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Independent Pricing and Regulatory Tribunal
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Submitted online at: <https://www.ipart.nsw.gov.au/Home/Contact-Us/Make-a-Submission>

To whom it may concern,

Review of wholesale prices for Sydney Water and Hunter Water

The City Of Sydney (the City) is pleased to make this submission to the Independent Pricing and Regulatory Tribunal's (IPART): Prices for wholesale water and sewerage services, Sydney Water Corporation and Hunter Water Corporation, Water – Draft Report.

This issue is extremely important to the City as it strives for a water sensitive city that achieves the following outcomes for its community:

- efficient use of potable water and reduced demands on the water and sewerage networks
- increased amenity and urban cooling through improved green space maintained by independent, climate resilient water supplies
- improved quality of local waterways through reduced pollution discharged via wastewater and stormwater outlets.

Water pricing plays a critical role in ensuring water sensitive city outcomes can be delivered. These outcomes are increasingly important as we respond to the demands of a growing population and changing climatic conditions including warmer temperatures and changing rainfall patterns.

The City's draft Environmental Strategy and Action Plan for 2016-2021 sets a target of zero increase in potable water use across the City of Sydney local government area from the baseline year of 2006, to be achieved through efficiency and water recycling even as our population and economy grows. The City is actively pursuing water recycling opportunities, especially in its urban renewal areas. These areas provide the density and scale required for efficient investment in recycled water infrastructure as well as allowing infrastructure provision to be planned and installed at the time of development, which is cheaper and more efficient than retrofitting.

The City supports the refinement in IPART's former approach to differentiate between recycled water production and on-selling water and sewerage services. However there are a number of practical implications of IPART's draft decisions that warrant further consideration before any determination is made.

The City acknowledges there are a number of limitations within current water policy settings including postage stamp pricing and developer charges. However, IPART

should recognise the public benefits of recycled water in its review of wholesale pricing. These benefits include increased water security through climate resilient water supplies, cost reductions to all consumers through deferral or avoidance of future upgrades to the Sydney Water network that would otherwise be required, potable water conservation and enhanced greening, urban cooling and liveability for communities.

Recognising these public benefits and introducing mechanisms to foster competition, innovation and investment in recycled water, in line with the objectives of the Water Industry Competition (WIC) Act, will bring long term benefits to the broader community even if short term costs are higher.

The City believes IPART's draft report and determination do not recognise these public benefits nor do they adequately address barriers to new entrants to the water sector. Key recommendations discussed in this submission include for IPART to:

- analyse the metering requirements and methodologies to calculate prices for different combinations of operating modes and the associated cost impacts on new entrants
- consider more competitive pricing during construction, commissioning and validation periods to reduce barriers to entry
- revise its price model to take into account the impacts of developer timeframes and rate of uptake of customers – not simply the costs of mature schemes
- initiate or recommend a broader review of the NSW water sector to promote effective and efficient competition. This review is critical to ensure the WIC market survives.

Detailed discussion on IPART's draft report and key recommendations follow.

The City welcomes the differentiation between recycled water production and on-selling water and sewerage services

The City welcomes the introduction of both the 'drinking water top-up for recycled water schemes' and 'recycled water plant waste disposal' services and their differentiation to on-selling services for pricing purposes. The City supports these services attracting non-residential prices, consistent with our previous submissions. This is because a recycled water scheme that collects sewage from customers for treatment and reuse and discharges a residual waste stream to Sydney Water's sewerage network is not on-selling Sydney Water's sewerage services. It is providing a different service offering to customers including recycled water and discharging a by-product of that service.

Applying retail-minus prices for untreated sewage collected from households and discharged to Sydney Water's sewerage system without treatment in a recycled water plant has some merit in principle. However, a number of practical implications arise that warrant further consideration. These issues will potentially result in unintended cost implications that could significantly hinder the financial viability of recycled water schemes. The consequence would be to create further barriers to entry for alternate service providers, hindering the growth of efficient competition in water services. IPART needs to resolve these practical implications prior to any determination.

Practical implications of draft decisions

1. Measuring recycled water plant waste disposal volumes

The draft report states that non-residential retail charges for recycled water plant waste disposal include a meter connection charge for each meter (based on meter size), a deemed usage charge, a sewerage usage charge (above a discharge allowance) and any applicable trade waste charges. It is not clear in the draft report how these charges would be applied. For example, which meters would be used and what discharge factors would apply?

For example, a recycled water scheme that does not provide potable water services direct to its customers, would only have one potable water meter for recycled water top-up. Therefore estimating a sewerage usage charge based on potable water top-up volumes would be inaccurate.

