to make trade-offs between opex and capex that reduce lifecycle costs, even if they increase operating costs in the short-term. Under the current regime, the business is not strongly motivated to make these trade-offs on an ongoing basis.

Our use of financial incentives for Leading and Advanced proposals work as a package with the up-front financial rewards for high-quality proposals. The assessment process provides additional revenue for ambitious proposals, to recognise and support innovative activities that will drive customer value. The financial incentives then provide accountability for the business to deliver on its proposed costs and service levels. They ensure that customers do not pay if the business does not deliver on its proposals, while motivating and rewarding further improvements over time.

4.2 An EBSS will support efficient recurrent expenditure by water businesses

Our proposed operating expenditure savings scheme (EBSS) is similar in design and operation to the AER's efficiency benefit sharing scheme (EBSS). The AER's scheme has been effective in motivating electricity transmission and distribution businesses to make year on year efficiencies savings in opex.

The main difference to the AER's schemes is that water businesses will retain 20 per cent of the net present value (NPV) of any incremental reduction in operating expenditure. Under the AER's scheme, the business retains the benefits of a saving for a six-year period.[e] The reason for this difference is discussed below.

Under the EBSS, we establish the incremental efficiency 'gain' or 'loss' in opex by calculating the change in forecast opex less actual opex. By valuing the gains and losses in perpetuity, shorter-term fluctuations over a regulatory period and beyond 'net out' such that only permanent efficiency gains are paid out to consumers and the business. This characteristic also reduces risks for the businesses by enabling them to share transitory costs with customers.

[e] This equates to the business's retaining about a 15 per cent share of the benefits, based on recent interest rates.

The EBSS also accommodates:

- Temporary fluctuations in costs that may affect how we set revenues using a base-step-trend approach (see Section 5.2). An adjustment can be made so that the business only bears (or retains) 20 per cent of the temporary cost fluctuation in that base year (compared to 100 per cent under a standard building block approach). Then, over the following regulatory period, if the cost increase (decrease) was temporary, there would be no financial impact on the business.
- Cost pass throughs, such as drought costs, and other forms of 'within-period' revenue flexibility (see Section 6.1). Forecast opex can be recalculated to account for changes in allowed revenue within the period.

4.3 A CESS will ensure customers only pay for efficient investment

Our proposed capital expenditure savings scheme (CESS) is similar to the AER's capital expenditure sharing scheme. It also provides financial rewards to businesses that reduce their actual capex compared to forecast and penalises businesses that exceed capex allowances.

The key difference to the AER's scheme is that, under IPART's scheme, businesses retain 20 per cent of the NPV of any capex saving (loss) compared to forecast expenditure, with the remainder shared with consumers. Under the AER's scheme, it is 30 per cent. The difference reflects that we propose adopting a consistent 20 per cent sharing rate across our three schemes to provide balanced incentives to promote customer value.

The capex incentive mechanism also accounts for risks arising from the deferral of capex. Where a project is deferred into the subsequent period and cost forecasts materially increase on an NPV basis, an adjustment is made to incentive payments to exclude the value associated with the forecast increase in capex. This adjustment is required to prevent businesses from inefficiently deferring capex to maximise incentive payments in the short-term.

4.4 An ODI scheme will encourage better customer service

Introducing incentive mechanisms for opex and capex without corresponding schemes for service quality could create a perverse incentive for businesses to underinvest in service quality. Our proposed outcome delivery incentive (ODI) scheme complements the opex and capex incentive mechanisms above. The scheme is modelled on Ofwat's ODI framework and is conceptually similar to the AER's STPIS and CSIS schemes.

ODIs tie financial rewards and penalties to the delivery of key customer outcomes that promote customer value. 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 per cent of the value it has delivered to customers from a change in performance.

ODIs address the information gap on customer preferences by providing financial incentives for businesses to prioritise customer engagement and to deliver on the outcomes that customers value. Businesses otherwise face a financial disincentive to deliver above minimum standards set in licence requirements.

Box 3 The shadow price for leakage is an example ODI

Our proposed shadow price for leakage, which we developed as part of the First Discussion Paper, is one example of an ODI. The customer value of reduced leakage can be calculated based on how it would reduce the future costs incurred by customers, given customer demand (i.e. the long-run marginal cost of water).

Water businesses are financially rewarded for making economically efficient investments in water efficiency projects which improve leakage outcomes. Specifically, businesses will be rewarded in an equivalent method to the opex and capex incentive mechanisms, with the incremental value of water gain/loss retained by the business using a sharing ratio of 20 per cent.

For example, if the value of water is $2/kL, and the business invests $2 to reduce its leakage – either through opex or capex – it will bear a cost of $0.40 (through the EBSS or CESS). Therefore, if the shadow price for leakage is also set to $0.40/kL – that is, so that the business retains 20 per cent of the value of water saved – the business will invest in leakage reduction up to the point it is economical ($2/kL).

4.5 We have designed the incentive schemes to address key risks

This section outlines how we have designed and calibrated common elements of the incentive schemes to promote customer value.

4.5.1 Sharing 20 per cent of the present value of benefits balances incentives

We propose that incentive schemes should have a flat 20 per cent sharing rate that is calculated using an 'NPV' approach.

We consider a 20 per cent sharing ratio is appropriate because it:

1. Provides a sufficient financial incentive to encourage behavioural change, while acknowledging that incentive schemes (particularly service incentive schemes) can never fully capture all factors that affect costs and performance. If we set the incentive rates too high there is a risk that the business will only prioritise the outcomes that directly impact financial performance.

2. Ensures the schemes provide benefit to consumers. Under these schemes, the business retains its share of the benefit of an efficiency gain first, before it is then passed through to the customer over time. But there is always a risk of regime changes, or structural changes in the industry, that mean the benefits are not truly permanent.
3. Is broadly consistent with the current real rates of return.

We consider an 'NPV' approach is the most appropriate method to calculate gains or losses. Broadly, incentive schemes can be designed in two ways:

1. The calculated gain or loss in a year can be retained for a fixed period of time by the business.
2. A share of the present value of the calculated gain or loss in a year is retained by the business.

We favour a present value approach because the power of the scheme does not change over time as interest rates, or the length of the regulatory period, change.

4.5.2 Capping the size of the revenue adjustment to account for risks

We propose capping the size of the incentive payments under the incentive schemes, because it guards against unintended consequences or unforeseen events that occur.

We propose that the total cap on incentive payments will apply globally, as a net payment across the three schemes. This provides maximum flexibility for businesses to make price vs service, and opex vs capex, trade-offs within the cap. If the business reaches the cap within the period, it will still be rewarded (penalised) for additional efficiencies (inefficiencies) throughout the period, based on standard building block incentives.

We will ask businesses to propose how much revenue they risk in the incentive schemes as part of demonstrating their commitment and confidence in costs. They should provide analysis to support their position. As a default, limiting the combined incentive payment to 1 per cent of the revenue requirement may be appropriate. We will also consider whether limits should apply for an individual outcome within the ODI scheme, on a case-by-case basis.

4.5.3 Adjusting revenues at the end of the period accounts for volatility

We propose all payments, or return of revenue, be paid out at the end of each regulatory period, rather than at the end of each year within the regulatory period. This approach is administratively simple, manages year-to-year volatility and addresses stakeholder concerns about cautiously introducing the schemes.

While it is important to track performance annually, administrating the payments annually would create additional complexity for both the business and IPART to administer, with no clear benefit. It would require additional complexity in IPART determinations and models, and an involved QA process to confirm the benefit of loss each year.

At an annual frequency, we expect there to be a fair degree of volatility in the rewards and benefits:

- The schemes encourage the businesses to think longer-term, and so we might expect substantial variations in costs in the short-term.
- Applying the schemes annually would effectively recover any gain or loss in perpetuity within a single year.
- We expect a degree of year-to-year fluctuations in some customer outcomes, which are largely unrelated to the actions of the business. Paying out the customer schemes at the end of the period manages year-to-year fluctuations in performance, while rewarding an underlying trend towards higher performance.

