

Reference No BN15/7167

Dr Peter Boxall  
Chairman  
Independent Pricing and Regulatory Tribunal  
PO Box K35  
Haymarket Post Shop NSW 1240

Dear Dr Boxall,

**Submission on IPART price review issues papers**

Thank you for the opportunity to make a submission on IPART's issues papers for the separate reviews of prices for WaterNSW, Sydney Water Corporation and Hunter Water Corporation, which have potential implications for metropolitan water planning and policy.

The following three key issues are highlighted in this letter, with further discussion on these and other issues included in the full submission attached:

- WaterNSW issues paper: capital expenditure forecast and links to the Metropolitan Water Plan
- Sydney Water and Hunter Water issues papers: pricing for 'wholesale' customers and implications for water industry competition
- Hunter Water issues paper: developer charges.

Firstly, the WaterNSW submission proposes significant capital expenditure to augment the Shoalhaven transfer system in the final year of the price path (\$103M), and also proposes to defer expenditure on constructing environmental flow release infrastructure until 2021 (\$98M). These proposals pre-empt the outcomes of the current review of the 2010 Metropolitan Water Plan, which is addressing options for the next supply augmentation and whether to implement environmental flow releases from Warragamba Dam. I anticipate the review will be finalised in early 2016.

As noted in IPART's Issues Paper for the review of prices for WaterNSW (greater Sydney area), the Metropolitan Water Plan is being reviewed in parallel with the Hawkesbury Nepean Valley Flood Management Review (flood review). DPI Water is working in close consultation with Infrastructure NSW and other agencies to integrate the reviews. The recommendations of the flood review may have significant implications for water supply security and the nature and timing of the next major water supply augmentation, as well as whether and when to introduce variable environmental flows from Warragamba Dam.

While the 2016 Metropolitan Water Plan is expected to include further actions to identify the preferred path for the next supply augmentation and make recommendations on implementing environmental flows, it is unlikely to trigger significant construction works for supply augmentation in the price determination period. Hence it would be premature to include major capital investment until the NSW Government has considered recommendations arising from both the flood review and the Metropolitan Water Plan in early 2016. I appreciate that the timing for these high-level, whole of government reviews does not align ideally with your price review timeline, but we will endeavour to provide you the best advice we can.

Secondly, I would like to highlight a number of potential issues arising from Sydney Water's proposal for changes to relevant charges for utilities licensed under the *Water Industry Competition Act 2006* (WIC Act) and IPART's response to this.

IPART's issues paper reflects a preferred approach for a new class of 'wholesale customers' with prices based on the 'retail price minus avoidable costs', consistent with maintaining postage stamp pricing. While the proposed approach is consistent with the pricing principles set out in the WIC Act access regime, it represents a significant departure from the current arrangements between Sydney Water and WIC licensees, where charges have been based on those for non-residential (commercial) customers. Industry stakeholders have expressed strong concerns that the proposed arrangements would significantly increase costs to licensees and impact the viability of recycling schemes.

On the question of how wholesale prices should be regulated, IPART has indicated a preference for determining wholesale price caps for a limited period, until a voluntary access undertaking is in place under the WIC Act. DPI Water is concerned that this would remove flexibility for parties to negotiate prices and create significant risks for existing schemes as Sydney Water cannot charge less than an IPART determined charge without the Treasurer's approval (as per s18(2) IPART Act).

Determining wholesale water prices based on the proposed approach could pre-empt wider policy discussion on competition and limit future opportunities. Given this, it may be premature for IPART to make a pricing decision without considering the implications of broader regulatory and market settings.

In its issues paper for Hunter Water, IPART has suggested a review of developer charges and backlog sewerage services for metropolitan water utilities to facilitate a consistent approach.

Although the scope of the proposed review is not discussed in the issues paper, there are strong links between developer charges and broader competition and access issues. Given this, there may be merit in a broader review that considers how regulatory settings can best support efficient investment decisions and competition outcomes. We are happy to discuss these concepts further with you.

