Submission to the Independent Pricing and Regulatory Tribunal

Response to IPART's Discussion Paper on the *Special Review on Water Pricing and Licensing – Regulating Water Businesses*

Discussion Paper No. 3 – Encouraging innovation in the water sector

25 October 2021

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1. Introduction

WaterNSW is pleased to submit this response to the Independent Pricing and Regulatory Tribunal's ("**IPART**") August *2021 Discussion Paper on Encouraging innovation in the water sector* ("**Discussion Paper**" or "**DP3**") as part of IPART's *Special Review on Water Pricing and Licensing – Regulating Water Businesses*.

About every four years, IPART sets the maximum prices that Sydney Water, Hunter Water, the Central Coast Council and Essential Water can charge their customers. IPART also regulates the bulk water charges that WaterNSW and the Sydney Desalination Plant can charge to their customers, and the Water Administration Ministerial Corporation's ("**WAMC**") charges for water planning, management and regulation services.

Also every four to five years, IPART recommends the terms and conditions of the operating licences for WaterNSW, Sydney Water, Hunter Water, and SDP to the Minister for Water. IPART regulates the performance of these businesses by monitoring their compliance against their operating licences each year.

Water utilities are monopoly suppliers of essential services to millions of NSW households. IPART's regulatory framework aims to ensure the water businesses' services meet the needs of their customers and the community.

IPART's stated intent of this review is to identify improvements in how IPART regulates the NSW 'monopoly' water businesses, to make the people of NSW better off.

In September 2021, IPART held a full-day public workshop with stakeholders to discuss how IPART can embed high powered incentives into the regulatory framework to incentivise innovation, which informed this Discussion Paper. During the workshop IPART:

- Received feedback on the range of incentives presented in DP3;
- Heard reputational incentives can be more effective than financial rewards in lifting performance;
- Heard from businesses about their innovation initiatives for new services, and the desire for dedicated innovation funds; and
- Saw support for customer and service performance incentive payments, which IPART believes could link better performance for mandatory services with delivering distinct, discretionary projects.

IPART's approach to encourage innovation in the water sector is summarised in the ten items illustrated below.[1]

[1] IPART Discussion Paper 3 – *Encouraging innovation in the water sector*, page 1.

Figure 1 – Summary of IPART's proposed approach to encourage innovation in the water sector

1	**Customers, costs and credibility**. Focus our regulatory approach around the '3Cs' of customer value, cost efficiency and credibility.
2	**Provide clear guidance**. Use 11 principles to outline our expectations for the customers, costs and credibility criteria, with a grading rubric showing how a business would meet the principles at a standard, advanced, or leading level.
3	**Encourage the best proposals from the business**. Allow the business to self-assess how well its proposal promotes customer value and cost efficiency, and justify that its proposal would be credibly delivered.
4	**Grade proposals**. IPART would grade proposals against customer value and cost efficiency at the 3 levels. Our grading would apply only if the proposal is credible.
5	**Reward high-quality proposals which promote customer value**. Provide a financial reward – a per cent of the revenue requirement – where we agree with the business that its proposal is advanced or leading.
6	**Tailor the design of the regulatory framework to our grading**, so every business delivers its commitments and improves over time.
7	**Promote customer outcomes**. Require all businesses to publish their annual performance against the customer outcomes that they have identified to promote the long-term interests of customers.
8	**Improve the incentive regime**. Expect advanced businesses, and require leading businesses, to opt-in to an improved incentive framework that applies to operating expenditure, capital expenditure, and key customer outcomes. A standard business would have a simpler framework with a limited range of incentive mechanisms.
9	**Focus the expenditure review**. Implement a range of improvements to the expenditure review process and focus the scope of our review – including any use of cost consultants – according to how well the proposal meets the '3Cs'.
10	**Focus on performance with a 6-year regulatory period**. Apply a '3-3-6' model, with a 6-year regulatory period and a mid-cycle health check.

After collating stakeholder feedback on the innovation Discussion Paper, IPART will outline its position on the topics covered in all three papers in the Draft Report, which is scheduled for November 2021. IPART will then hold a public hearing and release a Final Report in early 2022.

WaterNSW is encouraged by the focus that IPART is placing on customer centricity, innovation and embedding customers' preferences and the pursuit of innovation and efficiency in the regulatory framework.

This submission is WaterNSW's response to the specific matters raised in Discussion Paper 3 on encouraging innovation in the water sector.

1.1 Summary of positions

WaterNSW acknowledges and supports the collaborative approach that IPART has taken in reviewing the economic framework to ensure it remains fit for purpose. We support IPART's intent to ensure the regulatory framework leads to greater customer engagement, innovation and efficiency in the water sector.

IPART proposes to refine the economic framework based on the ‘grading’ of proposals drawing largely on the Essential Services Commission of Victoria (“**ESCV**”) Performance, Risk, Engagement, Management and outcomes (“**PREMO**”) model supplemented by new incentive schemes primarily based on the AER’s Better Regulation program. As discussed in this response, this is not WaterNSW’s preferred approach. However, if IPART maintains its overarching approach to the regulatory framework as outlined in the Discussion Paper, WaterNSW suggests that IPART should:

- Place greater emphasis on reputational incentives rather than financial incentives as these are more likely to achieve IPART’s objectives for greater engagement, efficiency, and innovation.
- Place less reliance on the grading of proposals and the financial rewards or penalties arising from discrepancies between the business’s self-assessment and IPART’s ultimate grading;
- If financial incentives are to be introduced, conduct a ‘paper trial’ for the next round of reviews to test the schemes with no financial rewards or penalties attached;
- Provide alternative forms of price control (e.g. revenue cap or weighted average price cap “**WAPC**”) to manage revenue or volume risk based on the unique circumstances of each business irrespective of IPART’s grading of the business’s regulatory proposal;
- Streamline the expenditure review process with key elements to be given effect in the next round of reviews;
- Introduce more effective tools to manage risks within the regulatory period to support including an expanded cost pass-through framework, a contingent projects regime and a capital reopener; and
- Introduce six-year determination periods only if appropriate risk mitigation tools as discussed above are in place. In the absence of such tools, five-year determination periods more appropriately balance the uncertainty of forecasts over a regulatory period and the regulatory burden of determinations.