4.5.4 Incentive schemes account for revenue uncertainty

Stakeholders have questioned how uncertain and unforeseen costs that arise during a determination would be dealt with under IPART's proposed incentive schemes.

Incentive schemes do not determine which costs are being borne by customers (or when). Instead, they change how any difference between actual and allowed costs is shared between the business and its customers.

As discussed in Chapter 6, we want our framework to provide all businesses with sufficient tools to manage the risk of uncertain and unforeseen costs, regardless of whether a financial incentive scheme applies. If a cost pass-through, or another method for accommodating an uncertain or unforeseen cost is triggered, we propose adjusting the financial incentive schemes so that they apply to the 'revised' expenditure profile. This approach maintains the underlying incentives of the schemes, ensuring that they continue to promote customer value, while adjusting revenues for cost uncertainty.

4.5.5 Applying the schemes will be mandatory

Under our proposed model, the business will propose incentive mechanisms for financial and service performance that will be assessed and approved by IPART. IPART could choose to modify the proposed scheme to promote customer outcomes.

Unlike our current framework, once agreed to, schemes will be mandatory. That is, we will calculate the gain or loss under the scheme over the course of the regulatory period. This approach contrasts with our current ECM scheme, where it is up to the businesses whether or not to apply for an efficiency payment under the scheme at the end of the period (or, at least in theory, whether to apply for a penalty in the case of an expenditure over-run).

This distinction is important to promote customers' long-term interests. A business will need to fully understand the schemes before they commit to them, and to consider whether applying the schemes would promote the long-term interests of their customers, given their understanding of long-term costs, customer outcomes and the services they provide.

4.6 We will consider requests for innovation funding that improve customer outcomes

A business's pricing proposal should promote the long-term interests of customers. And the 3Cs framework will assess revenue proposals through that lens, including any expenditure for innovative activities recovered through standard operating and capital expenditure allowances.

At the same time, the novelty of innovative ideas and the potentially long lead time before benefits are realised reduces the certainty of success. The risk of failure is higher than for known technologies and methods. Despite these risks, IPART agrees that there are significant untapped opportunities for innovation within water businesses that could significantly benefit customers in the long-term. It follows that IPART will look favourably towards businesses that are investigating innovations, as part of well thought-out strategic plans.

In our Third Discussion paper, we said there may be scope to offer innovation funding as an option for businesses that are rated highly, where they demonstrate sufficient maturity in business operations to be able to use innovation funds to promote the long-term interests of customers.

In response, water businesses supported the introduction of dedicated innovation funding, for example, to fund research and development, but generally accepted a model where IPART reviewed proposals on a case-by-case basis.

We will assess proposals for separate innovation funding mechanisms on a case by case basis. We are very happy to provide assistance where it is needed, but we consider it preferable for each business to retain responsibility for proposing and justifying how best to deliver innovation. Proposals for explicit innovation funding should promote customers, costs and credibility, by demonstrating:

- A well-defined problem linked to customer outcomes, which clearly articulates the limitations of existing funding mechanisms that require an innovation fund.
- The business has clear incentives to 'innovate efficiently' to achieve outcomes. For example, this could involve the shareholder co-funding the innovation with customers, and/or creating opportunities for private sector participation (see Box 5).

Box 4 Promoting innovation through challenge questions

In recent years, governments and businesses have promoted innovation through innovation challenges. These incentivise businesses, individuals, and researchers to address the key questions or challenges facing our communities for which there is not a currently known solution. They typically pose a challenge question or problem and invite prospective innovators to propose solutions to the problem.

A subgroup of the most promising solutions is funded to undertake a feasibility study for the proposed solution, with the best one or two being selected to progress to a prototyping phase. This approach allows businesses and governments to leverage its funding to harness innovation from outside of their organisation.

An example is available here.

We note that the 3Cs framework supports innovation in many ways, which include:

- To be successful under the framework, businesses will promote a customer focus. This should unlock better ways of delivering services for customers, including opportunities for providing differentiated services to customers where the benefits outweigh the costs.
- Our assessment process provides financial rewards for Advanced and Leading proposals. This financial payment provides a buffer to support innovation and better ways of delivering services.
- Financial incentive schemes promote longer term trade-offs to deliver services more efficiently and cost-effectively.
- Our revenue sharing framework manages uncertain and unforeseen costs, while encouraging efficient decision-making.
- Conducting ex post expenditure reviews by exception, which addresses stranding risks.
- Setting 5-year regulatory periods as a default and encouraging early engagement. This supports forward planning and provides confidence to the businesses about IPART's standard processes.

5 Updating common elements of price reviews

While some elements of the proposed 3Cs framework are tailored to each business based on our assessment of its proposal, other elements will be consistent across reviews. In this chapter we discuss our proposed changes to elements of the regulatory framework that apply to all businesses. Specifically:

- setting 5-year regulatory periods, as a default
- changes to our expenditure review process
- simplifying our building block method.

How stakeholders have shaped our thinking

Throughout this review, stakeholders have argued that 4-year determinations promote short-term planning, and that expenditure reviews have become increasingly complex and less effective over time. We have carefully considered this feedback and propose: moving to 5-year determination periods; implementing a range of changes to streamline and refocus our expenditure review process; and introducing a number of modelling simplifications to the building block models.

5.1 We will generally set 5-year regulatory periods

Draft decision

11. IPART will set 5-year regulatory periods, and conduct price reviews over nine months, unless another timeframe is agreed in advance.

Through this review, businesses have told us that a 4-year determination impedes their ability to conduct good long-term planning. It can take a business two years to prepare a pricing proposal, and then another year to go through the price setting process, so businesses have limited capacity to conduct their long-term strategic planning.

Further, the current principles-based approach can mean we can end up in a circular argument where we set shorter periods because we do not have confidence in businesses' cost estimates. Short periods then make it difficult for businesses to plan for the long-term, making their cost estimates even more short-term. This outcome means we set a short period next time.

Therefore, we have decided to shift from a principles-based approach to setting determination length (which usually resulted in a 4-year price period) to a 5-year price determination as a default. We have decided not to pursue the 3-3-6 model outlined in our Third Discussion Paper, following feedback from the businesses that this would result in significant additional burden with insufficient benefit.

We have also decided to shorten the length of our pricing review process from 12 months to nine months. In general, each business will submit their proposals in September, and we will publish a Determination in June the following year. In that time, we will hold a Public Hearing and publish an Issues Paper, Draft and Final reports (see Figure 1 below).

Figure 1 Standard timeline for a pricing review

Business submits pricing proposal	**Issues Paper**	**Public hearing**	**Draft report and determination**	**Final report and determination**	**Our decisions apply**
September	October	November	March	May/June	1 July

Business submits pricing proposal	The pricing review begins when a pricing proposal is received from the business, which includes a self-assessment against the 3Cs framework, and its proposed customer outcomes, expenditures and prices.
Issues paper	The Issues Paper highlights and seeks feedback on our focus areas for our review of the business's proposal, and the areas where we need more information to make an assessment and set a determination. It also seeks submissions from all interested stakeholders on the proposal and our proposed approach.
Public hearing	The business presents on the key aspects of its proposal, and IPART presents its initial analysis and findings. The hearing is an opportunity for all interested stakeholders and IPART to challenge the business on aspects of its proposal, and for the business to address how its proposal would promote the long-term interests of customers.
Draft Report and determination	IPART's Draft Report explains the decisions we intend to take, as well as the draft 'grade' we are assigning the business's proposal and seeks stakeholder comment on these decisions. It is accompanied by a Draft Determination which is a draft of the legal instrument to implement our decisions.
Final Report and determination	Our Final Report explains the decisions we have taken, while the Final Determination is the legal instrument to implement our decisions.
Our decisions apply	The revenue allowance, financial incentive mechanisms, and pricing methodology/prices apply for the following 5 years.

