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18 April 2017

Professor Jane Doolan  
Commissioner  
National Water Reform inquiry  
Productivity Commission  
GPO Box 1428  
Canberra City ACT 2601

Dear Professor Doolan,

### **SUBMISSION TO NATIONAL WATER REFORM INQUIRY**

I write on behalf of the Tribunal. Thank you for the opportunity to provide a submission to the Productivity Commission's National Water Reform inquiry.

IPART is the independent economic regulator in New South Wales. We determine the maximum prices to be charged for declared government monopoly services provided by certain water utilities. We also make recommendations to Government about public utility and private sector licences and monitor compliance. Our role and experience makes us well-placed to contribute to your review.

The Tribunal considers there is scope to improve outcomes for customers by opening water markets to competition, and allowing competition to drive costs lower and improve services for customers. In the absence of competition, independent economic regulation is important for ensuring efficient services and pricing in mainly monopoly industries such as water.

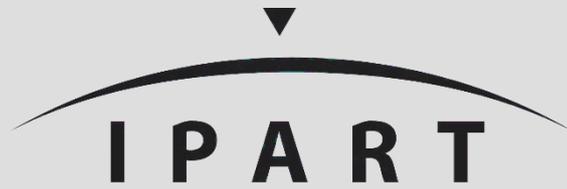
The Tribunal has asked that I forward the attached submission on its behalf. It addresses the questions raised in the Issues Paper most pertinent to IPART's current role and responsibilities.

IPART's contact officer for this submission is Matthew Edgerton, Executive Director, Water

Yours sincerely

**Hugo Härmstorf**  
Chief Executive Officer





Independent Pricing and Regulatory Tribunal  
New South Wales

# IPART submission to the Productivity Commission's Issues Paper on National Water Reform

Submission to Issues Paper  
Water

April 2017



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# 1 Introduction

The Independent Pricing and Regulatory Tribunal (IPART) is the independent economic regulator in New South Wales (NSW). We determine the maximum prices to be charged for declared government monopoly services provided by water utilities. We also make recommendations to Government about public and private water utility licences and monitor compliance with these licences. Our role and experience makes us well-placed to contribute to your review.

There has been substantial reform across water markets in NSW since the COAG's initial water reform framework was introduced in 1994 and the National Water Initiative (NWI) was agreed to in 2004. This includes:

- ▼ **the corporatisation of major water utilities**, leading to clearer delineation of roles, responsibilities and objectives of water utilities relative to government agencies, and hence a greater focus on service delivery
- ▼ **the establishment of independent economic regulation**, comprising price and service regulation of major water utilities
- ▼ **more cost-reflective pricing**, including prices that reflect the efficient costs of service delivery and consumption based pricing
- ▼ **the separation of water entitlements from land ownership**, and the establishment of a cap and trade water entitlement system to ensure the efficient use and distribution of water resources
- ▼ **separate, cost-reflective charges for bulk water storage and delivery (WaterNSW Rural) and water management (the Water Administration Ministerial Corporation)**
- ▼ **the emergence of new entrants and competition in the provision of water and wastewater services in the urban water market**, under the *NSW Water Industry Competition Act 2006* (the WIC Act)
  - competition, or even the threat of competition, has resulted in innovative new service offerings and solutions from both incumbents and new entrants.

We consider that the principles set out in the NWI are sound and that the agreement provides a clear guide for increasing the productivity and efficiency of Australia's water use, the need to service rural and urban communities, and to ensure the health of river and groundwater systems.

However, whilst we consider that NSW has made progress in applying the principles and achieving the objectives and outcomes of the NWI, we recognise that:

- ▼ reform (where it results in net gains) should continue in line with the objectives of the NWI, and
- ▼ it is important to ensure that the principles are adopted and applied by all jurisdictions in Australia.

## Opportunities for enhancing efficiency in provision of rural and urban water services

In general terms, we consider that efficiency in the provision of rural and urban water services can be enhanced through more widespread application of independent economic regulation of monopoly providers of water services, improved governance and regulation of state-owned water utilities, and measures to enhance the potential for competition in the water market. These measures are outlined below.