Ideally, the review should occur before changes are made to price settings to avoid uncertainty and erosion of flexibility that could have significant implications for the fledgling water market made possible by the WIC Act.

More detail on these matters is included in the attached submission. I appreciate that IPART's Secretariat have already been engaging with DPI Water staff on these pricing reviews. For further information, please feel free to contact DPI Water's Acting Director Metropolitan Water, Cathy Cole by on telephone [REDACTED].

Yours sincerely

[REDACTED]

6/10/15

**Gavin Hanlon**

**Deputy Director General, DPI Water**

Att.



Department of  
Primary Industries

## **DPI Water Submission to IPART's reviews of prices for WaterNSW, Sydney Water Corporation and Hunter Water Corporation**

October 2015



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## Introduction

Water, wastewater and recycled water prices are closely linked to DPI Water's role in water planning and policy. The Metropolitan Water Plan for greater Sydney and the Lower Hunter Water Plan interact with prices by specifying timing and sequencing of investment in measures for drought and long-term water security. Likewise, prices can influence the ability of the water plans to deliver on their objectives by sending price signals for consumption and investment. It is important that these links are taken into consideration when setting prices to avoid perverse outcomes for water policy and planning.

DPI Water has identified a number of issues arising from the price reviews of WaterNSW (greater Sydney area), Sydney Water and Hunter Water that have potential implications for water planning and policy. These are discussed below.

### 1. Capital expenditure for WaterNSW

***WaterNSW Issues Paper, Question 8: Is WaterNSW's forecast capital expenditure program over the 2016 determination period prudent, taking into account drivers of this expenditure and service outcomes achieved?***

In its submission to the price review, WaterNSW proposed significant expenditure in the final year of the price path (\$103 million) to augment the supply system so that more water can be transferred from the Shoalhaven in future.

This project was part of the 2010 Metropolitan Water Plan (MWP) portfolio as a potential supply augmentation for further investigation, with a view to having an augmented system built and operational by around 2025, depending on factors such as future climate conditions, population growth and demand.<sup>1</sup>

The submission also proposes deferring investment of around \$98 million in works to enable environmental flows to be released from Warragamba dam until after the price determination period (to commence in 2021). IPART included part of this capital cost (around \$18 million) in the RAB at WaterNSW's last determination because it was anticipated that a flow regime would be included in the next iteration of the Metropolitan Water Plan (originally expected to be released in 2014), with construction to commence in 2015-16.

The 2010 MWP is currently under review, with a new plan due for release in 2016. As noted in IPART's Issues Paper, the MWP review is taking place in parallel with the Hawkesbury Nepean Valley Flood Management Review (flood review), and there are significant interactions between these reviews.

The flood review is examining a range of options to reduce flood risk downstream of Warragamba Dam, including options to raise the crest of the Warragamba Dam wall to create flood storage capacity or changing the operation of the existing Warragamba Dam to provide airspace to capture and store floodwaters through altered gate operation protocols or reducing full supply level (FSL) to create flood storage capacity.<sup>2</sup>

The outcomes of the flood review may significantly impact the MWP portfolio. Reducing FSL would reduce the water supply available for other uses and bring forward the timing of new supply. It would also have implications for the introduction of e-flows at Warragamba Dam, which also reduce system yield.

At this stage, no decision has been made regarding the nature or timing of the next supply augmentation. There are a number of potential augmentation options being assessed through the MWP analysis, including the Shoalhaven upgrade. A key part of the analysis for the Metropolitan Water Plan will be modelling the impact on supply system yield of the various flood mitigation options with and without

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<sup>1</sup> Metropolitan Water Plan (2010) p7

<sup>2</sup> Hawkesbury-Nepean Valley Flood Management Review Stage One Review Report, March 2014.  
[http://www.water.nsw.gov.au/\\_data/assets/pdf\\_file/0005/548987/key\\_hawkesbury-nepean-valley-flood-management-review-stageone-report.pdf](http://www.water.nsw.gov.au/_data/assets/pdf_file/0005/548987/key_hawkesbury-nepean-valley-flood-management-review-stageone-report.pdf)

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environmental flows, to determine the most cost-effective combination and sequencing of measures over time. This will support decisions about when a supply augmentation is needed and whether to introduce variable environmental flows from Warragamba.