Note: reviews may run from August to May, depending on the circumstances of each review.

We have been able to shorten the length of the review because of new elements, including early engagement, which should help IPART prepare for the pricing review, and other improvements to streamline the regulatory effort involved. This should help to spread regulatory effort over the pricing cycle, rather than having one year in every four where regulatory teams are overstretched.

In addition, commencing pricing reviews in September has the advantage that we will have financial results for the previous year when we begin the review. This will allow IPART to review the businesses' proposed operating and capital expenditure more efficiently, which avoids each business having to provide IPART with two sets of forecasts throughout the review. If we start pricing reviews in July, we would still have to wait until September for updated financial information for the 'base' year.

5.2 We will update our approach to expenditure reviews

Draft decisions

12. IPART will update how we assess proposed operating expenditure by:
    - implementing a base-step-trend approach
    - streamlining information returns to support greater use of benchmarking

13. IPART will update how we assess proposed capital expenditure review by:
    - working with the water businesses to develop predictive models of longer-term capital expenditure needs
    - conducting reviews of historical capital expenditure by exception.

14. IPART will require expenditure review consultants (where used) to recommend a range of efficient expenditure.

The 3Cs regulatory framework is built around each business self-assessing the quality of its proposal, with IPART determining the extent to which it agrees with this self-assessment. We are providing clearer guidance about the information we need to make decisions, which should support a more streamlined review process.

We are also proposing a number of small, but important, changes to our expenditure review process. These changes are:

- Implementing a base-step-trend approach to review proposed operating expenditure.
- Streamlining information returns to support greater use of benchmarking.
- Working with the businesses to develop predictive models of longer-term capital expenditure needs.
- Only reviewing historic capital expenditure by exception.
- Requiring expenditure review consultants to recommend a range of efficient expenditure.

These changes aim to promote a more efficient use of regulatory effort by:

- Better utilising information, and incentives, that allow businesses to demonstrate that their proposals and actions are efficient. This includes streamlining information returns, to support benchmarking and promote competition by comparison where possible.
- Outlining where providing more detailed information would reduce regulatory costs for the business
- Focusing our review process to the places where we are concerned that forecast costs may not be efficient.

They also create more certainty for the businesses. Removing automatic ex post reviews gives businesses confidence their spending (within the revenue allowance) will not be declared inefficient at a future date and adopting a consistent approach to operating expenditure creates a common starting point for expenditure reviews.

We will implement base-step-trend approach for operating expenditure

We will move to a base-step-trend approach for setting an operating expenditure allowance, as applied by the Australian Energy Regulator (AER) and the ESC. Forecast operating expenditure is built up from three components:

1. **Base** – the efficient recurring expenditure required each year, typically based on the most recently available 'full year' of actual expenditure.
2. **Step** – changes that are typically the result of new requirements or new ways of doing things, so past expenditure or trends cannot predict this change in expenditure.
3. **Trend** – the predictable (and efficient) change in recurring expenditure over time due to input price changes, population/demand growth and improvements in productivity.

The base-step-trend approach allows businesses to present their expenditure more clearly for IPART and customers, so we can see how costs are changing, and what is driving the change. Over time, this will help verify base costs, and support more focused reviews.

Importantly, as we develop increased confidence over time about the efficiency of base costs, a base-step-trend approach would not impose catch-up efficiencies to historic cost bases. This contrasts to our current approach.

We propose streamlining information returns to support greater use of benchmarking

We will adopt a standard approach to reporting expenditure to IPART. At present, each business provides IPART with different breakdowns of their operating and capital expenditure. We have allowed this because it aligns with each business's internal data collection, and because we made limited comparisons across businesses (in NSW or elsewhere).

We consider that there is untapped value in comparing businesses. It will allow us to quickly identify where a business's costs may be high (and where we should focus any expenditure review) and if there are differences in reported reasons for step changes or trends between businesses.

We propose adopting the categories applied by the ESC in Victoria. This gives us greater ability to compare costs using published pricing proposals from Victoria. We will set out further details on the categories when conducting workshops with businesses to develop the handbook.

This is the first step towards greater use of benchmarking in our regulation. We anticipate that Advanced and Leading proposals will support their costs with their own benchmarking information, to show where and how they are achieving lower costs and explain why their costs are higher for other components.

As we receive more standardised data and more benchmarking information from businesses, we will make greater use of benchmarking. Like base-step-trend, benchmarking creates reputational and procedural incentives. High performing businesses can show their customers and shareholders how well they are performing, and IPART will be able to more easily verify that a business beating its benchmarks is delivering customer value efficiently. However, we do acknowledge that with a limited number of businesses it will be difficult for IPART to entirely replace expenditure reviews with benchmarking in the short- or even medium-term.

We are aiming to develop predictive models of longer-term capital expenditure needs

By its nature, capital expenditure is more difficult to review. Capital expenditure can be lumpy over time due to a combination of asset ages, growth and the location of the capital expenditure (e.g. whether it serves brownfield growth or greenfield growth). This presents challenges to streamlining our regulatory processes.

As we proposed in our Third Discussion Paper, we aim to pursue greater use of benchmarking and predictive forecasting for capital expenditure, as a tool to support our decisions in a pricing review. We note that it is difficult to apply a single method for all types of capital expenditure, but we consider that there should be some types of capital renewals that are more predictable and could be modelled.

We consider that we can improve our processes through:

- Developing predictive modelling of replacement capital expenditure for business as usual expenditure.
- Creating a database of major asset capital expenditure to identify the historic costs of different types of assets with differing capacities.
- Developing predictive modelling of serving greenfield growth (to the extent it is included in price review revenue).

We consider that working with businesses to develop this information will help both parties to identify the focus of future capital expenditure reviews. This process could provide broader spill-over benefits in allowing each business to showcase how it is using more and better data to improve the quality of its business plans. We also think there could be significant benefits from businesses sharing this information across the sector.

We will only review historic capital expenditure by exception

Actual capital expenditure can vary greatly from forecasts for several reasons. When we set the RAB, we can also review the business's actual capital expenditure over the previous period and amend the RAB to ensure only efficient expenditure is recovered from future prices. This is known as an ex post review of capital expenditure.

We have conducted ex post capital expenditure reviews in our current approach, but they will not be a prominent feature in the 3Cs framework. This is because IPART has always stated that our expenditure allowance gives the businesses an envelope of expenditure to prioritise within, and we acknowledge that the threat of ex post capital expenditure review can contradict this statement, in practice. Further, we rarely make significant cuts in ex post capital expenditure reviews, since it is difficult to prove that costs were inefficient in retrospect.

We propose, to conduct ex post capital expenditure reviews by exception in the future. For example, we may conduct a review where a business:

- Has a very large capital project (e.g. large contingent projects).
- Has exceeded its capital expenditure allowance (and requests to include more than its allowance in the RAB).
- Has deferred a project and it is part of a capital expenditure incentive.
- Is underperforming its operating licence conditions or other regulatory requirements or significantly failing to reach customer outcomes.

Consultants will provide a range of efficient expenditure

In future, we will request expenditure consultants provide a range of efficient expenditure, rather than an exact figure as they have done under the current framework. The consultant will also provide clear advice to IPART on the factors that would inform how it should reach a decision within that range.

The factors that will influence an IPART decision over a business's efficient expenditure allowance (within the range proposed by the consultant) could include:

- An assessment of the maturity of the business, which will tie to the grading we assign to the proposal.
- Any areas where more expenditure could be justified (or perhaps is needed) but the business case is poor. For example, when the performance commitment to customers is too conservative for the expenditure proposed.
- When the level of efficient costs is influenced by the response of other regulators or stakeholders (such as the EPA).