### More widespread application of independent economic regulation of monopoly providers of water services

- ▼ Independent economic regulation of monopoly water utilities is absent in several jurisdictions within Australia, which is a significant impediment to efficiency gains.
  - Independent economic regulation, as applied by IPART to major water utilities in NSW, can ensure prices reflect efficient costs, provide incentives for ongoing efficiency gains, enhance investment certainty and remove barriers to new entry and competition.
- ▼ Independent economic regulation should aim to simulate the pressures of competition in monopoly environments by setting prices that reflect efficient costs. To achieve this objective, IPART applies incentive regulation, which works in three key ways:
  - i) By setting maximum prices, we aim to limit the ability of monopolies to exercise market power.
  - ii) By setting prices to reflect efficient costs and allowing the business to keep savings or losses it makes over a regulatory period relative to the costs we allow for when we set its maximum prices, we create incentives for the water utility (ie, its owners and managers) to:
    - invest prudently and efficiently
    - minimise costs and innovate.
  - iii) By setting consumption-based, cost-reflective prices, we encourage consumers to use services efficiently.
- ▼ As an independent economic regulator, IPART also administers, audits compliance with, and reviews operating licences for water utilities in NSW<sup>1</sup> to protect consumers, and ensure service quality and reliable supply.

### Improved governance and regulation of state-owned water utilities

- ▼ Shareholders of state-owned water utilities should be active in driving performance and efficiency gains, as they are in privately owned firms.
- ▼ Non-commercial objectives or requirements imposed on state-owned water utilities should be clearly defined and funded; and non-commercial services should be contestable where possible, rather than automatically imposed on or granted to state-owned water utilities.
- ▼ State-owned water utilities should be subject to best practice governance requirements.

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<sup>1</sup> IPART's licensing role relates to Sydney Water, Hunter Water, WaterNSW and private water utilities licensed under the *Water Industry Competition Act 2006*.

- ▼ Environmental and other regulatory requirements imposed on water utilities should be subject to best practice regulatory principles, including consideration of market based instruments, such as offset or cap and trade pollutant schemes for specific waterways (eg, the Hunter River Salinity Trading Scheme, which aims to manage saline water discharges into the Hunter River more efficiently). Such regulatory instruments can promote innovation in achieving environmental objectives, and allow environmental objectives to be met at least cost.

### **Measures to enhance the potential for competition and efficient new entry in the water market.**

- ▼ Competition or even the threat of competition can lead to lower prices, more innovation, better services and greater security of supply.
- ▼ In NSW, the *Water Industry Competition Act 2006* (the WIC Act), which includes a licensing regime and a third party access regime, has facilitated new entry and competition in the provision of urban water and wastewater services.
  - However, to date, this has occurred through the licensing rather than the third-party access regime. That is, new entrants have been licensed, but then generally purchased 'wholesale' water and/or sewerage services from Sydney Water or Hunter Water (see point below) rather than access to monopoly infrastructure. The WIC Act licensees have used these wholesale services to supply water and/or sewerage services to end-use (or retail) customers, in competition with Sydney Water and Hunter Water.
- ▼ To further enhance the potential for competition:
  - IPART is currently reviewing the prices that Sydney Water and Hunter Water can charge for wholesale water and sewerage services. Our Supplementary Draft Report, released in March, includes a draft pricing framework that aims to facilitate efficient new entry to the urban water market for the benefit of end-use customers over time.<sup>2</sup>
  - IPART is also currently reviewing Hunter Water's operating licence and has made a draft recommendation<sup>3</sup> to require Hunter Water to provide services to wholesale customers.
- ▼ Other reforms that could enhance the potential for efficient new entry and competition in the provision of urban water services include:
  - the measures listed above - ie, independent economic regulation and improved governance and regulation of state-owned water utilities
  - providing opportunities for the market to inform strategic planning decisions (rather than relying only on incumbent providers), and ensuring that incumbent providers and new entrants are subject to the same rights, opportunities and obligations
  - ensuring incumbent water utilities' prices and developer charges are cost-reflective
  - ensuring there is a suitable water utility licensing, third-party access regime and/or wholesale regime for each major urban water market and, where applicable, examining opportunities to expand and enhance these regimes to facilitate efficient new entry and competition for the benefit of water customers, and

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<sup>2</sup> IPART, *Prices for wholesale water and sewerage services – Sydney Water Corporation and Hunter Water Corporation – Supplementary Draft Report*, March 2017, <https://www.ipart.nsw.gov.au/Home/Industries/Water/Reviews/Metro-Pricing/Wholesale-pricing-for-Sydney-Water-and-Hunter-Water?qDh=2>.

<sup>3</sup> For the review of Operating Licences for water utilities, IPART provides recommendations to the Minister for Lands and Water, rather than determining licence conditions.