Modelling to date indicates that construction of a new water supply is not likely to commence during the price determination period. However, expenditure will be needed on further investigation and analysis of new supply options to compare their costs and benefits and decide on a preferred path for supply augmentation in time for the next MWP review.

Given these circumstances, it would be premature at this stage, to include capital expenditure for construction of any major water supply augmentation or for environmental flow releases in the price determination for WaterNSW. Portfolio modelling is expected to be completed in late 2015 and may be available to help inform pricing decisions early in 2016.

## **2. Wholesale water pricing**

***Sydney Water Issues Paper, Question 59 What is the most appropriate methodology or basis for setting wholesale prices? (also in Hunter Water Issues Paper, Q36)***

***Sydney Water Issues Paper, Question 61: Should wholesale prices be regulated under the IWC Act, IPART's price determination or a combination of both? (also in Hunter Water Issues Paper, Q38)***

Sydney Water's proposal for new pricing arrangements for *Water Industry Competition Act 2006* (WIC Act) licensees who wish to access SWC infrastructure has significant implications for the fledgling water market that has been made possible by the WIC Act.

Sydney Water's submission proposes moving licensees from current arrangements (where they are treated like a non-residential customer) to new arrangements where prices are based on a 'retail minus avoidable costs' approach. While this is consistent with the pricing principles set out in the WIC Act access regime, including maintaining 'postage stamp pricing', it may significantly increase costs to licensees.

Industry has indicated that this would have a negative impact on the business case for investing in recycling schemes and would also affect the viability of existing WIC licensees. This could increase the risk of a licensee failing financially, potentially triggering a last resort event under the WIC Act

IPART's Issues Paper for SWC prices suggests that, ultimately, access by licensees to SWC infrastructure should be regulated under the WIC Act access regime. However, until the necessary arrangements are in place (e.g. a voluntary SWC access undertaking for its drinking water network), IPART favours regulating WIC licensees as a new class of 'wholesale customers' under the IPART price determination for SWC.

This would remove flexibility and create significant risks for industry as SWC cannot charge less than an IPART determined charge without the Treasurer's approval (s18(2) IPART Act).

In addition to the pricing proposal outlined in the IPART Issues Paper, there are a number of other factors that impact the ability of the water market to achieve efficient outcomes. These include the disparate developer charges applicable to conventional wastewater and recycling schemes and the recycled water pricing guidelines. These factors are already impacting investment decisions, making it difficult for recycling schemes to compete with conventional wastewater strategies, potentially leading to perverse outcomes.

### **The wider benefits of recycling schemes**

There are a number of potential benefits of recycled water schemes that do not appear to be recognised in the discussion of wholesale water prices.

These 'portfolio level' benefits can be achieved through an optimal mix of supply sources, including well targeted recycling schemes. While the benefits of individual schemes are small, as the industry grows the cumulative impact will increase the resilience of the supply system. Relative to a system that is wholly reliant on rain-fed supplies and desalination, a system that includes appropriate and well targeted investment in recycling schemes may achieve benefits such as:

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- greater climate resilience, thereby helping to defer or avoid costs associated with ‘lumpier’ infrastructure investments that may be required to ensure security of supply during drought
  - lower costs where residential developments are located far from existing sewage treatment plants
  - potential reduction in treatment costs to mitigate environmental impacts associated with conventional wastewater discharges
  - facilitating the release of land that is not included in the current public water utility servicing strategies, thereby improving housing supply and affordability
  - enhanced liveability, by supporting urban green space and drought proof recreation opportunities.