- When the information reviewed by the consultant is incomplete. In this case, any commitments by the business to address these shortcomings could inform the final decision.
- When there are concerns about the proposed expenditure being delivered in the time period.
- Where there are conflicting views about an acceptable sharing of risk between the business and its customers.
- Other specific limitations – incumbent on the consultant to justify – that would lead to uncertainty.

The advantages of this change are:

- It acknowledges that businesses' proposals are multi-dimensional – a balance of cost, performance, and risk, and creates an avenue to address uncertainty in project scope and costs.
- It could allow for more constructive dialogue between the business and IPART during the expenditure review process.
- It discourages the business from trying to anticipate the recommendations of cost consultants, and thereby reinforces other elements of the 3Cs model which encourage each business to submit its efficient expenditure needs based on customer preferences.

5.3 We will apply the building block method with modelling improvements

Draft decisions

15. IPART will update our regulatory approach around the 3Cs framework:
    - The criteria IPART will apply to test the prudency and efficiency of proposed expenditure will be included in the 3Cs framework and guiding principles, rather than in separate guidelines.
    - As water businesses will promote the service improvements that their customers want and value by proposing customer outcomes, IPART will not apply a separate discretionary expenditure framework.
    - Our proposed customer choice pricing model promotes differentiated service offerings and broadens the scope for unregulated pricing agreements.

16. IPART will simplify the building block models without affecting the quality of outcomes, as outlined in Appendix A of the draft Technical Paper.

The 3Cs framework forms the basis of our regulation, with the underlying principles driving the way we regulate. It better articulates the factors that we consider contribute to efficiency. The new regulatory approach is broader than the current regime, and the more holistic review means that we can retire some elements of our existing approach: the efficiency test, discretionary expenditure framework and unregulated price agreements.

Appendix A outlines a number of modelling simplifications that significantly reduce the complexity of our modelling, with little or no impact on the quality of outcomes.

Updating elements of our current approach with the 3Cs framework

Introducing the 3Cs framework means there are elements of our existing framework that we can retire. The main features of the old framework that are not in the 3Cs are:

- **The efficiency test** – we will instead establish efficiency by assessing proposals against the 3Cs framework. This is not to say that prudency and efficiency are less important in the new framework, rather the way that we assess efficiency has changed from an explicit test to being embedded in all elements of a business's proposal.
- **The discretionary expenditure framework** – this is superseded by the addition of customer outcomes. We consider that our previous approach encouraged businesses to spend a disproportionate amount of effort on minor expenditure (with minimal bill impacts) when customers wanted the business to perform above minimum standards. Under the 3Cs, businesses propose customer outcomes (including services above and beyond licence standards) based on customer preferences and have incentives to deliver these. This should simplify the process and allow businesses to better respond to customer preferences.
- **Unregulated price agreements** – these are an example of customer choice pricing and therefore no longer needed as a standalone element in the framework. In recent determinations, we have provided businesses with flexibility to enter agreements with large non-residential customers that deviate from prices set in the determination and consider that customer choice pricing is an evolution of this idea. That is, encouraging businesses to offer different services to sets of customers with different needs/preferences, where the benefits exceed the costs.

Simplifying our building block models

The cost building block models have become increasingly complex over time. We propose to simplify our modelling without compromising its overall integrity. By simplifying the modelling, we move further away from a cost-of-service approach to regulation to one more incentive-based, which should deliver better value for customers.

The key changes we propose are (full details are in Appendix A):

- Having fewer RAB categories and a different approach to asset lives.
- Removing the modelling requirement for discretionary expenditure
- Simplifying our asset disposals policy
- Simplifying our working capital policy
- Adopting a 50:50 sharing ratio for all non-regulatory income
- Using a pre-tax WACC for businesses that do not do tax accounting
- Simplifying our WAMC modelling.

6 Addressing the changing revenue needs of water businesses

The 3Cs framework seeks to promote the long-term interest of customers, identifying and rewarding businesses that sustain better customer outcomes and cost efficiencies. But we recognise that, within a regulatory period, there are inherent uncertainties that may require additional costs (or avoided costs) to be shared between customers and the business if they arise. We also see benefit in providing guiding principles for businesses about how to manage revenues and costs between regulatory periods to promote intergenerational equity and efficiency.

In this chapter we highlight a 'revenue sharing framework' that sets out principles and guidance about how and when costs should be recovered from customers. We also outline key principles for inter-period revenue smoothing, in response to Sydney Water's submissions.

Our revenue sharing framework is designed to promote the long-term interests of customers by supporting long-term planning and addressing changing revenue needs, while maintaining an incentive for businesses to seek out efficiencies.

How stakeholders have shaped our thinking

Businesses have requested we amend our cost pass-through framework to allow for unforeseen cost events to be passed through to customers mid-determination and argued that our proposed incentive schemes make them more exposed to the risk of unforeseen costs.

At the same time PIAC has highlighted it is not in the best interest of customers to regularly pass through new costs, which may become a material and variable portion of the customer's bill. Instead, it considers the applicability of cost pass-throughs should be narrowed, and business be directed to other means of addressing risks.

We have thoroughly reviewed our cost pass-through framework. We are providing clearer guidance on the range of mechanisms available to all businesses, and how they should be applied to share risk where it promotes the long-term interest of customers.