Also, the recycled water plant waste from any recycled water scheme would be considered a trade waste, i.e. no domestic sewage will be discharged from a recycled water scheme unless the recycled water plant is by-passed in which case this is considered separately. Hence the non-residential retail charges for recycled water plant waste disposal should be representative of the volume and load of trade waste discharged. It may also be argued that any by-passed flows could be considered non-residential wastewater which should attract non-residential retail prices rather than retail-minus wholesale prices.

Finally, for a recycled water scheme that does provide potable water services direct to customers, what discharge factor would be applied? Noting that these communities use far less potable water and reduce demands on both the potable water and sewerage networks. I.e. potable water meter sizes may not reflect the reduced demand on the potable water network and reduced usage of the sewerage network that these communities impose.

2. Measuring by-pass volumes

How would recycled water plant by-pass volumes be measured? Metering gravity sewer mains is not practical. Would sewage pumping station by-passes require metering? Will the application of retail-minus pricing on recycled water plant by-passed flows lead to inefficient operations? For example by treating sewage and discharging recycled water as a trade waste or by tankering by-passed flows to avoid the retail minus wholesale charges.

3. Commissioning and validation periods

During commissioning and validation periods of a recycled water plant, sewage is treated but recycled water is discharged. Hence a utility is not receiving income from recycled water but would be paying for discharge. How prices are applied during the commissioning and validation periods warrants further investigation. A period of dispensation may be appropriate to ensure excessive costs do not create a barrier to entry to recycled water projects that once operational are cheaper.

4. Implications of development timeframes

In new developments, recycled water schemes are sized for a future population which may take over 10 years to develop. Major capital investment is required upfront to connect developments to future recycled water infrastructure and to provide certainty to compel developers to invest in recycled water infrastructure within their buildings such as dual pipes, metering and connection points. This places alternate service providers at a significant disadvantage to Sydney Water, which can defray the up-front cost of individual new investments against a very large installed customer base.

In addition, there is a practical challenge of obtaining sufficient customers to successfully commission and operate a recycled water plant – based both on the fact that they contain biological processes that require a ‘critical mass’ of microorganisms to effectively treat sewage and also by the sizing of plant and equipment (i.e. large pumps cannot pump small flows, residence times in tanks are critical for biological treatment and odour management, etc.). This can take a

considerable period of time. Hence a 'critical mass' of connections will be required prior to the recycled water plant becoming operational, with collected sewage being by-passed until that 'critical mass' is reached.

Risk of development timeframes in relation to recycled water schemes are generally borne by private utilities, meaning that investment is required well before income generated by the sale of recycled water, with no guarantees on when these sales will be secured or even if development will proceed as planned.

Therefore the timing of when a private utility is considered a non-residential customer versus an on-seller of sewerage services is critical to the financial viability of the scheme. This issue warrants further consideration as it risks creating a barrier to entry that will threaten the viability of recycled water schemes. It may also lead to inefficient practices such as tankering by-passed sewage to avoid retail-minus charges during this initial start-up phase.

City of Sydney – worked example

The City has investigated the issue of whether a private utility that develops a new recycled water scheme to service a redevelopment area should be subject to retail-minus or non-residential pricing prior to the recycled water plant being commissioned.

This is an issue in situations where there is existing Sydney Water infrastructure with spare capacity that may be utilised in the short term, prior to commissioning and commercial operation of the recycled water plant.

A number of assumptions are relevant to working out the exact impact of the choice of a pricing method during this initial period – e.g. timing of capital works, plant operation start date, number of wastewater connections at start, timing of development and subsequent timing of additional wastewater connections.

The City prepared a preliminary business case model for the Green Square Water Reuse Stage 2 project. For this business model, the City assumed that waste water services are priced using non-residential trade waste prices during the initial period of the scheme i.e. prior to completion of recycled water plant and reticulation works. Based on a 3 year period prior to commercial operation, and based on the City's previous modelling, a change in method of charging from trade waste to retail-minus would have a negative impact on the scheme economics in the order of 7.5% to 30% of scheme capital cost (the range is a function of the assumed level of initial connections). This equates to a negative impact on NPV of \$0.5m to \$2.0m for a scheme with a notional \$8m capital cost. That would imply a significant adverse effect on the commercial viability of the scheme.

The City would be agreeable to discuss the details of its assessment with IPART on a confidential basis.