While the recycled water market is in its infancy now, it is important that regulatory and pricing settings do not preclude the realisation of economically efficient benefits over time.

The presence of new entrants in the market place has already had an influence on how developers and water utilities consider wastewater servicing strategies. This experience can help inform analysis of the impact of these schemes on water prices.

### **The scope of the market established by the WIC Act**

The IPART Issues Paper for Sydney Water appears to suggest that it is possible for a WIC licensee to enter the market and simply on-sell the services provided by SWC or HWC ‘without providing any additional services or improving overall system efficiency’ (p184).

However, this is not legally permissible under the Act. Under section 10(4)(d) of the current Act, a licensee is required to source sufficient quantities of water otherwise than from a public water utility. Thus, it is not possible simply to on-sell services provided by SWC etc. With the exception of the desalination plant (which itself is a new source of water), all WIC licensees are treating effluent, industrial wastewater, contaminated groundwater or stormwater onsite and reusing it.

While section 10(4)(d) of the Act will not remain once the Amending Act commences in mid 2016, its practical effect is preserved. This is because, under the reforms, it is not permissible to enter the market and sell services to customers otherwise than in connection with a scheme approved under the Act. In other words, there must be investment in new physical infrastructure: it is not possible just to ‘cherry pick’ existing customers from public water utilities and provide retail services to them (as would be possible under a ‘full retail contestability’ market model).

Provided a WIC licensee is doing some form of onsite recycling, it is possible for a WIC licensee to purchase drinking water from a public water utility and on-sell it to customers. In this case, it may be appropriate to remove the resulting ‘arbitrage opportunity’ with respect to drinking water. However, it is important to distinguish between the simple on-selling of drinking water and those services that value-add – such as the provision of recycled water and consequent reduced demand for drinking water.

As IPART recognises on p187, ‘where a wholesale customer performs a service in addition to or other than on-selling, such as recycled water, any avoidable costs apart from retail costs would not be reflected in the wholesale prices. In these instances, the prices may not be efficient for all wholesale customers.’ Given that all WIC licensees should fall into this category, it appears that the proposed option of setting price caps based on retail minus may not be efficient.

As noted earlier, the proposed ‘retail minus’ approach is likely to significantly impact the viability of the industry. Due to section 18(2) of the IPART Act, determining charges in the manner proposed may remove flexibility to adopt more tailored arrangements that differ from the proposed ‘retail minus’ approach.

By contrast, the WIC access regime may provide more flexibility since it is based on a ‘negotiate-arbitrate’ model. Under this approach, access seekers and incumbent utilities seek to agree terms of access. If they cannot agree, IPART arbitrates and – in doing so – will have regard for the pricing principles in section 41



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of the WIC Act. Before this stage however, access seekers and utilities can agree terms that are not constrained by these principles.

The reality is that there has been very limited interest in the access regime to date. The reasons for this have been explored as part of the NSW Government's Urban Water Regulation Review. Factors include the nature of the market, including its strong natural monopoly characteristics and economics of scale.

Other relevant factors include, for example, the 'line in the sand' approach used to estimate the value of the regulatory asset base. In its 2010 submission to the Productivity Commission, Sydney Water recognised that this may constitute a barrier to new entrants seeking to offer services in competition with incumbent utilities. Other settings, including those related to developer charges, also have an important bearing on the potential for efficient or inefficient outcomes, and the capacity of new entrants to compete with incumbent utilities.

In considering what pricing approach to adopt, it is important to note that the current market is not 'perfect' and seeking to facilitate 'efficient competition' in that context may not achieve the desired objective. Indeed, it may have the perverse result of removing the competition that has developed to date. A holistic approach to considering such factors is important to achieve intended outcomes and avoid unintended ones.

### 3. Developer charges review

***Hunter Water Issues Paper, Question 34: What are the merits of regulating the major service connection charge as part of the 2016 Determination as opposed to a later consolidated review of developer charges?***

IPART has suggested a review of developer charges and backlog sewerage services for metropolitan water utilities (p103 of the Hunter Water Issues Paper).