6.1 Our 3Cs framework provides water businesses with several ways to manage their revenue risks

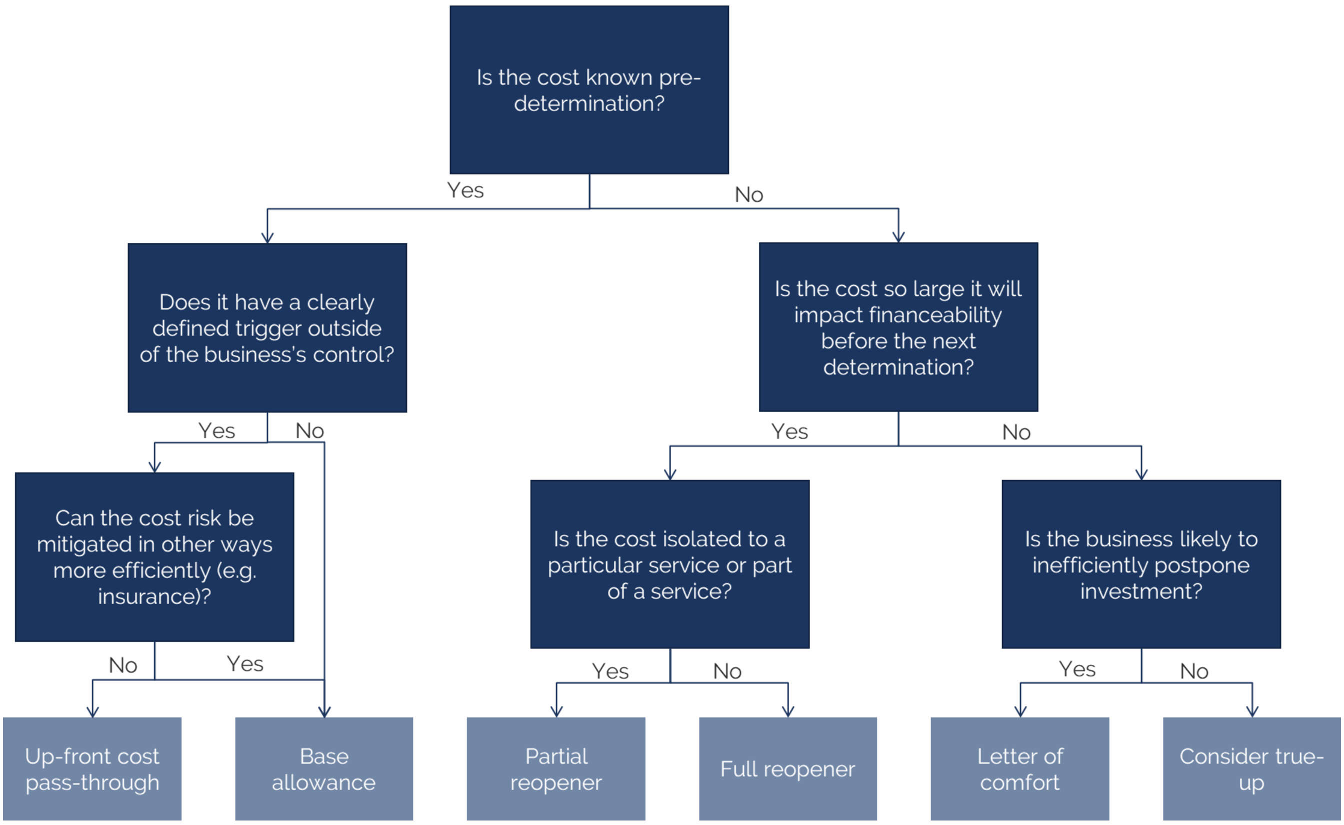
Draft decision

17. IPART will provide water businesses with mechanisms to manage changing revenue needs over the short and long-term, where these promote better customer outcomes. We will outline principles which we will consider when assessing proposals:
    - to account for uncertain and unforeseen costs within a pricing period with a cost pass-through, ex post-true up, letter of comfort, or a partial or a full re-opening of a pricing determination
    - to smooth revenues between pricing periods with accelerated depreciation, annuities or escrow accounts.

Water businesses have regularly asked IPART to provide more flexibility to recover uncertain and unforeseen costs from customers. In this review, businesses requested we review our cost pass-through guidance to allow pass throughs in a wider range of circumstances.

Figure 2 highlights that cost pass-throughs are just one of a suite of tools businesses can use to manage revenue uncertainty within a regulatory period. Our framework also includes true-ups, letters of comfort and partial or full replacements of a determination.

Figure 2 What tools are available to manage changing revenue needs?



6.1.1 Recovering costs through the price determination

Broadly speaking, costs can vary within a regulatory period if:

- An event, which has predictable costs but is uncertain, arises within the period
- Unforeseen costs unexpectedly arise during the determination period
- Costs are uncertain at the beginning of the period.

Below we outline our proposed principles to guide businesses in deciding whether and which mechanism promotes the best long-term outcome for customers.

Base cost allowance

Most costs should be recovered from base costs and apportioned to the appropriate cost building blocks. We review the business's planned expenditure for efficiency and set prices to allow it to recover the revenue needed over the next regulatory period to deliver customer outcomes.

This approach promotes good customer outcomes, and is our preferred approach to recovering costs, because it:

- Encourages the business to propose and justify efficient expenditure. Proposals need to substantiate why the business expects to incur costs, and how it will manage and minimise costs, and if appropriate, have its plan be tested and accepted by customers.
- Seek and drive efficiencies (to the benefit of customers), allowing the business to retain a share of cost savings.

Cost pass-throughs

When there is a known, material cost that the business cannot control, we can include a cost pass-through (up front) in the determination. Should the cost be incurred, the business can automatically pass the costs through to customers within the regulatory period.

Cost pass-throughs generally go against our principle of providing an envelope of expenditure for businesses. The aim of setting a cost allowance up front is to encourage businesses to reprioritise their spending through the period as circumstances change, but allowing a pass-through straight to customers for a specific project weakens the incentive for this reprioritisation, as well as reducing the incentive to find efficiencies.

Our proposed guidelines (Figure 3 below) address this issue by setting the pass-through on forecast, rather than actual, costs. This preserves the incentive for the business to seek efficiencies when costs are incurred. Our guidance also asks the business what it has done to consider mitigating the costs in other ways.

Figure 3 Cost pass-through guidelines

In proposing a cost pass-through, the business should demonstrate the following principles apply:

01	There is a trigger event (to activate the cost pass-through), which can be clearly defined and identified in the price determination.
02	The resulting efficient forecast cost associated with the trigger event can be fully assessed, including whether there are other factors that fully or partially offset the direct cost of the event.
03	The resulting cost is assessed to exceed a materiality threshold. It must also represent a material risk for customers (in the absence of a pass-through).
04	The regulated business demonstrates that a cost pass-through is the most efficient and equitable way to deal with the event.
05	If the mechanism is triggered, there is a symmetric treatment of any over- or under-recovery of actual costs, relative to the efficient forecast cost included in the cost pass-through.
06	The cost pass-through will result in customer prices that better reflect the efficient cost of service.

6.1.2 Adjustments for unforeseen costs that arise during the determination period

No matter how well a business forecasts efficient costs, the operating environment will change throughout the determination. In this case, changes in costs can be managed through a variety of means.

Manage within revenue allowance

The costs for all businesses will vary over time, and cost increases can often be absorbed by a business, particularly in the short run (in the same way that cost reductions are absorbed until the next price reset). Encouraging each business to manage costs that arise within a regulatory period, before asking customers to pay higher costs, will support each business in delivering customer outcomes in the most cost-effective way.

In deciding whether it can manage the cost increase until the next price reset, a business should address:

- What cost reductions has it made (or could make), and what additional revenues has it generated that offset the costs?
- Can it re-prioritise other projects without sacrificing customer outcomes?
- Will incurring the costs today deliver better long-term customer outcomes?
- Can it absorb the costs while maintaining long-term profitability and financeability?

True ups

If costs change materially during a determination period, businesses can apply for a true up of costs at the next price review. The costs that the business will incur can then recovered from customers in the following period.

Such ‘ex post’ true ups address a situation where costs arise during the regulatory period and:

- The costs do not have an immediate impact on the business’s financeability, but they cannot be borne by the business longer-term.
- The costs are assessable (to ensure that costs remain efficient).
- It is appropriate to pass additional costs to customers but, at the same time, waiting to recover the costs does not materially impact the cost reflectivity of prices.

As with cost pass-throughs, our preference is that true-ups are based on forecast efficient costs established before actual costs are incurred.

Targeted reviews and letters of comfort

In some cases, a business may be uncomfortable proceeding with new projects/spending while waiting for an IPART review. It may be concerned that IPART will determine the spending was inefficient, and not allow it to be recovered from customers in the next period. This lack of assurance could result in businesses inefficiently postponing investment.

In situations like this, we can:

- Review the need for investment
- Conduct a high-level review of the proposed expenditure, and
- Provide either a letter of comfort (without binding a future Tribunal) or offer advice on the way the spending is likely to be perceived.

We consider it unlikely that ‘letters of comfort’ will be a key feature of our regime. Given our new framework is encouraging business’s decisions to be guided by customers, the business should have comfort from its customers (rather than the regulator) that they support the new spending. At the same time, many of our proposed changes support a shift where the revenue allowance we set is an envelope of expenditure to promote customer outcomes, rather than an allowance for specific projects.

Replacement of the price determination

In cases where the business's financeability is immediately affected, and it cannot wait for a true-up of efficient costs, IPART can agree to partially or completely replace a current determination.

Proposing to re-open a determination has always been an option for businesses, but one that is rarely used, as it is a resource intensive process.

Businesses can also request a partial replacement of the determination if costs are restricted to specific elements of their services. We consider this effectively addresses the business's key request to have a mechanism to pass-through unforeseen costs that are outside their control, following an in-period IPART review of efficiency.

6.2 We will consider other ways to manage the changing revenue needs of water businesses between price reviews

Sydney Water requested that IPART's regulatory framework create greater opportunities to manage revenue fluctuations between periods. Sydney Water provided a supplementary submission to our Second Discussion Paper (which we have published on our website) which suggested that IPART explore three tools that businesses can use to manage inter-period changes to revenue:

1. Accelerated depreciation
2. Annuities
3. Escrow accounts.

In this section we outline the specific circumstances where we consider that these three tools – as well as modest changes to asset lives – appropriately reflect the outcomes of competitive markets.

