Department of
Infrastructure, Planning and Natural Resources

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Our ref: Y05/2249

Mr J Cox
Chief Executive Officer
Independent Pricing and Regulatory Tribunal
PO Box Q290
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Dear Mr Cox

I write in relation to the Tribunal's Draft Determination on Prices of Water Supply, Wastewater and Stormwater services.

Please find attached a submission from the Department in response to the Draft Determination. I apologise for the delay in providing this submission to the Tribunal.

The submission highlights the importance of price reform to facilitate optimal water conservation and recycling. Officers of the Department would be happy to meet with Tribunal staff to discuss these issues further.

Should you have any questions in relation to the attached, please call Katy Brady on 9228 6563.

Yours sincerely

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Sam Haddad
Acting Director-General
1/8.

DIPNR submission to IPART's Draft Price Determination for SWC and SCA

The Department of Infrastructure Planning and Natural Resources (DIPNR) supports IPART's proposal to:

- Set a higher water usage charge in line with long run marginal cost,
- Introduce a higher two-tiered variable usage charge and a lower fixed service charge for residential customers, so as to provide a strong conservation signal,
- Increase the wholesale volumetric charge relative to the fixed charge, and
- *Require agencies to report annually against output measures.*

Further to our original submission, the Department wishes to reiterate our support for price reform and make additional points regarding a number of matters – outlined below.

Support for pricing as a conservation tool, combined with measures to mitigate price impacts

As noted in the Department's original submission, we reiterate our support for pricing as a cost effective means to reduce water demand. In relation to measures to mitigate the impacts of price rises on large low-income families, we support the use of complementary measures to achieve this objective – rather than reliance on price structures alone to mitigate impacts. As noted in our original submission, where price is not deployed as an effective conservation tool (for example if price structures are adjusted significantly so as to avoid impacts on high water using households), pressure on water supplies will likely increase, necessitating additional investment to balance supply and demand. This would result in higher water prices for all consumers – including those least able to pay. Such an outcome can be avoided through the use of complementary measures designed to minimise impacts of price reform on large households with high non-discretionary demand.

There is strong potential to realise synergies between measures to mitigate price impacts and measures that can help slow depletion rates during the current drought (eg enhanced water savings programs for commercial and residential customers). DIPNR is aware of further work undertaken by Sydney Water and the Department of Energy Utilities and Sustainability to develop measures that mitigate price impacts and also deliver water savings. DIPNR supports this approach.

Estimate of long run marginal cost needs to take account of 'portfolio' issues

DIPNR supports the use of long run marginal cost (LRMC) to inform the setting of the water usage charge. Outlined below for the Tribunal's consideration is an issue that may be relevant to the estimation of LRMC and thus the water usage charge.

When considering the cost of measures to balance supply and demand, it is important to have regard for what can be described as 'portfolio' level issues. For example, when storages are full or spilling, it will be cheapest to use rain fed supply from the storages rather than more costly options. This is a consideration when estimating the levelised cost of individual measures. While levelised cost is often estimated on the basis that options are run continuously, this may not be an economically efficient approach when dams are full or close to full. As noted in the recent report entitled 'Planning for Desalination', if the operational *capacity of water supply systems is reduced* (relative to continuous or close to continuous operation), 'the unit cost of water would rise substantially' (p3).

The operating configuration of water supply options is (among other things) influenced by the portfolio of water supply options available at any given point in time. This is because a higher unit cost will need to be applied in order to earn a return on capital investment. This issue may also have implications for estimating the long run marginal cost of balancing supply and demand. As such, further consideration of this issue by the Tribunal may be warranted in order to ensure that the water usage charge is set at an appropriate level.

Treatment of demand management expenditure

In relation to the treatment of demand management (DM) expenditure, it is important to ensure that IPART's pricing model supports least cost outcomes, consistent with the Metropolitan Water Plan. While this is particularly important in the context of the current drought, removing barriers to DM is also important in the longer term. The potential for changes to industry structure suggests that it is particularly important to ensure that regulatory settings (including pricing models) are in place to facilitate rather than potentially hinder investment in DM.