IPART has assembled a regulatory package that draws on well-functioning elements of other regulatory regimes. However, we ask that IPART considers whether the discrete elements would operate effectively as a package. For instance:

- The customer grading elements of the PREMO framework may be appropriate for the ESCV in regulating the 17 Victorian utilities currently subject to the model where bespoke determinations are likely to be administratively unwieldy. However, with a smaller number of NSW water utilities, it is not obvious that the PREMO approach would be more effective in addressing the unique operating environments of each business compared with a more tailored approach.
- IPART has drawn heavily from the from the Australian Energy Regulator’s (“**AER**”) Better Regulation program when proposing to introduce financial incentives for operating expenditure (Efficiency Benefit Sharing Scheme or “**EBSS**”)), capital expenditure (Capital Expenditure Sharing Scheme or “**CESS**”) and service standards (Service Target Performance Incentive Scheme or “**STPIS**”). However, each of these incentive schemes (in isolation or in combination) took many years to develop, refine and settle the data requirements before the schemes were introduced by the AER with financial penalties and rewards.
- The AER’s incentive schemes operate as a package and we are concerned that focussing on these schemes in insolation of other elements of the AER framework may result in the schemes not working as intended. For instance, when developing its EBSS for operating

expenditure, the AER based the scheme's design on the fact that any material risks can be managed by the businesses through pass-through events and contingent projects. In the absence of these risk mitigation tools (as is currently the case in NSW), an EBSS in the form implemented by the AER should not be introduced for WaterNSW.

We support IPART conducting a thorough review process to develop any proposed incentives (similar to the AER's Better Regulation process) that holistically assesses the schemes' operation and how the schemes work in combination.

Overall, while WaterNSW encourages IPART to explore the well-functioning elements of other jurisdictions to encourage targeted outcomes, we would like to better understand how the various elements would work holistically as a package of reforms.

WaterNSW supports and welcomes IPART undertaking this review. We suggest that this review should not be a 'one off' occurrence and we encourage IPART to commit to a regular review of the framework following each round of metropolitan reviews. This will ensure that the framework is reviewed periodically to ensure it delivers on the long term interests of customers over time.

Ongoing reviews will also enable elements of the proposed framework changes to be progressively implemented and facilitate learnings for customers, the businesses and IPART that can be catered for as part of the ongoing reviews.

Our initial views

In addition to the matters discussed above, WaterNSW suggests that the following amendments to IPART's proposed framework for innovation are adopted:

- More tailored determinations in recognition of the fewer number of water utilities in NSW that are very different in terms of scale, scope and operating environments. A 'one size fits all' approach is unlikely to deliver improved value and may not align to differing customer expectations;
- Less reliance on financial incentives as reputational incentives are more likely to achieve IPART's objectives for the review;
- Direct funding for innovation via an innovation allowance of 0.1% of annual revenue over the determination period consistent with the AER's approach to funding demand management activities. This should complement, but not replace, any direct funding for specific programs identified in the business's proposal;
- The outcomes from this review should not apply to the 2025 WAMC determination or Broken Hill Pipeline determinations due to significant differences in operating environments compared to the current metropolitan review;
- For the 2025 rural bulk water determination, rather than the grading approach applying in totality, we suggest a more tailored approach to the review in recognition of the intricacies of the valley-by-valley approach to the pricing of rural bulk water, combined with:
  - The availability of alternative forms of price control (e.g. a revenue cap);
  - The introduction of effective risk mitigation tools;
  - A more streamlined efficiency review;
  - No new financial incentive schemes; and
- Each utility should be enabled to propose measures to address long-term pricing or investment risks for IPART to review on a case-by-case basis. By definition, it is in the

long term interests of customers to provide opportunities for utilities to propose, and for IPART to accept, long term solutions to challenging problems that may not be catered for under the current framework. Suggested approaches are discussed in Section 7.

The following sections address the topics raised by IPART in the Discussion Paper.

2. Encouraging good proposals

2.1 Clearer guidance would help water businesses target their proposals

WaterNSW agrees with IPART that, in practice, the quality of customer engagement would fall along a spectrum of quality that depends on the characteristics of each business's customer base, shifting over time as engagement practices evolve and improve.

We consider that a more tailored approach to developing pricing proposals will deliver more targeted outcomes than an approach that largely reflects the ESCV approach to regulating the Victorian water utilities supplemented by AER-based incentive schemes.

2.2 Self-assessment and grading

We question whether a PREMO-style approach is appropriate for the NSW water sector that is characterised by fewer utilities with very different operating environments and few (if any in the case of WaterNSW) benchmark peers. This suggests more tailored or bespoke arrangements targeted to the size and complexity of each determination are likely to be more appropriate.

WaterNSW considers that if grading to denote 'standard, advanced or leading' categorisation is to occur, it should be made relative to the business's own performance against its previous proposal, rather than comparing to the proposals of the other NSW water utilities. Differences in operating environments make comparisons challenging and potentially arbitrary.

For example, in the Greater Sydney area, WaterNSW supplies raw water to Sydney Water and three councils (Wingecarribee Shire Council, Shoalhaven City Council and Goulburn-Mulwaree Council). We also provide raw and unfiltered water supply to over sixty other smaller customers. This contrasts to other utilities with much larger customer bases and that provide water and wastewater services or large single asset businesses (in the case of the Sydney Desalination Plant):

- **Sydney Water** provides water, wastewater and other services to 5.1 million people in Greater Sydney; and
- **Hunter Water** provides water and wastewater services to 600,000 people in the Lower Hunter region.
- **Sydney Desalination Plant** owns and operates a desalination plant that provides raw water into Sydney Water's facilities in Sydney.

We question the benefits of a 'one size fits all' approach to grading and comparing businesses with materially different operating environments – noting that this grading drives the availability of incentive mechanisms and differing expenditure review practices based on IPART's preliminary framework design – as this provides little insight into the circumstances of each business and the outcomes that are targeted to meet the long term interests of customers.

Under the ESCV PREMO approach, the utility self-assesses how well it meets the key principles, which would consider customer centricity alongside other markers of a good quality proposal (e.g. evidence of cost efficiency over the life-cycle of assets). Guidance on each principle is provided by the ESCV – with a “rubric” (i.e. a set of instructions or rules) setting out expectations of the business at different grades, and test questions to guide this self-assessment.

The business’s proposal is then judged by the regulator on how well it meets the key principles, with an overall score, or grade. For example, the ESCV grades the quality of the pricing submissions as to whether they are ‘leading’, ‘advanced’, ‘standard’ or ‘basic’.