In summary, we propose providing more flexibility for each business to propose and justify a depreciation rate, to ensure that the costs recovered from current customers are cost-reflective and consistent with their usage of assets. Establishing, and periodically reviewing depreciation rates, should be the first tool to promote intergenerational equity.

We can also see that, occasionally, setting revenues within the range of reasonable depreciation rates, may be insufficient to promote customer outcomes. And that is why we consider providing broad guidance on the situations where it may be appropriate to explore different cost recovery options strikes the right balance.

- **Accelerated depreciation** – where there is an asset stranding risk

  In a regulatory context, accelerated depreciation means depreciating an asset faster than its useful life. This means that current customers are paying for more of the asset than they use, because the business expects there will not be future customers.

  We will consider accelerated depreciation where there is a high risk of asset stranding. Asset stranding occurs when there is no use for an asset while it still works. In a competitive market a firm will only invest where it expects to recover the economic cost of the assets. This may mean that they will recover the cost of an asset over a shorter time period if they expect they can recover costs before they lose demand.

- **Annuities** – where they more evenly spread costs for a single asset business

  An annuity is a financial product that produces a constant payment, spreading the costs evenly over regulatory periods. Unlike the building block approach, depreciation does not affect the returns of an annuity. This spreads the costs evenly across the asset's useful life. Relative to the building block model, annuities reduce costs to customers today and increase costs to future customers.

  We will consider proposals to use annuities for large investments, particularly where a business has a single asset or a dominant asset.

- **Escrow accounts** – in rare circumstances

  An escrow account involves over-recovering today's costs for use in the future. An escrow account works similarly to developer charges, where developers pay for the lifetime cost difference between the postage stamp price and the costs of servicing new development.

  Escrow accounts can be risky because if future costs don't materialise, current customers pay too much. On the other hand, if future costs do materialise, the business may need to finance and deliver large investments while under-recovering its costs. In other words, it needs to be credible today that the business will effectively ringfence the revenues over multiple regulatory periods and retain the revenue to finance future costs.

  We may consider escrows in situations where:

  - Actions today can be closely linked to future costs (i.e. polluter pays principle)
  - Businesses can confidently calculate the future cost to reduce the risk of under- or over-recovery.

- **Asset life changes** – modest changes when in customers' interests

  The RAB is unlikely to match the actual assets owned by a business because of the way we value asset bases, contributed assets and apply depreciation.

  The RAB simply reflects all costs that have not been recovered from historical or current customers, taxpayers or developers. We consider, for most regulated water businesses, there is an acceptable range of asset lives that could apply to the RAB. Businesses may propose and justify changes to asset lives within this range (as outlined in 'Principle 10: equitable and efficient cost recovery' of our 3Cs principles).

  We will allow changes to asset lives (within a range) to smooth price changes between price periods. We expect to allow longer asset lives to reduce the impact of temporary increases in prices and shorter asset lives to reduce the impact of temporary decreases, where it promotes efficient and equitable outcomes for current and future customers.

7 Monitoring the performance of water businesses

Our framework is designed to support businesses that deliver ongoing improvements in performance to create long-term value for customers. We do this through a pricing review process where businesses make commitments to their customers, and through the operating licence. We are implementing new monitoring tools to complement this process and keep businesses accountable for their performance. Specifically, we are:

- Requiring businesses to report to customers on their progress against the customer outcomes in their pricing proposal annually.
- Producing and maintaining an IPART dashboard that collates the information provided by each business, to provide stakeholders with comparable information across businesses.
- Establishing a Regulators Advisory Panel (RAP).
- Committing to review our framework after it has been implemented, and to continually refine and improve our regulatory approach.

How stakeholders have shaped our thinking

One of the goals of this review was to 'lift the performance' of the water sector. We consider that our proposals to increase the prominence of annual performance against customer outcomes will support this goal. Stakeholders also told us early on that an issue they face is different regulatory bodies not coordinating and creating inefficiencies. In response, we propose establishing the RAP, which is supported by the DPE and the EPA.

7.1 Water businesses will regularly report on their performance against customer outcomes

Draft decisions

18. Each water business will publish its performance against customer outcomes annually and communicate this information to customers.

19. IPART will publish and maintain an online performance dashboard on water businesses' performance against customer outcome commitments.

We are asking each business to publish annual updates on their progress against the customer outcomes they include in proposals. Each business should propose how it will communicate annual progress with customers, and we will agree on the form this will take as part of the pricing review.

The aim of this annual reporting is to maximise accessibility and visibility for customers. But we ask each business to think about how best to do this. For example, putting the outcomes 'on the business's website' in a place that is difficult for customers to locate would not be customer centric.

Monitoring and communicating on progress against customer outcomes is a criterion for each business to meet as part of our 'Continuous improvement' principle.

In addition, we will produce a user-friendly online performance dashboard that tracks the businesses' progress against their outcome commitments. This approach ensures there is greater visibility and accountability about progress and lends itself to comparisons across like businesses.

The online dashboard will be easily accessible to all interested stakeholders. The intent is that it will contain current and past information for all price-regulated businesses on the grades that each business received for current and past pricing proposals, outcome commitment targets and progress against achieving those targets, and trends for operating expenditure and capital expenditure.

7.2 We will establish a Regulators Advisory Panel to consider regulation and compliance issues

Draft decision

20. IPART will establish a Regulators Advisory Panel to promote better collaboration between regulators of NSW water businesses.

In our discussion papers, and in workshops, we proposed establishing a Regulators Advisory Panel (RAP) to promote better collaboration between water regulators for the benefit of customers. We have received strong support from businesses and other regulators on this proposal. Our draft decision is to establish the RAP, and that the group:

- will meet at least twice a year
- is not a decision-making body, but a forum for regulators to coordinate efforts and maximise value for customers
- will include, as regular members, the EPA, NSW Health, and IPART
- include scope for other regulators, the DPE and customer advocacy groups to participate as guest members of the panel[f]
- will produce high level minutes from each discussion that are published on the IPART website.

[f] We note that PIAC suggested customer advocacy groups be included in the panel, however our draft decision is to invite these groups along to meetings where they will generate the most customer value rather than by default. This is because we would expect businesses to have already thoroughly engaged with these groups before bringing an issue to the RAP.

We consider the RAP will formalise ongoing communication and collaboration between regulators and policy makers, and could bring about significant benefits. It could promote:

- **General informational benefits** – each member of the RAP will gain a clearer picture of the broader regulatory process and system, and the decisions being taken by other regulators. It promotes consistent and unbiased information being provided by the utility to all regulators.
- **Improve long-term planning** – policy makers and regulators have a shared social licence to ensure that water businesses deliver services that are affordable, respond to the challenges of climate change and promote positive environmental outcomes. However, there are trade-offs to be made to balance these objectives. The RAP could boost understanding of these tensions and promote the use of cost benefit analysis which incorporates non-financial benefits and costs, in making these trade-offs.
- **Support innovation in the sector** – the RAP could provide a forum to draw on the learnings of other members, as well as developments in other jurisdictions and regulated sectors.
- **Support IPART's decision-making process** – the RAP could provide useful insights in the lead-up and during our pricing review process. Businesses could test new and better ways of meeting regulatory requirements.

7.3 We will review and continually improve our framework

Draft decision

21. IPART will review and update the 3Cs framework every five years. This will include an independent review of the framework, after the first round of reviews under the new framework.

We recognise that our framework needs to continually improve and evolve, to reflect better ways of delivering on customers' changing preferences, and reflecting the lessons from IPART's and other regulators' frameworks.

We will review our framework for regulating the water sector every five years. We anticipate doing so after the completion of each round of pricing reviews under the new framework, with a transparent and consultative review process. We also expect to review our WACC method outside of the pricing review process.