- 
- developing nationally consistent principles and regulatory frameworks in relation to competition in water markets.

The remainder of this submission addresses the specific questions raised in the Issues Paper most pertinent to IPART's current role and responsibilities, including the issues listed above. The submission does not attempt to address every question.

## 2 Response to specific questions in the Issues Paper

### 2.1 Rural water

The sections below address the specific questions raised in the Issues Paper on **rural water** most relevant to IPART's current role and responsibilities.

Since the COAG's initial water reform framework was introduced in 1994, NSW has made considerable progress towards more efficient and sustainable water management in the rural water sector. For example, economic efficiency and environmental sustainability of water management has been improved as a result of:

- ▼ separation of water property rights and land titles
- ▼ water sharing plans being developed for rivers and groundwater systems across NSW following the introduction of the *Water Management Act 2000* (NSW)<sup>4</sup>, and
- ▼ introduction of water markets, where water allocations can be traded between water users.

#### Issues Paper Question 26

What role should independent economic regulators play in the regulation of rural water services?

#### **Independent economic regulators should play a role in the regulation of rural water services through pricing and licensing functions**

Where there is monopoly power in the provision of rural water services, independent economic regulation is important in achieving a number of the NWI's objectives, including promoting the efficient and sustainable use of water resources and water infrastructure; ensuring that infrastructure operators are financially viable; providing sufficient revenue for service delivery; and facilitating the functioning of water markets.

Independent price regulation is important in ensuring prices reflect efficient costs, consumers are protected from the potential abuse of monopoly power, and monopoly utilities have an incentive to pursue efficiency gains.

Where there is monopoly power, independent economic regulators can aim to simulate the pressures of competition by:

- ▼ setting water prices that reflect efficient costs, and providing incentives for ongoing efficiency savings, and

<sup>4</sup> Department of Primary Industries – Water, *Water sharing plans*, <http://www.water.nsw.gov.au/water-management/water-sharing>, accessed 12 April 2017.

- ▼ regulating service standards and performance (in a manner consistent with best practice regulatory principles).

### **Independent economic regulation is important**

IPART is an independent regulator that determines prices at arm's length from the Government. This provides greater certainty for regulated utilities, their shareholders, their customers, and other stakeholders.

However, independent economic regulation is not present in all water markets and jurisdictions in Australia. For example, in some jurisdictions, the regulator only has an advisory (rather than determination) or significantly constrained role.

We also note that any inter-jurisdictional providers of monopoly water services, such as the Murray-Darling Basin Authority (MDBA), should also be subject to independent regulatory oversight.

We consider that independent economic regulation is an important precondition of the efficient supply of bulk water services, where there is monopoly power.

### **IPART's role in regulating rural water prices**

IPART's water pricing role is set out under the NSW *Independent Pricing and Regulatory Tribunal Act 1992* (the IPART Act). We are also accredited under the Commonwealth's *Water Charge (Infrastructure) Rules 2010* (WCIR) to regulate WaterNSW's bulk water prices in NSW's Murray-Darling Basin valleys.

IPART is responsible for regulating prices and reviewing the pricing policies of seven water utilities across NSW. These cover metropolitan, regional and rural areas. The three most relevant to rural/regional NSW are:

- ▼ **WaterNSW for its rural bulk water services**
  - WaterNSW's services relate to the storage and supply of water from dams. WaterNSW maintains and operates dams for both the Sydney metropolitan area, and for rural and regional areas of the state. We undertake separate price reviews for each of these two distinct areas, and are currently undertaking a review of WaterNSW's prices for rural bulk water services from 1 July 2017. We are reviewing WaterNSW's prices in the Murray-Darling Basin under the WCIR, under accreditation from the ACCC; and WaterNSW's prices in its coastal valleys under the IPART Act.
- ▼ **The Water Administration Ministerial Corporation (WAMC) for its water management services**
  - WAMC, or DPI Water on its behalf, undertakes water management activities for regulated rivers, unregulated rivers and groundwater sources. These water management activities are aimed at ensuring the sustainable management of water resources and protecting the property rights of water entitlement holders. WAMC's activities include developing and ensuring compliance with water sharing plans.
- ▼ **Essential Energy for its urban water services in Broken Hill**

- Essential Energy's water business, Essential Water, provides water and sewerage services to Broken Hill.