The business’s self-assessment and the regulator’s grading are used to inform a range of financial, reputational and administrative incentives (e.g. one incentive is to provide a higher rate of return for a leading proposal compared to a standard one).

IPART proposes to adopt much of the ESCV PREMO framework, including the approach to grading based on self-assessment and IPART’s ultimate assessment, and to incorporate incentive schemes developed largely by the Australian Energy Regulator (“**AER**”) and the UK Office of Water Regulation (“**Ofwat**”).

We are keen to better understand how the various elements of other ESCV, AER and Ofwat regulatory frameworks would operate holistically when considered as a package.

For instance, IPART’s proposed introduction of a financial incentive based on the PREMO model to minimise the difference in grading of a proposal between the business’s self-assessment and IPART’s ultimate assessment in our view suggests a solution to a problem that we do not believe exists. IPART’s proposal suggests an element of ‘game theory’[2] whereby the utility may attempt to over- or under-promise at the determination and therefore requires a financial incentive to reveal its true intentions. In our experience this is not a valid concern and we question the focus on minimising the gap between the business’s and IPART’s assessment of the pricing proposal.

Without a sufficiently large group of peer companies to make any comparisons meaningful for WaterNSW, we suggest less reliance on gradings and more reliance on a tailored determination process based on individual business performance.

2.3 Form of price control should not be linked to grading

IPART currently sets maximum prices for water businesses, and it proposes continuing this approach for businesses with a proposal graded as ‘standard’.

However, IPART indicates it would expect advanced or leading businesses to explore and propose the most appropriate form of price control, which could be a revenue cap or a weighted-average price cap. IPART states that these businesses would need to demonstrate they understand what tariff structure provides the best balance of risk between customers and the business, particularly over the longer-term, while ensuring they are implementable and easy to audit.[3]

IPART appears to suggest that the form of price control (e.g. a revenue cap) is an ‘incentive’ that would only be available to ‘advanced’ or ‘leading’ firms.

[2] In *The Theory of Games and Economic Behavior* (1944), von Neumann and Morgenstern observed that economics is much like a game, wherein players anticipate each other’s moves, and therefore requires a new kind of mathematics, which they called *game theory*.
[3] IPART Discussion Paper 3 – encouraging innovation, page 16.

WaterNSW considers that the form of price control should not be linked to a firm's 'grading'. Instead, it should be considered in the wider context of managing volume and revenue volatility to enable a business to recover its efficient costs, while providing opportunities to encourage greater tariff offerings for customers.

WaterNSW is contemplating the use of revenue caps or alternative forms of price control in our future reviews and this should not be restricted by our self-assessment (or IPART's assessment) as to whether our proposal is graded as 'standard', 'advanced' or 'leading'.

3. Using ex post incentives

IPART has drawn heavily from the from the AER's Better Regulation program when proposing to introduce financial incentives for:

- Operating expenditure (EBSS);
- Capital expenditure (CESS); and
- Service standards (STPIS).

WaterNSW notes, however, that each of these incentive schemes (in isolation or in combination) took many years to develop, refine and settle the data requirements before the schemes were introduced by the AER with financial penalties and rewards.

We note that the AER's incentive schemes operate as a package and elements should not be added to the NSW regulatory framework without consideration how the various elements fit together. For instance, when developing its EBSS for operating expenditure the AER stated that:

> *We acknowledge the EBSS will reward or penalise NSPs for some forecasting error associated with uncontrollable events. However, on the whole, the risk of uncontrollable events presents both upside and downside risk to NSPs. Relevantly,* ***any material risks can be managed through pass-through events and contingent projects*** (emphasis added).[4]

As noted by the AER, the EBSS can only work effectively if it is paired with appropriate risk management tools for uncontrollable events – specifically effective cost pass-throughs and contingent projects which IPART has specifically indicated it is not inclined to introduce.

In the absence of cost pass-throughs and contingent projects or other suitable cost risk mitigation mechanisms (including capital reopeners) an EBSS in the form implemented by the AER with minimal exclusions should not be introduced for WaterNSW.

Our views on the EBSS, CESS and STPIS also apply to IPART's proposed introduction of Output Delivery Incentives ("**ODI**") based on Ofwat's ODI scheme.

We consider that any IPART-proposed incentive scheme would need to be carefully developed and tested to ensure each is fit for purpose before being introduced. Given that IPART's incentive scheme development process has only just commenced, we consider that any new schemes will not be sufficiently developed in time to be implemented for the next round of reviews.

[4] AER *Better Regulation Explanatory Statement Efficiency Benefit Sharing Scheme for Electricity Network Service Providers, November 2013*. Page 26.

WaterNSW considers that reputational incentives, such as 'competition by comparison' where relevant and process and reputational rewards, are more likely to achieve IPART's objectives than financial incentives, whether these are for engagement, operating or capital efficiency, or performance against service standards or other outcome-based measures.

Should IPART ultimately decide to introduce a new incentive scheme (or schemes), we suggest that a '**paper trial**' should instead be undertaken for the next round of reviews with no financial rewards or penalties attached.

Furthermore, we suggest IPART consider instituting a dedicated review process to develop any proposed incentives (similar to the AER's Better Regulation process) that holistically assesses the schemes' operation and how individual schemes work in combination, while at the same time establishing the data requirements that are necessary to underpin the incentives.

3.1.1 Operating expenditure incentive schemes (EBSS)

Should IPART consider introducing an EBSS, WaterNSW considers that there are several unanswered elements that need to be addressed as part of the implementation, including:

- The AER's EBSS is based on any increase or decrease in operating expenditure, relative to the allowance, is shared approximately 30:70 between Network Service Providers ("**NSP**") and consumers over a five year period.[5] IPART has indicated sharing of 20:80 may be more appropriate based on a strict application of the AER EBSS adjusted for a different WACC rate and length of regulatory period. The strength of the financial incentive and revenue at risk requires extensive consultation before being introduced.
- As outlined above, the availability of cost pass-throughs and contingent projects was a key factor in managing cost risk that formed the basis of the AER introducing the EBSS in its current form. In the absence of these mechanisms, WaterNSW does not support the introduction of an EBSS with financial rewards or penalties.
- The relationship between operating expenditure, capital expenditure, service performance and outcome incentive schemes needs to be thoroughly assessed as a package which could be established during a paper trial. As we do not believe that this could occur over the short term, WaterNSW does not support the introduction of financial rewards or penalties for our next round of reviews.