These 'framework' reviews will look at how successfully IPART and the businesses have promoted customer outcomes under the framework, reviewing which elements of the framework have worked well and which ones haven't, and identifying and implementing improvements to the framework.

While we will consult with stakeholders on the focus areas for future 'framework' reviews, we expect to:

- share learnings and improve how customer outcomes are promoted under the framework
- review and update our 3Cs guiding principles
- over time, identify improvements to the design of financial (and other) incentives in the framework, once the schemes have a had chance to operate
- over time, provide more confidence and clarity about what elements of the review process we streamline as businesses demonstrate they are delivering customer value.

For example, we could confirm whether Advanced and Leading proposals have an option to avoid a full regulatory review if they have achieved their proposed customer outcomes and cost efficiencies over previous period under the 3Cs framework, and expect to achieve at least a minimum level of cost efficiency into the future.

We will also commission an independent review of our new framework after first round of reviews.

Appendices

A Modelling simplifications

The cost building block models we use to set prices have become increasingly complex over time. We propose a number of modelling simplifications that would not compromise the overall integrity of the prices we set (or the incentives we provide to promote better outcomes).

A.1 Fewer RAB categories and a different approach to asset lives.

We propose reducing the number of asset (RAB) categories per service and providing more flexibility to water businesses to propose appropriate asset lives.

What is our current approach?

Many of the businesses we regulate have a large number of asset categories per service. For example, Sydney Water has 20 asset categories for potable water (which includes sub-categories for its three finance leases). Including provisions for RABs for discretionary expenditure, Sydney Water in total has 60 asset categories and Hunter Water has 41 categories. WaterNSW (greater Sydney) has 13 categories and SDP has 11.

What are the benefits of our current approach?

The main benefit, and indeed the purpose of multiple asset categories for each service, is to estimate depreciation with some degree of accuracy. Grouping assets with similar asset lives provides the additional benefit that, once established, asset lives tend to become – at one level – fairly uncontentious during a review because we (and the businesses) can calculate remaining lives at the end of a determination period with some degree of accuracy.[g]

What are the problems with our current approach?

While our current approach has advantages, it also means

- Large, complex models and information requests.
- Multiple sets of allocations - All capital expenditure, RAB adjustments, cash capital contributions and asset disposals need to be separated by asset category. For example, we assess capital expenditure by project and with reference to the driver. But then we, and/or the businesses do another set of allocations to put the capital expenditure into asset categories.

[g] The cost building block model on our website shows how we calculate remaining asset lives

- The potential for spurious accuracy - Calculating remaining lives in asset categories inevitably involves a degree of inaccuracy. The inaccuracy may be compounded as asset lives are carried forward from one review to the next.

What is our proposed approach?

We propose only two categories per service, one for all depreciating assets and the other for non-depreciating assets.

We will no longer calculate remaining asset lives. Instead, for depreciating assets the business will propose:

- The remaining life of existing assets based on evidence of economic lives, for example from its asset register or its preferred breakdown of assets.
- The expected life of capital expenditure (net of cash capital contributions) for each year. The weighted average asset lives will likely vary from year to year depending on the mix of items in the capital expenditure program.

The business' proposed asset lives will then be analysed by IPART at each review.

We consider that this approach could lead to depreciation rates that reflect the actual 'consumption' of assets more accurately than under our current approach. For example, re-setting (rather than calculating) the remaining lives of existing assets at each review means the business can propose asset lives that are weighted by depreciation rather than asset values (see Box 5).

Box 5 Average asset lives and regulatory depreciation

The business has a list of the assets that it uses to provide a regulated service, for example a fixed asset register. Using this list and the value and asset life data for each individual asset, there are two possible ways of deriving a weighted average asset life, namely:

1. Weight by depreciation - a weighted average asset life based on the relative depreciation of each of the individual assets.

2. Weight by value - a weighted average asset life based on the relative values (the recorded depreciated or gross replacement costs) of each of the individual assets.

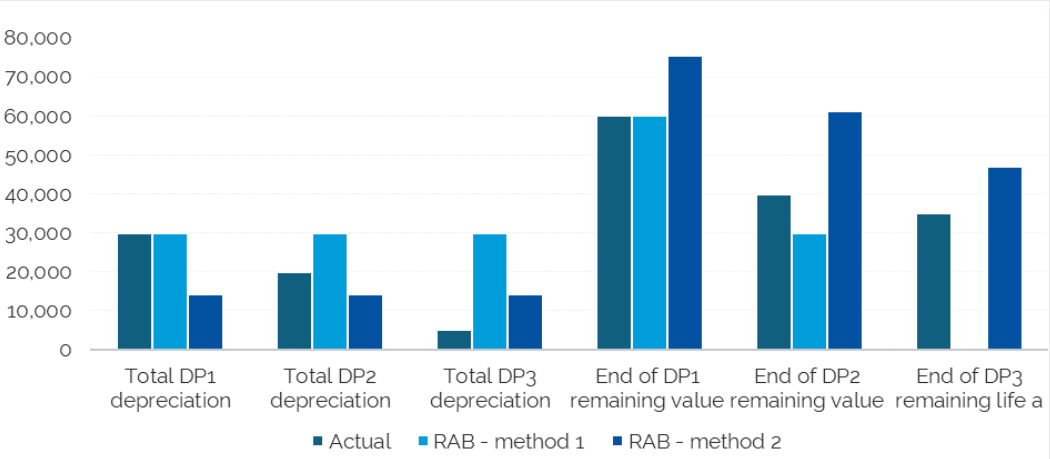
Method 1 produces the most accurate reflection of aggregate depreciation **in the short term**. But it will overstate the rate at which a group of assets with different asset lives depreciates if it is not regularly reset. This will arise due to short-lived (and therefore relatively fast depreciating) assets expiring, and longer lived (or slow depreciating) assets remaining. If the weighted life of the remaining bundle of assets is not regularly re-set with reference to the actual lives of the underlying assets the more slowly depreciating assets depreciate more quickly than they should.

Box 5 Average asset lives and regulatory depreciation

The following simple example illustrates the issue. Assume a business has two assets, respectively worth $50,000 and $40,000. Asset 1 has a life of 50 years and Asset 2 has a life of eight years. As shown in the table below, method 1 gives an average life of 15 years, and method 2 gives and average life of 31 years.

Asset	Opening Value ($)	Asset Life (years)	Annual depreciation ($)	Method 1 average asset life (years)	Method 2 average asset life (years)
	a	b	c = a/b	d = a/c	e = (a1xb1 + a2xb2)/(a1+b1)
Asset 1	50,000	50	1,000	50	na
Asset 2	40,000	8	5,000	8	na
Total/average	90,000	na	6,000	15[a]	31[b]

The figure below shows that method 1 accurately calculates RAB depreciation for the first 5-year determination period (DP1). However, without being reset the method over-estimates depreciation for DP2 and DP3. On the other hand, method 2 under-estimates depreciation for DP1 and DP2 and over-estimates it for DP3 and beyond. To date we have used method 2 to set initial asset lives because when we calculate (rather than re-set) the remaining asset life at the end of each DP, it provides a more reasonable depreciation profile over the (actual) life of the asset base.



A.2 Remove modelling requirement for discretionary expenditure

Discretionary expenditure is incurred when a business invests in projects that provide services or achieve outcomes beyond the standards/obligations in the business's operating licence or other regulatory requirements.

What are the problems with our current approach?

Our current approach is unwieldy and requires onerous modelling i.e. a separate RAB, NRR and price for each project. In effect, there is a large amount of detailed modelling for small amounts of revenue and costs. For example, in the 2020 Hunter Water and Sydney Water reviews, each discretionary project resulted in a residential customer charge of between $0.70 to $1.45 pa. We do not need complex modelling to confirm whether discretionary project expenditure and outcomes have been achieved.