5. Scheme-specific price reviews

Facilitation costs are an important part of understanding when it makes financial sense to implement a recycled water scheme. However, seeking a scheme specific review by IPART would be lengthy. This would create uncertainty and risk as investment decisions would be required to align with development timeframes and it may not be practical to wait for a scheme specific determination.

In addition, calculation of facilitation costs relies on provision of information from the incumbent monopoly provider to calculate augmentation costs and savings, promoting monopoly power. How appropriate for this purpose is Sydney Water's existing costing methodology for calculating augmentation costs?

6. Existing and new wholesale arrangements

For an existing scheme, a wholesale customer or service provider may seek a scheme specific determination by IPART if they cannot reach agreement on price. There should also be the option to seek system-wide prices as for a new scheme.

7. Cost to administrate a price determination outweighs the benefits

As per our previous submission, the City believes the size of the issue that this review seeks to solve is disproportionately smaller than the effort required to develop and administer the proposed solution. As set out on p.20 of IPART's Draft Report there are currently ten WIC Act licensed schemes in Sydney Water's area of operations and that these current schemes would *eventually* provide services to over 10,000 residential lots in Sydney Water's area of operations (this compares with Sydney Water's *current* residential customer base of about 1.9 million customers).

Limitations of the mature scheme model

As discussed, Sydney Water has a huge installed consumer base developed over a period of more than 100 years. It can smooth the costs of investing in scheme augmentations and new schemes (which might be 1 to 2 per cent of the total installed customer base in any given year) against a revenue stream which is already 98 per cent secure. Consequently Sydney Water has access to loan funding at an almost no risk premium.

By contrast, a new player in the metropolitan water market does not have ready access to an enormous installed base. In the worst case scenario, the new player has to defray delays in receiving revenue from customers as they connect gradually over 10 to 20 years for a single scheme. Thus the costs are not those incurred in a mature fully connected scheme, which is the assumption used by IPART in its modelling. In other cases, a new player may be able to defray revenue delays over a small number of schemes, all of them in development and not yet fully mature. The risk premiums are inevitably significantly higher and in some cases may be prohibitive. This seriously impedes the development of competitive services, even where an operator has an inherently lower-cost operating model than that experienced by Sydney Water. Therefore IPART needs to include these timing impacts and limitations in its modelling to ensure they do not create insurmountable barriers to entry for private water utilities.

Recycled water provides public benefits

Facilitating a pathway to effective competition and cost-effective service delivery needs to look at long term customer benefits, not just short term customer impacts. The benefits of increased competition in wastewater and recycled water will be enjoyed by all consumers. For example recycled water schemes:

- provide climate resilient water supplies, independent of rainfall, that conserve potable water and increase security of supply for the greater Sydney region. The City notes that fixed costs of Sydney Desalination Plant are covered by all of Sydney Water's customer base on an ongoing basis and in shutdown mode these costs represent about \$94 of a typical annual residential bill. In IPART's recent price determination for Sydney Water from 1 July 2016 it introduced a \$0.12/kL charge applicable when the Sydney Desalination Plant is switched on,

to signal water scarcity to consumers. As recycled water schemes also increase water security for all customers, they should also enjoy similar financial contributions to be covered by the broader customer base, consistent with the current postage stamp pricing policy. For example, they could receive a payment of up to \$0.12/kL to avoid switching on the Sydney Desalination Plant. This would result in cost savings for all Sydney Water customers while providing security of supply.

- reduce demands on (and operation and maintenance costs of) existing water and sewerage networks and will prevent or delay some future augmentation of these networks.
- are essential to combating urban heat stress, one of the City's biggest climate change threats. Recycled water can reduce urban heat by drought proofing and enhancing green spaces, increasing canopy cover and improving the amenity, biodiversity and liveability of our city. It is well documented that communities linked to green spaces enjoy improved mental and physical wellbeing. With increasing population and climate change, water demand will continue to increase.

The City urges IPART to recognise these public benefits to ensure that competition, innovation and investment in recycled water continue to grow, in line with the objectives of the WIC Act. A broader review is required and discussed overleaf.

Fostering competition in other essential services sectors

A number of different regulatory approaches have been applied to foster entry of new players and increase competition and innovation in other essential service sectors – notably the electricity and telecommunications sectors.

For example, in relation to electricity markets, the Australian Energy Market Commission has introduced many innovations over time with the aim of encouraging innovation and competition in electricity supply services and avoiding costly network upgrades.

These innovations include:

- regulatory investment tests for transmission and distribution (so networks must consider provision of non-network solutions as alternatives to network infrastructure upgrades)
- network support payments for non-network solution providers that defer growth in peak demand (and hence defer network upgrades). The benefit is deferral or avoidance of upgrade costs (and hence long term consumer benefits), a consideration that is equally applicable in the water and sewerage sector.