4. Streamlining the expenditure review process

IPART indicates in the Discussion Paper that:

> *Through this review, stakeholders have argued the current expenditure review process is burdensome and creates barriers to innovation. Our current approach, while detailed, has become heavy handed and lacks the strong incentives for businesses to show their true efficient costs and seek further efficiencies.*[6]

We commend IPART for its frank assessment of the existing expenditure review process and agree that streamlining the process is likely to lead to lower administration costs and a more focused determination process. We question, however, whether introducing stronger incentives over time to encourage businesses to 'reveal' their efficient costs would ever obviate the need for an expenditure review and as such we support IPART's approach to streamlining the review

[5] AER *Better Regulation Explanatory Statement Efficiency Benefit Sharing Scheme for Electricity Network Service Providers, November 2013*. Page 7.
[6] IPART Discussion Paper 3 – encouraging innovation, page 24.

process. We focus our comments on how IPART might streamline the expenditure the review process, and what is proposed or possible for the next round of expenditure reviews.

In response to a stakeholder question at the 21 September 2021 workshop, IPART indicated that there may be minimal changes to the expenditure reviews for the 2024 round of determinations. WaterNSW would see this as a missed opportunity and suggests that more could be done to streamline the expenditure reviews in the next round of metropolitan reviews.

WaterNSW is well placed to comment on the expenditure review process based on our experience of undertaking separate expenditure reviews over the past two years as a result of our four IPART pricing determinations.[7] In our experience, the expenditure reviews have differed significantly. For instance:

- The number of requests for information ("RFIs") has varied from over 300 during the 2021 Rural Valleys review, to 30 for our WAMC-related costs. We note that the current Broken Hill Pipeline review has taken a more targeted and 'fit-for-purpose' approach, which we welcome. We understand from other utilities that the number of RFIs from other consultants has been considerably less; and
- The application of 'catch-up' efficiencies also appears to vary between consultants.

In order to avoid the perception that the outcome from a given expenditure review is materially influenced based on the firm appointed suggests that more guidance from IPART on the scope of the review and how efficiencies are applied may be required to ensure a more consistent approach is applied across utilities.

We therefore support IPART's proposed improvements to the expenditure review process to:

- Collect more robust information to allow IPART to quickly assess the efficiency of cost proposals; and
- Focus the scope of work of cost consultants based on the concerns IPART identifies in pricing proposals.

We also acknowledge that:

> "S*ome of* [IPART's proposed] *changes will take time to implement. But we need to make changes now to allow for potential improvements in the future, such as fast tracking proposals, or to engage expenditure consultants by exception*".[8]

IPART suggests the following steps would be taken in the evolution of the expenditure review process:

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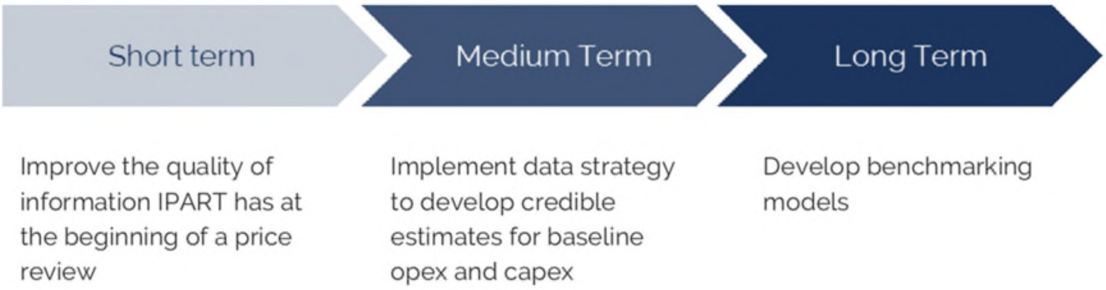
[7] WaterNSW is subject to separate IPART determinations for our water services relating to Greater Sydney bulk water, rural valley bulk water, WAMC licensing and water management charges, and the Broken Hill Pipeline.
[8] IPART Discussion Paper 3 – encouraging innovation, page 24.

Figure 2 – IPART's proposed evolution of the expenditure review process

Figure 4.1 Evolution of the expenditure review process



Source: IPART Discussion Paper 3 – Innovation, Figure 4.1, page 25.

While WaterNSW generally supports IPART's approach to streamlining the expenditure review process, we are concerned that the refinements over the short to medium terms are limited to:

- Improving the quality of information IPART has at the beginning of a price review'; and
- Implementing a data strategy to develop credible estimates for baseline costs.

IPART proposes the following changes:

1. Reviewing the quality of a business's systems and processes before a pricing review, and testing how well they are implemented at the pricing review;
2. Improving the collection of operating and capital expenditure information and aligning information to the ESCV's model;
3. Establishing an efficient baseline of expenditure:
    - — IPART would move to a base–step–trend approach to assess operating expenditure;
    - — IPART would ask businesses to develop predictive models of longer-term capital expenditure needs, particularly for renewals and growth capital expenditure
    - — Over time, we would develop better top-down benchmarking models;
4. Conducting ex post capital expenditure reviews by exception;
5. Asking consultants to recommend a range for the efficient expenditure allowance
6. Requiring businesses to provide an explicit list of productivity improvements found and forecast, and to nominate an ongoing efficiency factor.

WaterNSW generally supports IPART's proposed changes to the expenditure review process, with the following caveats:

- While our approach to information collection is largely consistent with the ESCV model at a high level, we would seek to ensure that the specific reporting requirements and any required changes to our reporting processes are assessed in detail before locking in any new reporting arrangements. We would also ask that IPART consider the businesses' existing reporting frameworks so as to avoid the cost of restating data;
- Experience with predictive models for renewals and growth-related capital used in other jurisdictions (e.g. the AER's replacement expenditure ("repex") and augmentation expenditure ("augex") models) highlights that a large pool of comparable firms is required to establish representative models. This does not exist in the NSW context, which calls into question any predictive powers of these models for WaterNSW's expenditures; and

- The absence of benchmark peers for WaterNSW in Australia or abroad renders the outcomes from any top-down benchmarking for revenue-setting purposes largely arbitrary. WaterNSW cautions IPART placing any reliance on top-down benchmarking for WaterNSW until a robust set of benchmark peers is assembled and the theoretical foundation of the analysis is subject to external consultation and independent review.