What is our proposed approach?

Our 3Cs approach better addresses discretionary expenditure. The framework is designed to provide incentives for the business to propose services/outcomes that customers want at prices they are willing to pay, and control costs in the long-term interest of customers. Under the 3Cs framework, there is no longer a need for separate RABs, NRRs and prices for discretionary projects.

A.3 Simplify asset disposals policy

An asset disposals policy addresses the risk that customers are worse off if the business:

- has not disposed unneeded assets, or
- has disposed assets for short-term financial gain at the expense of service quality and/or higher future costs.

The value of asset disposals we deduct from the RAB is referred to as the 'customer share' of the asset sale value. Typically, asset disposals account for around 0.1 per cent of the RAB. Asset disposals as a proportion of RAB peaked at 0.2 per cent for Sydney Water (at height of its land sales) and 1 per cent for Hunter Water (when it sold its head-office).

What are the problems with our current approach?

Our current (2018) asset disposals policy is complex, not always well understood, and potentially difficult to implement. It was developed in response to the Hunter Water head-office sale, and Sydney Water's and Hunter Water's land sales program.

Our current policy distinguishes between significant and non-significant assets. A significant asset is an asset/class of assets with a value more than 0.5 per cent of the RAB, or one that would attract capital gains tax (CGT). There are three types of disposals with different rules under each.

- Significant pre-line in the sand (LIS) asset: the customer's share of the sales value (net of efficient asset selling costs and rehabilitation costs) to be deducted from the RAB equals the ratio of RAB to the depreciated replacement cost (DRC) at the time the RAB was established. This is around 40 per cent for most businesses. In practice, this rule applies to the sale of land purchased before the RAB was established.

- Significant post-LIS asset: establish a regulatory value of the asset by tracking actual capital expenditures and adjusting for depreciation and indexation. In practice, we have applied this approach only to the sale of Hunter Water's head-office and the sale of a small parcel of Sydney Water's land.
- Non-significant asset: allocate customers 100 per cent of the sale value (net of efficient asset selling costs). In practice, all asset disposals have fallen into this category, except the sale of Hunter Water's head-office and land sales.

The distinction between pre- and post-LIS assets has an arbitrary impact on incentives. For example, selling two otherwise identical parcels of land should not have a different impact on the RAB and future revenues.

Also, our current policy does not adjust the RAB for significant pre-LIS assets if a business can prove the asset was non-operational at the line in the sand. Providing 'proof' is open to interpretation and has led to a wide scope of claims and a disproportionate amount of time and effort for an immaterial impact on prices.

What is our proposed approach?

We propose deducting the value of asset disposals from the RAB (i.e. the customer share) as follows:

- As a default, adopt a 50:50 sharing ratio for the proceeds from all asset sales (net of efficient asset selling, CGT and rehabilitation costs). This will apply to all assets, regardless of whether they were operational when the RAB was established.
- Consider exceptions to the default only if the business or IPART can demonstrate reasons for doing so and if there is a material impact on prices.
- Continue to not adjust the RAB for routine write-offs and write-downs. These reflect accounting practice rather than underlying regulatory values.

We consider the proposed approach is proportionate and balances simplicity and risk. The 50:50 sharing ratio is consistent with Ofwat's approach to land sales,[15] Sydney Water's proposed approach to land sales,[16] and our approach to sharing rental revenue. Our proposed treatment of CGT is consistent with our approach to tax on cash capital contributions.

We do not have the data to accurately assess the impact of our proposed policy on the RAB and NRR. However, we examined Hunter Water's head-office sale, which was a once-off event and had the largest impact on the RAB (1 per cent) compared to disposals in any other year or for any other business. We estimate that applying our proposed policy to Hunter Water's head-office sale would have increased the NRR by about 0.1 per cent over the 2016 determination period, and a typical residential customer bill by around $1 per year.

A.4 Simplify working capital policy

We include a working capital allowance in the NRR so businesses can recover the opportunity cost incurred due to the time between providing regulated goods/services to customers and receiving payment for those goods/services (net of any revenue received due to a delay). The working capital allowance typically represents less than 1 per cent of the NRR.

We use the following formulas to calculate the working capital allowance:

Net working capital = receivables – payables + inventory + prepayments

Working capital allowance = net working capital x nominal WACC.

What are the problems with our current approach?

Our current approach is complex, mainly due to how we calculate receivables. In 2018, we revised how we calculate receivables. In addition to estimating receivables based on the length of the billing cycle, we also allowed for:

- Further delays in receiving payment, which mainly occur because customers are given time to pay after receiving a bill.
- Billing fixed charges partly in advance of delivering services.

These additions add complexity and are not always well understood, which can divert attention from more material issues. The purpose of the additions was to more accurately match a business's cash flows. However, the accuracy is not symmetrical between debtors (receivables) and creditors (payables). Our approach to payables is the simple and standard 30 days of payment, which does not account for other scenarios.

What is our proposed approach?

We plan to revert to our pre-2018 approach i.e. calculate receivables with reference only to the length of the billing cycle.

We consider this approach is proportionate and balances simplicity and risk. We believe it provides a benchmark working capital allowance that allows an efficient business to adequately manage its cash flows.

A.5 Adopt a 50:50 sharing ratio for all non-regulatory income

Non-regulatory income is income from unregulated services using regulated assets. Non-regulatory income from all sources is less than 0.5 per cent of the NRR.

What are the problems with our current approach?

Businesses are concerned about the incentive effects of sharing ratios, which has led to very detailed information requirements, modelling and proposals in pricing submissions. The business and IPART spend a disproportionate amount of time and effort for a small impact on prices.

What is our proposed approach?

We propose applying a 50:50 sharing ratio for **all** non-regulatory income. A 50:50 ratio has always been our default position for non-regulatory income. We believe this approach provides adequate incentives to provide the service and will avoid distraction from more important and material matters.

A.6 Use a pre-tax WACC for businesses that do not do tax accounting

In 2012, we adopted a post-tax WACC because a pre-tax WACC tends to overestimate the tax a business pays. For businesses that do tax accounting, we obtain forecasts of tax depreciation based on businesses' existing financial modelling of tax depreciation. However, WAMC and Central Cost Council (CCC) do not do tax accounting. To calculate a post-tax WACC for WAMC and CCC we currently calculate a tax asset base (TAB) to estimate tax depreciation.

What are the problems with our current approach?

The TAB is like the RAB in structure, but with two important differences. Since the TAB is not indexed, over time it becomes increasingly small relative to the RAB, therefore the tax allowance becomes larger, all other things being equal. Also, we do not have an accurate basis on which to reset remaining tax lives. Therefore, remaining asset lives becomes increasingly unreliable as we recalculate them at the end of each determination period.

What is our proposed approach?

For businesses that do not do tax accounting, we propose to use a (real) pre-tax WACC with an effective tax rate roughly based on a nominal cost of debt. The resulting tax provision is unlikely to be less reliable than our current approach, and it could in fact be more reliable over time.

As a second-best option, we could use RAB depreciation (instead of using a TAB) to calculate tax depreciation.

The impact on prices of adopting either of these approaches would be small. The tax allowance typically accounts for around 2-4 per cent of the NRR.

A.7 Simplify WAMC modelling

WAMC modelling has become disproportionately complex over time.

What are the problems with our current approach?

WAMC prices involves three models, with a combined total of around 90 separate RAB and TAB roll forward calculations, and 45 separate NRRs. Also, these calculations are performed after costs have been allocated to water sources and valleys in a process that is complicated and not transparent. The modelling is further complicated by pricing structures, and complex minimum bill calculations.

What is our proposed approach?

We intend to fundamentally re-think WAMC modelling. We will work closely with all interested stakeholders on this project: including DPE. NRAR, water users and their representative organisations, WaterNSW and any other stakeholders.

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