From an economic perspective, water saving measures have strong potential to help deliver least cost outcomes by deferring or avoiding the need for more costly augmentation options. Such options can also reduce user costs and reduce external impacts of water and wastewater service provision – in some cases resulting in negative economic costs (ie where costs are outweighed by benefits). As such, there are strong reasons to facilitate their uptake. However from a financial perspective, the pricing model has the potential to create perverse outcomes by treating investment in 'engineering options' differently to investment in demand management.

The Draft Determination proposes to depreciate new capital expenditure over 100 years (even where plant lives are much shorter than this). By contrast, DM expenditure is classed as operating expenditure and passed through to customers via water charges in the year in which the expenditure is incurred. That is, DM expenditure is not 'amortised' (spread over a number of years) even though such expenditure will positively impact the supply demand balance well beyond the year in which the expenditure is incurred (even once due regard is had for savings 'decay' rates). In addition, investment in DM is not considered part of the regulatory asset base on which a return can be earned – in contrast to capital expenditure on supply side options.

This differential treatment of supply and demand side expenditure has the potential to lead to perverse outcomes which run counter to the Metropolitan Water Plan's objective of meeting Sydney's water needs at least economic cost. For example, such an approach would mean that significant expenditure on DM could lead to a significant bill increase – if all the expenditure must be recovered in the year in which it is incurred. By contrast, capital expenditure has comparatively lower impact on bills because of the impact of amortisation, despite their often significant economic costs.

While it is appropriate to depreciate assets over time, it is important that this not be applied in a way that prejudices investment in DM. A level playing field is required. The current approach of depreciating capital investment over 100 years is appropriate where assets have very long lives – eg trunk mains. However, more recent options for meeting needs – including both supply and demand side measures – warrant a more flexible approach to depreciation and the definition of the regulatory asset base (ie to reflect more accurately the economic lives of assets and the ongoing impact of DM expenditure on the supply demand balance).

DIPNR is interested to work with IPART to develop an approach that avoids perverse outcomes and supports the uptake of DM. While the regulatory settings for electricity are different to water, IPART's July 2004 Determination for electricity distribution network service providers (DNSPs) provides a precedent for adopting measures to facilitate DM investment. The measures adopted in that Determination were in part a response to the high cost of rising peak electricity demand, emerging network constraints, declining network infrastructure utilisation rates, and the significant potential for cost effective demand management.

The current drought is analogous in several respects, including:

- the high cost of ensuring security of water supply in the context of resource constraints (the current drought) is in some respects similar to the high cost of providing electricity during peak periods;
- there are short and long run constraints in the water network: that is, the current low volumes in our storages due to drought and, longer term, the need to balance supply and demand in the face of population growth and projected climate change impacts;
- further investment in DM would reduce the probability of low utilisation rates resulting from reliance on supply side measures as the key means to respond to the drought;
- as with the electricity sector, there remains considerable untapped DM potential in the water sector which could deliver multiple benefits.

While the optimal uptake of DM is important for the longer term, it is particularly opportune - in the context of the current drought - to seek to address and remove institutional barriers to DM. DIPNR would be happy to work with the Tribunal and others to progress consideration of this issue.

Recycled water prices

As you know, DIPNR has been working with consultants to identify the potential for water recycling to make a greater contribution to the supply demand balance, as outlined in the Metro Water Plan. Investigations to date show that there is strong potential but that costs vary significantly – from projects which are cost effective in their own right to those which require support in order to be feasible. As WSAA and others have highlighted, uptake of recycling has been limited to date due to the low cost of alternatives, amongst other things.

Greater uptake of water recycling will be important in order to balance future demand and supply, protect river health, reduce the impact of future droughts and mitigate the projected impacts of climate change. As such, DIPNR considers that, where projects can augment supply in a way that accords with least cost outcomes, it may be appropriate for a portion of the project costs to be recovered through water usage charges. Such an approach could put recycled water uptake on a more sustainable and integrated footing. DIPNR would be happy to discuss the findings of these investigations with IPART as it prepares it determination on recycled water prices.