We suggest several changes that could be applied for the next round of reviews, including:

- Requiring the expenditure review consultant to propose a range of outcomes rather than a single point estimate as is the current practice;
- Conducting ex post capital expenditure reviews by exception;
- Focussing the scope of work of expenditure review consultants based on the concerns IPART identifies in pricing proposals; and
- IPART providing additional guidance to its expenditure review consultants on the assessment of 'efficiency' (including assessing whether 'catch-up efficiencies in the absence of robust benchmarking are appropriate) to ensure a consistent methodology across utilities.

WaterNSW considers that the above improvements should be implemented from 2024 to streamline the determination process and reduce the costs of regulation for stakeholders and customers.

5. Length of determination period and risk mitigation

As a general proposition, WaterNSW supports IPART's proposal to move to longer regulatory periods with a mid-period check-in.

However, we are concerned that IPART has not provided sufficient tools to manage uncertainty and risk *within* a six-year regulatory period. This is likely to lead to an unacceptably high risk of actual results varying relative to IPART's allowances. This risk is largely borne by the businesses.

A six-year determination period, when supported by a holistic approach to efficient risk mitigation, may appropriately balance the uncertainty of forecasts over a determination period and the regulatory burden of determinations.

However, in the absence of appropriate tools to manage risk within a regulatory period (e.g. without an effective approach to cost pass-throughs and contingent projects), WaterNSW considers that a shorter regulatory period (i.e. five years) is required.

In proposing an appropriate length of determination period, WaterNSW considers that there are several key risk areas where outturn results may differ significantly from the forecasts used in setting the determination, particularly in the later years of a determination period that is extended by 50% (from four to six years).

In preparing our pricing proposals, WaterNSW takes an efficient approach to risk mitigation, which includes an assessment of the length of the regulatory period. This includes introducing a framework for efficiently managing movements in those costs that are beyond WaterNSW's reasonable control as discussed below.

5.1 Our approach to risk management

In providing regulated services, WaterNSW is exposed to a range of risks that may influence the costs of providing services, or the revenues we receive from providing services. These costs and/or revenues may differ from those assumed by IPART in making its determination. This creates a risk that WaterNSW over- or under-recovers the efficient cost of providing services, as well as a risk that prices do not reflect the cost of efficiently providing these services.

We have analysed the key risks that could impact the costs of providing services over a determination period, to determine how best to address each relevant risk. We have sought to consider these risks in an integrated way across the ‘regulatory package’ and we are seeking a risk management framework that allows us to efficiently manage and where appropriate share risks with customers. Ultimately, we think this proposed package is in the long-term interests of customers and will enable businesses to be more accountable for their results.

In determining the most appropriate approach to address each risk, we have drawn on standard regulatory principles including:

- Allocating risks to the party best placed to manage them;
- Maintaining appropriate incentives for WaterNSW to manage risks within its reasonable control;
- Considering impacts on regulatory certainty and administrative costs; and
- Ensuring WaterNSW is compensated for risks only once, and that prices do not include compensation for risks shared with customers.

This is consistent with the approach IPART has previously taken when it has analysed and allocated risks faced by utilities over the determination period.

Figure 3 below, based on information provided as part of 2022 pricing proposal for the Broken Hill Pipeline outlines our proposed risk management and allocation framework.

Figure 3 – WaterNSW’s proposed risk management and allocation framework

Action	Category	Compensation for risk or risk allocation/sharing mechanism	Risk examples	Cost or revenue risk?	Risk allocation
Treat/accept risk	Systematic risk	Rate of return / WACC	Risks that cannot be eliminated through diversification e.g. macroeconomic factors	Cost	Business
	Business-specific risk	Cost allowance (to meet good industry practice –complying w/ licence conditions)	Staff safety in relation to operating and maintenance, breach of licence, equipment failure; energy efficiency (e.g. energy use per ML)	Both	Business
Share risk	Business-specific risk	Cost reflective tariff structures	Water demand / volume risk	Both	Customers
		Negotiated agreements (cost recovery of additional services)	Essential Water unable to accept water in the case of the Broken Hill Pipeline	Both	Shared
		Cost allowance (insurance)	Natural disasters, major asset failure	Both	Business (via insurers)
Proposed features		Cost pass-through	Insurance cap/credit/coverage event regulatory & service standards/tax changes	Cost	Customer
		Contingent projects or capital reopeners	Large unforeseen / uncertain investments required but not in revenue allowance	Cost	Shared

The framework groups the identified action for each risk (treat, accept or share), whether it is systematic or business-specific and how we propose to be compensated for managing or bearing the risk, or the mechanism for sharing the risk. We also summarise whether the risk affects our costs and/or revenues and whether it is allocated to WaterNSW, our customers or is shared.

In summary, after analysing the key risks and applying these principles, we are proposing the introduction of two key risk management mechanisms that we consider meets these regulatory principles. These are mechanisms to update access and usage prices during a determination period to manage movements in the efficient costs of specified events that could occur and are beyond the reasonable control of WaterNSW during a 2022 determination period.

These mechanisms (as highlighted in the box in Figure 3 above) are:

- Cost pass-throughs; and
- Contingent projects and capital reopeners.

5.1.1 Cost pass-throughs

Cost pass-through mechanisms are a common part of incentive based regulatory frameworks.[9] They are used to manage the risk associated with external events that occur within a determination period that are outside the control of the business, but have a material impact on costs and hence the financial position of the firm.

These risks are unable to be adequately managed through internal risk management, insurance or self-insurance. Examples can include major changes to regulatory obligations or natural disasters.

Cost pass-throughs provide a mechanism to allow regulators to review the efficient costs associated with events (after they have occurred) that could not be forecast as part of the revenue proposal and allow regulated businesses to recover the determined efficient costs to ensure that prices continue to reflect efficient costs.

The costs associated with pass-through events are those that would have been included in a determination had WaterNSW and IPART known with perfect foresight the scope, timing and efficient costs of the pass-through event in advance. For the majority of pass-through events, at least one element of the scope, timing or efficient costs of the event are unlikely to be known over a determination period.

Therefore, WaterNSW proposes a targeted cost pass-through framework to address the risk of defined exogenous events occurring during a determination period that may change the efficient costs of providing water services (i.e. such that efficient costs differ from those assumed by IPART in setting prices in a determination).

IPART has long-standing cost pass-through principles in place and has discretion under the IPART Act to define a cost pass-through mechanism.