Developer charges for water and wastewater infrastructure have been set to zero, while developer charges for recycled water schemes remain in place. The costs of recycling schemes have to be recovered directly from the customers serviced by those schemes (in accordance with 'ring-fencing' requirements), whereas the cost of water and wastewater infrastructure is spread across the entire customer base (the benefits of which they do not receive). IPART has estimated that the impact on Sydney Water's customers of these transfers is in the order of \$27 per household per year.<sup>3</sup>

This disparity in cost recovery means that recycling schemes entail higher financial risks for public water utilities and can impact investment decisions and create perverse outcomes.

Along with developer charges and backlog sewerage services, there may also be merit in considering other issues that impact efficient competition. This could include examination of the impact of existing cross subsidies and other barriers to entry for third party providers, how avoidable costs are estimated and included in prices, recycled water pricing guidelines and other relevant issues.

Ideally, this should occur before changes are made to wholesale price settings to avoid a pricing decision that might pre-empt wider policy discussion on competition and limit future opportunities.

### 4. Long run marginal cost (LRMC)

***Hunter Water Issues Paper, Question 18: Should the water usage charge be set with reference to the long run marginal cost of water supply, or should greater weight be placed on customer preferences?***

IPART's Issues Paper includes questions on the role of long run marginal cost in setting water usage charges. Previously, IPART has set water usage charges for Sydney Water and for Hunter Water based on the average incremental cost of meeting water security objectives.

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<sup>3</sup> See IPART's final report for the 2012 SWC price determination, p180.

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For Sydney Water's last price review this reflected the costs of the second stage of the desalination plant (which was actually a drought response measure in the 2010 Metropolitan Water Plan, rather than a supply augmentation to meet future demand growth). The current review of the Metropolitan Water Plan is analysing potential new supply measures and will make recommendations about work required to identify a preferred option. As noted in Section 1 above, no decision has yet been made on the next supply augmentation for greater Sydney.

The LRMC for Hunter Water previously included the Tillegra Dam, which was subsequently rejected by the NSW Government. Analysis for the Lower Hunter Water Plan concluded that a water supply augmentation is not needed in the lower Hunter for around 20 years. Supply augmentation will be considered in the next review of the Lower Hunter Water Plan, due for completion in 2019-20.

This means that there is currently no decision on the next supply augmentation for either greater Sydney or the lower Hunter, making calculation of LRMC difficult. This is particularly true in the case of the lower Hunter, where identification of potential new supply options is at a very preliminary stage.

The next reviews of the Lower Hunter Water Plan and the Metropolitan Water Plan will provide more certainty about preferred supply augmentations for each region. This means that estimates of LRMC will be available for the next price determinations.

Despite the challenges in estimating LRMC for the agencies for this price review, some observations can be made with regard to LRMC and current usage charges. Given that augmentation has been deferred significantly in the lower Hunter, any estimate of LRMC will be lower than the value used for current prices, due to discounting. Sydney Water has calculated a range of possible LRMC for its submission to the price review, based on different assumptions about future demand and supply augmentation option. The current usage charge is higher than the most likely LRMC.

While LRMC provides a useful signal about the present and future costs of water security, it is not the only consideration when setting water charges. Other important factors to consider when setting water usage charges are:

- sending appropriate price signals for consumption and investment
- consistency with customer preference for price structure
- the need for prices to remain relatively stable to avoid price shocks and customer confusion.

LRMC can provide a useful reference point for water usage charges in that it provides a signal about the present and future costs of water supply to consumers. However, LRMC is characterised by the 'saw-tooth' pattern of periodic large investments in supply capacity, followed by a drop in the marginal cost of supply. If strictly applied to prices, this would result in significant price volatility following investment in supply augmentations. Customers in Sydney and the lower Hunter have indicated a preference for a higher usage component for water charges, so that they have greater control over their water bills. This needs to be balanced against economic considerations when setting prices.