In regulating prices under the IPART Act, we are required to have regard to a number of matters. These are listed under section 15 of the IPART Act and include:

- ▼ protecting consumers from unreasonable price increases or inefficient practices
- ▼ ensuring monopoly service providers earn a fair rate of return on prudent and efficient investments
- ▼ encouraging regulated service providers to improve their economic efficiency and maintain or improve their service quality
- ▼ encouraging competition where possible
- ▼ ensuring that regulated service providers remain financially viable, and
- ▼ maintaining ecologically sustainable development and protection of the environment.

To set water prices, we regularly conduct open and transparent price reviews for each water utility. Two key elements in our pricing reviews are actively engaging with consumers, and undertaking research and analysis, seeking expert advice where necessary.

Using the best available information, **our usual approach is to set prices to reflect the efficient cost of providing water services to customers.** This provides sufficient revenue to water utilities to deliver their services to their customers efficiently, while complying with their broader regulatory framework, and ensures the efficient use of water.

### **IPART's water licensing role**

IPART recommends the terms and conditions of licences, and audits and reports on licence compliance, for three State-owned water utilities (WaterNSW, Sydney Water Corporation and Hunter Water Corporation), and the privately-owned utilities established under the *Water Industry Competition Act (2006)* (The WIC Act). These licences regulate performance and service quality.

In relation to rural water, IPART is currently undertaking a review of WaterNSW's licences with a view to making recommendations on a new licence, to commence 1 July 2017.

### Issues Paper Question 27

How are the needs of rural water service providers (both bulk water and irrigation delivery) and preferences of users balanced in the setting of infrastructure charges? In what ways could these processes be improved?

The needs of service providers and preferences of users are best balanced in a competitive market. Therefore, where possible, measures to enhance the potential for competition to improve efficiency in service provision and reflect the preferences of customers should be pursued.

In the absence of competition, and where monopoly power exists, independent economic regulation is important in balancing the needs of service providers and users. As outlined below, IPART's review processes and methodologies aim to balance the needs of rural water service providers and users.

#### **In setting bulk water prices for WaterNSW and WAMC, we balance the needs of rural water service providers with the preferences of users through the process we undertake**

In undertaking our pricing reviews, we:

- ▼ actively engage with stakeholders
- ▼ ensure expenditure is prudent and efficient by independently reviewing service provider's proposals
- ▼ consider how price structures reflect cost structures, to promote efficiency, while also being mindful of the distribution of risk between service providers and users, and
- ▼ consider the impact upon customers and providers of proposed prices.

This approach maintains transparency, informs and strengthens our decisions, and ensures impartial determinations and recommendations. Each of these aspects of our price setting approach is discussed below.

We also review the structure and content of operating licences to ensure the needs of customers and providers are balanced.

#### **We actively engage and consult with stakeholders**

We publish issue papers at the start of a price review to explain our objectives, the criteria to be used for a determination, our proposed approach, and any known challenges that may affect our determination. We make our methodology, models and consultant reports publicly available, subject to any confidentiality. We also invite submissions in response to our issues papers and conduct hearings to encourage public understanding and debate, and to assist us in understanding stakeholder viewpoints on key issues.

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As part of our price review process, we release draft reports and draft determinations and also invite comments from the public ahead of making our final price determination.

### **We ensure expenditure is prudent and efficient by independently reviewing service provider's proposals**

We review proposed expenditure from regulated water utilities to ensure it is prudent and efficient – and only water users' share of prudent and efficient expenditure is added to the cost base to be recovered via prices.

We apply an efficiency test to proposed operating and capital expenditure over the determination period to examine whether it represents the best way of meeting customers' needs, subject to the utility's regulatory requirements. We also generally apply a prudence test to both actual and proposed capital expenditure to assess the prudence of how the decision was made to invest, and the prudence of how the investment was executed.<sup>5</sup>

Our assessment of proposed expenditure is often informed by expert consultants (typically engineering consultants), who assess the need and justification for expenditure, given the utility's service and regulatory obligations. This can include, for example, review of a utility's business cases and/or cost benefit analyses.

### **We can provide allowances for 'discretionary expenditure', where there is evidence of customer willingness to pay**

When setting prices, we can provide regulated utilities with allowances for expenditure to achieve standards above minimum regulatory requirements (eg, service or performance standards mandated in their operating or environmental protection licences), provided they provide sufficient evidence of customers' capacity and willingness to pay.