The benefits of an effective cost pass-through framework include:

[9] For instance, the regulatory framework for energy networks explicitly provides for the AER to approve cost pass-throughs, contingent projects and reopeners. The ESCV also has a well-established “uncertain and unforeseen events” mechanism to account for events that were significant and uncertain or unforeseen at the time of the original determination.

- The ability to support longer determination periods; and
- A fair sharing of risk and keeping prices low at a determination. Pass-through costs are only faced by customers when (or if) a pass-through event occurs and IPART assesses the efficient costs to address the event.

5.1.2 Contingent projects and reopeners

The financial risk imposed on WaterNSW if a major investment is required during a regulatory period is significant if the costs are not recovered through IPART's determination process. Uncertainty around any unforeseen expenditure programs requires that WaterNSW consider risk mitigation strategies to address the financial and revenue uncertainty.

We believe it is in the long term interests of customers for IPART to introduce 'contingent projects' and 'reopeners' within IPART's regulatory framework. Currently contingent projects and capital expenditure reopeners are included in the National Electricity Rules ("**NER**") for electricity networks:

- The contingent project mechanism allows the regulator to exclude from the forecast expenditure established in the review a project which is uncertain, but which has a clearly defined trigger event, but to include it later if it is required; and
- The capital expenditure reopener mechanism allows for the inclusion of additional capital when the network business spends at least 5% more than the opening RAB.

A contingent project mechanism or a reopener has merit for addressing the risk of new (unfunded) investments; however, they do not form part of IPART's current regulatory framework.

Contingent project mechanism

The AER is required by the NER to assess applications by energy network service providers ("**NSP**") to amend their revenue determination to include the revenue required for a contingent project. The NER sets out the requirements for businesses to lodge applications and the obligations on the AER in assessing those applications.

A contingent project is a project assessed by the AER as reasonably required to be undertaken, but which is excluded from the *ex-ante* capital expenditure allowance in a revenue determination because of uncertainty about its requirement, timing or costs. A revenue determination also identifies associated trigger events.

Should the trigger event occur, an NSP may apply to the AER during the regulatory period to amend the revenue determination to include forecast capital expenditure and incremental operating expenditure for the project.

The threshold is the greater of $30 million or 5% of the annual revenue requirement in the first year.

The contingent event provisions operate on a limited basis where the nature of the expenditure is forecast at the time of the business's revenue proposal, but is contingent on a 'trigger event'.

As with pass-through events, contingent projects provide a mechanism to allow regulators to review the efficient costs associated with events (after they have occurred) that could not be forecast as part of the revenue proposal and allow regulated businesses to recover the determined efficient costs to ensure that prices continue to reflect efficient costs.

Capital expenditure reopener

When capital expenditure variations outside of a pre-determined threshold, that occur due to circumstances beyond a business's control, the business (or IPART) can request a targeted reset of the determination.

IPART has suggested that the criteria for a reopener are:

1. Impacting services – current prices are (or will) affect the business's ability to provide services to customers; or
2. Cost reflectivity – prices are no longer cost reflective.

WaterNSW agrees with these criteria and proposes that the pre-determined threshold for the request for targeted reset be specified as forecast capital expenditure that is at least 5% of the opening RAB value, consistent with the capital reopener requirements in the NER.

Our preference to manage the risk of large uncertain investments is for IPART to introduce both a National Electricity Market-style contingent projects mechanism and a reopener.

If IPART considers it is unable to introduce these mechanisms, other risk mitigation mechanisms such as reopening specific elements of a determination, rolling forward the expenditures in the Regulatory Asset Base ("**RAB**") for the subsequent determination (including funding costs) and or providing for shorter determination periods; however, we consider these to be 'second best" options to manage the risk of investing in large unfunded projects.

The availability of these risk mitigation mechanisms will provide appropriate incentives for businesses to invest in efficient infrastructure (e.g. at the optimal time and quantum) and not provide a disincentive to delay investment until the subsequent regulatory period.

We ask that IPART reconsider its approach to managing uncertainty and risk, particularly in light of a preference for longer regulatory periods and to ensure businesses have a reasonable opportunity to recover their efficient costs within and between regulatory periods.

5.2 How pricing and licensing reviews would fit together

WaterNSW supports some alignment of the timelines for the pricing and licensing reviews, in recognition that the operating licence sets the minimum standards that are required to be in place for the pricing determination. Variations (i.e. improvements) to those minimum standards would be the subject of consultation with customers as part of the determination process.

As the operating licence sets minimum standards, it is important that any changes to the previous licence conditions are settled in sufficient time to enable WaterNSW to fully assess the efficient costs of meeting the standards and to include those expenditure programs into the forecast revenue and prices as part of the business's pricing proposal. WaterNSW suggests that the operating licence review should be completed at least 12 months prior to the submission lodgement date for the relevant pricing proposal.

With the implementation of the findings of this regulatory framework review, we envisage that the regulatory operating environment of the water businesses will evolve. Businesses will be engaging with customers more effectively and delivering the required services and standards.

In this scenario we note that the operating licence would merely be a formality that documents the minimum standards as a 'fail-safe' mechanism. With this in mind, we suggest that the licensing review should be undertaken on an exception basis rather than reassessing all elements in order to streamline regulatory processes and reduce costs for customers.

6. Funding innovation

WaterNSW is committed to innovation and continuous improvement. We note, however, that more could be done if the in-built bias against innovation in the current regulatory framework (including through examples previously cited by IPART on the challenges of projects that 'fail' and the expenditure review process) are addressed.

6.1 We propose an innovation allowance based on the AER scheme

In its discussion paper, IPART has not supported direct funding for innovative projects and has instead focussed largely on other incentives and customer engagement to promote additional innovation.

WaterNSW suggests that while these matters are not mutually exclusive, providing a small amount of funding for innovation is likely to lead to lower cost outcomes that are in customers' long-term interests.

In not supporting direct innovation funding, IPART noted that "*customers are absorbing the risk of potentially failed projects*'.

By their very nature, assessing new ways of doing things may result in some projects that fail and some that succeed. However, the upside of a successful project that reduces the costs of providing water services is likely to outweigh the pricing risk of failed projects. Providing some limited funding for innovation is likely to help overcome the inherent obstacles in the regulatory framework for businesses to pursue innovative outcomes.

There are significant potential benefits to consumers that would not be realised if the projects that would be funded by the allowance do not proceed. We hope IPART reconsiders its stance on this matter.