Clearly, a degree of judgement is needed when deciding on price structures for water services. While LRMC can usefully inform this decision, factors such as sending appropriate price signals and customer preferences also play an important role.



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## 5. Cost pass-through mechanisms

*Hunter Water Issues Paper, Question 19: Should the 2016 Determination for Hunter Water include a cost pass-through mechanism for alternative sources of water in times of relative water scarcity? If so, for which measures and how should this flow through to water prices?*

Current pricing arrangements for Sydney Water allow the costs of operating the Sydney Desalination Plant to be passed through to customers.

IPART's Issues Paper for Hunter Water raises the question of applying a cost pass-through mechanism to Hunter Water's prices for drought response measures (eg water transfers from the Central Coast or additional groundwater pumping).

While acknowledging that cost pass-through mechanisms need to be used with care because they can reduce incentives for agencies to be efficient, MWD supports consideration of cost pass through mechanisms for drought measures included in the Metropolitan Water Plan and the Lower Hunter Water Plan that are triggered by falling dam storage levels.

While being broadly supportive of cost pass through mechanisms for drought measures specified in the water plans, they should be applied according to a set of criteria to avoid eroding incentives for efficient investment by the water agencies.

The drought measures set out in the water plans for greater Sydney and the lower Hunter are likely to meet the criteria for cost pass through mechanisms as follows:

- they are triggered by a clear event, which is defined in the water plans
- costs can be estimated and can therefore be specified in price determinations
- the trigger event is based on unlikely climatic events and therefore cannot be controlled or readily predicted by water agencies
- the cost pass through will result in more cost-reflective prices, because it will be based on actual costs, rather than probabilistic estimation
- costs can have a material impact.

From a water planning perspective, passing through the costs of drought measures may help reinforce their timely delivery according to the water plans and signal water scarcity to customers during these rare events.

Key measures in the current Lower Hunter Water Plan to which a cost pass through mechanism could apply are:

- Water transfers with the Central Coast (both directions) – currently agencies estimate volumes to be transferred and prices are based on SRMC of the higher cost agency, but revenue neutral
- Temporary desalination in extreme droughts – highly unlikely, so difficult to predict, material costs.

Sydney Water's submission proposes a change to the way the cost pass through mechanism is applied to recover operating costs of the Sydney Desalination Plant. DPI Water supports Sydney Water's proposal that fixed costs of operating the Sydney Desalination Plant continue to be passed through in fixed charges, but that additional variable costs be passed through to customers in the water usage charge as they are incurred.

This is more transparent than the current approach where all costs are recovered through fixed water service charges in the year after they are incurred. It also sends a more accurate price signal about costs and water scarcity. This approach may also be more flexible in the event that operating rules for the desalination plant change as a result of updated water plans during the course of the price determination.

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It would be IPART's role to determine the structure and application of any cost pass through mechanism for drought measures. However, the approach proposed for the Sydney Desalination Plant appears consistent with the principles of cost reflective pricing and sending appropriate price signals in times of water scarcity.

On a separate but related matter, the *Water Industry Competition Amendment (Review) Act 2014* includes new provisions relating to last resort providers, including arrangements to facilitate cost recovery. One option for recovering costs (the last in a hierarchy of options) is the ability to establish an 'industry contribution scheme' in accordance with section 57L of the Amending Act. That provision enables the Minister, in his or her discretion, to establish such a fund in order to recover the costs incurred by a last resort provider who is required to step in and take over the operations of a failed licensee.

Under section 57L(6)(d), a requirement on a public water utility to contribute to the fund is to be treated, for the purposes of section 16A of the IPART Act, as a requirement with which the utility must comply. To support this provision, it may be appropriate to include in the price determination a cost pass through mechanism to enable such costs (including operating costs) to be passed through to prices. This could help mitigate impacts on utilities where a last resort event occurs in the middle of a price path period.