### **We apply the 'impactor pays principle' when determining costs to reflect in prices**

For WaterNSW and WAMC, we determine the proportion of prudent and efficient costs to be recovered from water users via prices, using the impactor pays principle. Only the customer share of prudent and efficient costs is recovered via prices.

Under the impactor pays approach, costs are allocated to different individuals or groups in proportion to the contribution that each individual or group makes to creating the costs (or the need to incur the costs).

### **We consider how price structures relate to cost structures, while taking into account the distribution of volume-related risk between service providers and users**

Our starting point is that tariffs should generally be structured to reflect efficient cost structures. WaterNSW and WAMC currently levy two-part tariffs, comprised of:

- ▼ a fixed charge – an annual fixed charge that applies to the share component specified on each water access licence (ie, \$ per ML of water entitlement or unit share), and

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<sup>5</sup> Under the WCIR, there is no ex-post prudence and efficiency assessment of capital expenditure for the purpose of rolling forward the RAB.

- ▼ a usage charge – that applies to the quantity of water recorded as taken for a water access licence in the billing period (ie, \$ per ML of water taken or used).

The rationale for this is that, ideally, fixed costs should be recovered through fixed charges, and variable costs should be recovered through variable (usage) charges, as this can promote the economically efficient use of water infrastructure assets.<sup>6</sup>

However, we can sometimes deviate from purely cost-reflective price structures in order to appropriately distribute volume-related risk between users and customers and to reflect the preferences of customers (see Box 2.1 below).

### **Box 2.1 WaterNSW’s cost and price structures – balancing provider and customer needs using a volatility allowance**

WaterNSW’s costs are largely fixed, whereas around 60% of its revenue in most valleys is currently raised through its usage charges. This difference between cost structure and tariff structure, combined with difficulty in accurately forecasting water usage, exposes WaterNSW to revenue volatility and hence some financial risk.

In our Draft Report for our current *Review of prices for rural bulk water services from 1 July 2017 to 30 June 2021*, we stated that:

We consider that an 80:20 fixed to variable tariff could be a reasonable price structure for WaterNSW as it better reflects its underlying cost structure, while not eliminating all business risk.

However, we also acknowledged that, to date, WaterNSW’s customers have expressed a preference for broadly maintaining the existing price structures (which are generally 40:60 fixed to variable).

For our Draft Determination, we have maintained the 40:60 fixed to variable tariff structure in most valleys, in recognition of customer preferences. But, we have included an allowance in WaterNSW’s prices to reflect the efficient costs of WaterNSW managing (or self-insuring for) the extra revenue volatility associated with a 40:60 fixed to variable tariff structure relative to an 80:20 structure.

We note that, in response to our Draft Determination, some customers may support an 80:20 fixed to variable price structure being applied to their valley to avoid the cost of a volatility allowance, and have sought stakeholder views on this.

**Source:** IPART, *Review of prices for rural bulk water services from 1 July 2017 to 30 June 2021 – Draft Report*, March 2017, pp 84-85, 89-90, 109-111.

## **We consider the impacts on customers and providers of proposed prices**

In making our pricing decisions for WaterNSW and WAMC, we consider the likely impact of our decisions on customers, generally by assuming typical patterns of usage and entitlement to estimate the impact of our decisions on a ‘typical’ customer’s bill.

We also consider impacts on the provider’s:

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<sup>6</sup> This principle is stated in the ACCC’s pricing principles for price approvals and determinations, under the WCIR, section 3.11.

- ▼ **Financial viability:** We undertake financeability tests to assess the short-term financial sustainability of utilities that we regulate. This means that we assess whether the utility will be able to raise finance, consistent with an investment grade-rated firm, during the regulatory period.
- ▼ **Shareholders:** In the case of state-owned utilities, we report on the likely impact on the Consolidated Fund.

### **We review the structure and content of operating licences to ensure the needs of customers and providers are balanced**

In conducting reviews of water utility operating licences, we run a similar public consultation process to that of our price reviews, involving issues papers, public hearings and draft reports. This provides opportunities for service providers, customers and other stakeholders to provide views on the structure and content of the operating licences.

For instance, as part of our current review of WaterNSW's operating licence, we are considering performance standards in relation to water quality, water deliveries and service interruptions. We are also considering licence requirements in relation to the role and membership of WaterNSW's customer service committees for each river valley, as well as any other potential licence requirements for WaterNSW to engage with its customers.