As noted by WaterNSW at the June 2021 Innovation workshop, the AER's May 2021 *DM Innovation Allowance Mechanism* ("**DMIAM**") provides 0.1% of annual building block revenue for each Transmission Network Service Provider ("**TNSP**") per regulatory period to fund research and development in demand management with the potential to reduce long-term network costs.[10]

In assessing whether to introduce an innovation allowance, the AER stated that:

> *The objective of this Mechanism is to provide an allowance to TNSPs to undertake not fully proven demand management projects and programs. Such activities have a level of risk of not being able to deliver favourable outcomes. Thus, without this allowance, TNSPs may be less inclined to try out new ideas to manage their networks.* ***While there is a risk that projects funded by the allowance may not result in a successful outcome, it is expected that some of the new initiatives will result in significant long-term benefits to consumers in reducing network investments.*** *This means there are significant potential benefits to consumers that would not be realised if the projects that would be funded by the allowance do not proceed* (emphasis added). [11]

[10] See WaterNSW presentation to IPART Innovation workshop, slide 7. The AER's incentive applies to regulated revenue (not operating expenditure as stated by IPART on page 40 of the discussion paper.

[11] Ibid, page 11.

While there may be some administrative challenges associated with introducing an innovation allowance, these are not insurmountable as demonstrated by the AER. We encourage IPART to reconsider its stance on introducing an innovation allowance that is in the long-term interest of customers and to reassess the approach recently adopted by the AER.

The AER's innovation allowance in recent decisions ranges from $1.1 million to $4.1 million over the regulatory period as illustrated in the table below: [12]

Table 1 TNSPs' average annual actual revenue for 2006-2020 and indicative DMIAM allowance per regulatory control period ($m, 2020-21)

	Powerlink	TransGrid	AusNet (T)	ElectraNet	TasNetworks (T)
Actual revenue	785	640	557	281	187
Sum of average annual revenue over a 5 year period	3,924	3,198	2,784	1,404	937
Indicative DMIAM allowance	4.1	3.4	3.0	1.6	1.1

Source: AER analysis; TNSP 2020 data report.

Under the current framework, 'learn by doing' projects that are not deemed 'prudent and efficient' by IPART and its consultants as part of the expenditure review process are likely to be disallowed and excluded from the setting of the revenue requirement.

In this instance, the businesses would be subject to the likely scenario of needing to absorb the costs of any 'failed' projects. In this case the business has the incentive to not pursue projects that are unlikely to withstand the expenditure review process, even though the learnings from the project could reduce the overall cost to serve.

We propose that, consistent with the AER's DMIAM, IPART provides innovation funding of 0.1% of the annual net revenue requirement over the determination period for bulk water services to Greater Sydney customers.

A strict application of the 0.1% innovation funding allowance adopted by the AER would provide approximately $200,000 per year over the regulatory period to WaterNSW for Greater Sydney. This level of direct innovation funding would result in an impact of approximately **9 cents per year** on a Sydney Water residential customer's bill for innovation funding for WaterNSW.

We suggest that direct funding for innovation should complement, and not replace, any direct funding for specific programs identified in the business's proposal. For example, direct funding of our Science program as contained in the Greater Sydney and Rural Valleys determinations should be treated separately from the innovation allowance, as the latter provides an incentive to pursue additional innovation programs during the determination period.

[12] See AER May 2021 DM Innovation Allowance Mechanism https://www.aer.gov.au/system/files/AER%20-%20Explanatory%20statement%20-%20Transmission%20demand%20management%20innovation%20allowance%20mechanism%20-%20May%202021.pdf

We request IPART to reconsider its stance on direct innovation funding given the potentially significant gains from improved focus on innovation and the very modest impact the funding has on customer bills.

7. Supporting a long term focus

WaterNSW supports and encourages IPART's approach of targeting outcomes that are in the long term interest of customers. This includes providing incentives for efficient investment at the optimal time and scale and minimising bill impacts for customers as a result of the investments.

Enabling a utility to propose measures to address long-term pricing or investment risks for IPART to review is appropriate and IPART should consider the merits of each proposal on a case-by-case basis.

The use of innovative measures to promote a longer term focus should be in the regulatory 'toolkit' and available by the utility to propose, and for IPART to accept. These measures would help ensure the business is able to invest in infrastructure at the appropriate time and to minimise customer bill impacts in the longer term (i.e. between multiple regulatory periods) than is readily catered for under the current framework. These mechanisms include:

- **Alternative depreciation profiles** – while changing depreciation is available today, it tends to be limited to setting the amortisation rate for pricing purposes based on the technical life of the asset. While this is generally not an unreasonable approach (and is used by many regulators), what it can do is 'back-end load' the recovery of assets to future generations. This can have the effect of:

    - Lowering regulated revenues and prices in the short term, while shifting the likely recovery of the investment to future generations. This 'intergenerational inequity' pushes price instability to future customers;
    - Pushing back the recovery of cash flows that can impact on the business's credit rating that in turn can lead to a higher cost of funding if the asset lives are longer than the lives used for accounting or tax purposes.

  In recent IPART determinations, WaterNSW has seen the technical review consultants recommend, and IPART accept, longer asset lives for some key infrastructure assets. For instance, in our 2020 Greater Sydney Determination (and also applied in our 2021 Rural Valleys Determination) Atkins proposed, and IPART approved, extending the asset life for pipelines by 50% (from 80 to 120 years) and dams by 100% (from 100 to 200 years). We consider that IPART should review its approach to balancing the short term pricing impacts of extending asset lives with the longer term effects on investment and customer bills over many regulatory periods.

- **Annuities and or other funding alternatives** (e.g. 'escrow' or 'equalisation' funds') that bring forward and smooth the revenues and prices associated with large investments (e.g. once a project is approved rather than commissioned). Mechanisms that ensure no windfall gain or loss (i.e. maintain net present value neutrality) may be effective tools to support efficient investment while also facilitating bill stability over a longer period.

WaterNSW notes that it is not possible or practical to specify every conceivable investment need or funding / pricing option on an *ex ante* basis as part of this framework review. However, we consider that is appropriate for IPART to provide a utility with the ability to propose novel approaches at each determination to address its unique pricing and investment circumstances to deliver long term value to customers. This is a form of innovation that IPART should encourage and support.