In the communications sector, regulators have repeatedly intervened to stimulate greater competitiveness in what should be a multi-player market (for example, for mobile telephony services) but is typically dominated by a single long-established provider. This includes setting maximum prices for interconnection services between the dominant network and other emerging players.

While there are many differences in individual regulations, there are also many issues in common to other essential service sectors that also apply to the water industry. These include:

- ensuring that future services are both reliable and cost effective
- counteracting the market power of large-scale monopoly service providers
- overcoming the technical and commercial barriers to competition that are typical in long-established vertically integrated businesses with limited transparency.

Therefore as for other essential services sectors, it is vital to recognise the long-term public benefits of greater innovation and competition when setting prices to encourage competition in the water sector.

A broader review into the NSW water sector would assist in achieving these goals.

Separate narrowly-focussed reviews will not facilitate competition in the water industry

The City notes that IPART is conducting a number of separate reviews into water pricing including:

- the recent review of water, sewerage and stormwater prices for Sydney Water from 1 July 2016
- this wholesale pricing review for Sydney Water and Hunter Water
- the future full review of its approach to regulating recycled water scheduled for 2017-18.

In addition, matters relating to levels of service and the obligations to service will be captured in the future review of Hunter Water's operating license to apply from July 2017. Sydney Water's operating license will not be reviewed again until 2020-21.

The fact that several separate reviews are occurring at different times demonstrates the lack of integrated water cycle management that currently exists. Separate narrow reviews do not allow interrelated water issues to be considered in a broader context to ensure efficient investment outcomes prevail.

For example, in IPART's recent Draft Report: Review of Prices for Sydney Water, there were references to liveable cities, integrated water cycle management and avoided costs, however discussion on these topics was deferred until IPART's 2017-18 review of recycled water. Similarly, this wholesale prices review does not include the supply of wholesale recycled water services. Nor does it consider the effect of developer charges, despite the significant impact developer charges have on investment decisions.

Developer charges for water, sewerage and stormwater were set to zero in 2008 while developer charges for recycled water schemes remain in place. This means the costs of recycled water schemes have to be recovered directly from customers serviced by those schemes while the cost of water and sewerage infrastructure is spread across the entire customer base. As discussed, beneficiaries of recycled water are the broader customer base, not just those that receive recycled water product.

The current disparity in cost recovery creates barriers to recycled water schemes being developed. IPART noted in its discussion paper that the combined effect of postage stamp pricing and zero developer charges gives incumbent utilities a competitive advantage over competitors. Yet developer charges will not be considered until IPART's 2017-18 review of recycled water.

A broader more holistic review into the NSW water sector is required

The City endorses IPART's finding that 'all unnecessary impediments to competition in the water industry are removed and that, where necessary, policy and regulatory settings should be adjusted. We also agree that competition in the water industry extends beyond wholesale pricing.' A review into competition in the water industry and barriers to entry for water recycling should be undertaken encompassing:

- the terms of the IPART Act and WIC Act
- the impacts of current pricing methodologies under the IPART Act (including postage stamp pricing) and whether they are inhibiting the entry of water recycling services, competition and efficient delivery of wholesale services,

noting the review would need to consider equity and efficiency impacts of changes to existing arrangements

- whether provision should be made for utilities to provide water recycling services through wholesale pricing, and its potential impacts on competition and efficient uptake of water recycling schemes
- whether a stand-alone scheme for private sector water recycling provision should be established outside wholesale pricing determinations, recognising that there are significant barriers to entry and public benefits from a more competitive water supply industry and enhanced water security and liveability from water recycling services which are currently not incorporated in prices. The review should consider the case for a scheme and potential design options; for example, the scheme could be analogous to the Renewable Energy Target which was established to address similar issues, under which there is a retailer obligation to source a portion of their total sales from recycling water schemes.

Conclusion

While the City supports the refinement in IPART's position to differentiate between recycled water production and on-selling of water and sewerage services, there are a number of practical implications arising from its draft report that need further consideration to ensure that the WIC market survives.

A broad review of the NSW water sector is required to ensure that the public benefits of recycled water are recognised and policy and regulatory settings are adjusted to ensure increased competition in the NSW water sector.

We would welcome the opportunity to discuss these important issues with you further. To arrange a meeting or for any questions in relation to this submission, please contact Lisa Currie, Manager Water Strategy by telephone on [REDACTED] or by email at [REDACTED]

Yours sincerely

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