Our review of WaterNSW's operating licence is scheduled to conclude at the end of May 2017, when we provide our report and recommended licence to the Minister, for the licence to commence on 1 July 2017.

## 2.2 Urban water

The sections below address questions on urban water that are most relevant to IPART's current role and responsibilities.

IPART currently determines prices for the following urban water utilities:

- ▼ Sydney Water Corporation (SWC)
- ▼ the Sydney Desalination Plant (SDP)
- ▼ Hunter Water Corporation (HWC)
- ▼ WaterNSW Greater Sydney (formerly the Sydney Catchment Authority)
- ▼ Central Coast Council (formerly Gosford City Council and Wyong Shire Council), and
- ▼ Essential Energy's water and sewerage services to Broken Hill.

We also:

- ▼ recommend to the Minister the terms of SWC's, HWC's and WaterNSW's operating licences and audit compliance with these licences
- ▼ recommend to the Minister the terms of licences for private water utilities licensed under the *Water Industry Competition Act 2006* (The WIC Act), and audit compliance with these licences.

### Issues Paper Question 34

What policy and institutional arrangements are needed in the urban water sector to improve the efficiency of service provision?

To improve the efficiency of service provision of urban water utilities, we consider that there should be:

- ▼ independent economic regulation of monopoly service providers across all jurisdictions
- ▼ best practice governance and regulatory arrangements, and
- ▼ measures to enhance the potential for competition and efficient new entry in water services markets.

These are discussed below. We note that they are also applicable to **rural** water services.

### Independent economic regulation is important for ensuring efficient services

In the absence of competition, independent economic regulation is important for ensuring efficient services and pricing in mainly monopoly industries such as water. However, independent economic regulation, as exists in NSW with IPART, is still not present in several jurisdictions in Australia. The Issues Paper reports the National Water Commission (NWC) finding that:

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Economic regulation of price is not effective in all jurisdictions as governments continue to blur their roles as owner, policy setter and regulator.<sup>7</sup>

As indicated in our Introduction, independent economic regulation simulates the pressures of competition in monopoly environments by setting prices that reflect efficient costs. IPART applies incentive regulation, which works in three key ways:

- ▼ by setting maximum prices, we aim to limit the ability of monopolies to exercise market power
- ▼ by allowing the business to keep any savings or losses it makes over a regulatory period (usually 4 years) relative to the costs we allow for when we set its maximum prices, we create an incentive to minimise costs and innovate, and
- ▼ by setting cost-reflective prices, we encourage consumers to use services efficiently.

Independent economic regulation should be transparent, consistent and consultative – for example, by enabling public comment on draft decisions and key issues prior to the regulator’s final decision.

We try to provide a stable, transparent form of regulation, to allow utilities to make investment decisions with confidence in terms of how they will be assessed by IPART. A stable regulatory environment, in our view, can also help reduce barriers to private investment or entry into the industry.

### **Best practice governance and regulation are essential for improving the efficiency of service provision**

Our comments below are made in the context that many water utilities in Australia are state-owned, with larger ones such as Sydney Water Corporation, Hunter Water Corporation and WaterNSW being State-Owned Corporations (SOCs).

They also reflect the fact that competition has emerged in the urban water market in NSW (under the WIC Act), and our view that there is further scope for efficiency gains through enhanced levels of competition.

### **Shareholders of state-owned water utilities should be active in driving performance and efficiency gains, as they are in privately owned firms**

State ownership of water utilities should not dilute the role that shareholders (eg, Treasury departments, on behalf of the government) can play in driving enhanced efficiency and performance.

Private businesses have active shareholders, who will regularly review and assess the firm’s performance, focus on minimising waste and maximising returns, and sell their shares and/or put pressure on Boards and management if performance targets are not being met.

In the absence of an active shareholder, the same level of pressure can be missing from state-owned entities, or they can be subject to different pressures or drivers.

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<sup>7</sup> Productivity Commission Issues Paper, National Water Reform, March 2017, p 23, referencing National Water Commission, Australia’s water blueprint: national reform assessment 2014, p 45.

IPART has outlined a number of ways that this could be improved for SOCs in our submission to the NSW Government's review of governance and accountability of SOCs.<sup>8</sup>

We consider that SOCs need an active shareholder. This means shareholders that:

- ▼ engage in discussions about the strategic direction of the firm, and
- ▼ regularly review and assess the SOC's performance.

We consider that the shareholders should, like they do in the private sector, focus on minimising waste and maximising returns.