By definition, it is in the long term interests of customers to provide opportunities for utilities to propose, and for IPART to accept, long term solutions to challenging problems that may not be catered for under the current framework. We suggest that any proposals by the business would be the subject of appropriate consultation with customers to assess whether the proposals are in their long term interest.

8. Responses to IPART's questions

General IPART questions

Q1	***What are your overarching comments about our proposed approach?***

WaterNSW acknowledges and supports the collaborative approach that IPART has taken in reviewing the economic framework to ensure it remains fit for purpose. We support IPART's intent to ensure the regulatory framework leads to greater customer engagement, innovation and efficiency in the water sector.

IPART proposes to refine the economic framework based on the 'grading' of proposals drawing largely on the ESCV PREMO model supplemented by new incentive schemes primarily based on the AER's Better Regulation program. As discussed in this response, this is not WaterNSW's preferred approach.

However, if IPART maintains its overarching approach to the regulatory framework as outlined in the Discussion Paper, WaterNSW suggests several features that IPART should consider in Section 1.1 of this response.

IPART has assembled a regulatory package that draws on well-functioning elements of other regulatory regimes. We seek further information as to how the discrete elements would operate effectively as a package.

Q2	***Should separate funding for innovation be a part of our regulatory framework? If so, how would such a scheme be designed to promote a demonstrably better outcome for customers?***

Yes. An innovation allowance similar to the AER's Demand Management Innovation Allowance 0.1% of regulated revenues is an appropriate and minimalist approach to addressing the in-built bias against innovation in the current regulatory framework. There are significant potential benefits to consumers that would not be realised if the projects that would be funded by the allowance do not proceed.

WaterNSW's response to this question is provided in Section 6.

Framework design questions

Q1	***How effectively would our 11 principles promote a better regulatory process, and support our customer value, cost efficiency and credibility framework?***

WaterNSW does not support the approach to grading of proposals and as such we do not provide comment on IPART's 11 principles. We support a more tailored approach to regulatory determination process in recognition of the relatively small number of water utilities in NSW and the vastly different operating environments across the businesses.

Q2	***How effectively would our proposed grades, and grading rubric, motivate businesses to develop proposals that promote customers' long-term interests?***

IPART proposes to refine the economic framework based on the 'grading' of proposals drawing largely on the ESCV PREMO model supplemented by new incentive schemes primarily based on the AER's Better Regulation program. As discussed in this response, this is not WaterNSW's preferred approach that focusses on more tailored reviews.

However, if IPART maintains its overarching approach to the regulatory framework as outlined in the Discussion Paper, WaterNSW suggests that IPART should:

- Place greater emphasis on reputational incentives rather than financial incentives as these are more likely to achieve IPART's objectives for greater engagement, efficiency, and innovation.
- Place less reliance on the grading of proposals and the financial rewards or penalties arising from discrepancies between the business's self-assessment and IPART's ultimate grading;
- If financial incentives are to be introduced, conduct a 'paper trial' for the next round of reviews to test the schemes with no financial rewards or penalties attached;

WaterNSW's overarching comments are provided in Section 1 of this response.

Q3	***How should an incentive matrix be structured to ensure water businesses provide maximum customer value for least cost?***

IPART's incentive matrix provides a larger 'stick' to penalise falling performance than the 'carrot' to drive improved performance. We question this element of the proposed framework and suggest, if IPART is to apply financial incentives linked to grading, that less focus is on rewarding or penalising discrepancies between the businesses' self-assessments and IPART's own grading of a proposal.

Q4	***Should leading businesses receive financial incentives each time they achieve leading status? Should Sydney Water and Hunter Water receive financial incentives for achieving advanced status in the first round of reviews?***

WaterNSW considers that a more tailored approach to revenue setting is applied. We are not supportive of adopting a grading approach that is substantially similar to the ESCV''s PREMO model. We propose that a more tailored approach to regulation is adopted for the NSW water utilities in recognition of the relatively small number of firms with substantially different operating environments.

Q5	***Do you support a tiered regulatory approach based on the grade we assign a water business? If so, how effectively would our proposed approach tailor the regulatory approach to the different businesses we regulate?***

No. WaterNSW considers that a more tailored approach to revenue setting is applied that is not based on the ESCV grading approach in recognition of the relatively small number of firms with substantially different operating environments in NSW compared to Victoria.

If IPART adopts its approach to gradings in the Final Report, WaterNSW identifies a number of features in Section 1.1 of this response that IPART should consider, including the availability of alternative forms of price control for all businesses and a greater focus on reputational incentives, particularly for 'standard' proposals.

Q6	***Do you support a tiered use of ex post incentives to advanced and leading businesses?***

As per our response to Q5 above, while we don't support the approach to grading, if IPART adopts i gradings in the Final Report, WaterNSW identifies a number of features in Section 1.1 of this response that IPART should consider, including the availability of alternative forms of price control for all businesses and a greater focus on reputational incentives, particularly for 'standard' proposals.

We consider that reputational incentives are likely to be more effective than financial incentives in improving engagement, efficient and innovation in the NSW water sector.

Q7	***How effectively would our proposed use of ex post incentive schemes encourage cost reductions and improvements to service quality?***

WaterNSW generally supports the introduction of incentives that drive performance that is in the long term interests of customers. We consider that reputational incentives are likely to be more effective than financial incentives in improving engagement, efficient and innovation in the NSW water sector.

However, should IPART decide to introduce incentive schemes with financial rewards or penalties, we suggest that no financial incentives are applied until these schemes have been thoroughly tested and the likely impacts on outcomes established. That is, we suggest that 'paper trials' with no financial rewards or penalties are applied at the next round of reviews.

We encourage IPART to undertake a detailed consultation process to establish how any new incentive scheme may operate in isolation or in combination with other schemes, how the targets and rewards are set and what data are required for the scheme.

Q8	***Given the new 3-3-6 model, should we make changes to the way pricing and licensing reviews align?***

WaterNSW supports some alignment of the timelines for the pricing and licensing reviews, in recognition that the operating licence sets the minimum standards that are required to be in place for the regulatory pricing determination. Improvements to those minimum standards would be the subject of consultation with customers as part of the determination process.

Our response is provided in Section 5.2.

Q9	***How effectively would the proposed refinements to our cost pass-through criteria promote the long-term interests of customers?***

IPART's proposed the cost pass-through criteria are not sufficient to manage *intra-period* risk to warrant the move to longer (i.e. six-year) regulatory periods. Our detailed response to this matter is provided in Section 5.1.