### **Non-commercial objectives should be clearly defined and funded, and non-commercial services should be contestable where possible**

State-owned water utilities (or State-owned Corporations – SOCs) may have obligations or rights imposed on them above and beyond their core functions (or different than would be imposed on or granted to a privately owned business). They may be required to act as quasi-government departments and deliver non-commercial services in the form of community service obligations (CSOs) or other non-core services. This could include, for example, providing sewerage services to a remote area, or participating in government policy or planning development.

These obligations can distort investment decisions, as they may be funded by cross-subsidies from the utility's commercial operations. They can also dilute management's ability and accountability to run the business efficiently. They may also provide the utility with an unfair advantage or disadvantage relative to potential or actual competitors – including privately-owned firms – to the extent there are competitors or potential entrants to the market.

Governments should pursue any non-commercial or public interest objectives through a transparent process. This includes:

- ▼ Ensuring any new or revised standards (or policy requirements) for SOCs and/or other market participants are consistent with best practice regulatory principles and processes, including consultation and cost benefit analysis.
- ▼ Only issuing SOCs with Ministerial directions, or imposing licence conditions, if there are no other viable options (eg, contracting with the SOC or private operator to undertake the non-commercial activity).
- ▼ Ensuring any non-commercial requirements are explicit, publicly disclosed, and funded by the Government.

The OECD considers it is good corporate governance for the costs of a ministerial direction to be clearly identified, disclosed and compensated for by the Budget. Explicitly agreeing the costs of meeting non-commercial objectives helps to ensure that these costs are subject to transparent scrutiny. This should increase the likelihood that the targeted benefits arising

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<sup>8</sup> IPART, *Submission to the Issues Paper on the Review of the Legislative Framework that provides for the Governance and Accountability of State Owned Corporations*, February 2014, [https://www.ipart.nsw.gov.au/files/sharedassets/website/trimholdingbay/ipart\\_submission\\_to\\_the\\_issues\\_paper.pdf](https://www.ipart.nsw.gov.au/files/sharedassets/website/trimholdingbay/ipart_submission_to_the_issues_paper.pdf).

from the non-commercial activities outweigh the costs, and that these benefits are pursued through the least-cost options.

Further, to promote contestability and ensure competitive neutrality in the provision of services (and hence ensure these services are delivered at lowest cost):

- ▼ Where possible, the provision of non-commercial services should be put to the market and competitively procured by Government rather than automatically imposed on or granted to state-owned water utility.
- ▼ State and privately owned businesses should be subject to the same rights and obligations – ie, relative to potential private sector competitors, SOCs should not be advantaged or disadvantaged by virtue of their state ownership (ie, they should not have additional requirements imposed on them, or additional privileges granted to them).

### **SOCs should be subject to best practice governance requirements**

SOCs should be subject to best practice governance requirements. Applying the *Corporations Act 2001* (Cth) (Corporations Act) to them would be an important step towards achieving this aim, and would subject SOCs to the same best practice governance requirements as private sector entities.<sup>9,10</sup>

For example, in NSW, the *State Owned Corporations Act 1989* (NSW) (SOC Act) provides for both company SOCs and statutory SOCs – differences include that company SOCs are already subject to the Corporations Act, except so far as the SOC Act states otherwise, and that statutory SOCs are subject to greater government direction. The company SOC model ensures that the SOCs' governance framework automatically remains up-to-date with the Corporations Act. In addition, it is in line with the OECD corporate governance principles, which consider that the legal form of a State-owned enterprise should be based as much as possible on corporate law.<sup>11</sup> Existing statutory SOCs could be transitioned into company SOCs by amending the SOC Act.<sup>12</sup>

This would:

- ▼ clarify the range of duties the directors owe to the SOCs
- ▼ introduce independent oversight of the SOC governance arrangements by ASIC and increase the sanctions available for poor commercial performance

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<sup>9</sup> Currently all SOCs listed in the SOC Act, including Hunter Water Corporation and Sydney Water Corporation, are statutory SOCs.

<sup>10</sup> IPART, *Submission to the Issues Paper on the Review of the Legislative Framework that provides for the Governance and Accountability of State Owned Corporations*, February 2014, [https://www.ipart.nsw.gov.au/files/sharedassets/website/trimholdingbay/ipart\\_submission\\_to\\_the\\_issues\\_paper.pdf](https://www.ipart.nsw.gov.au/files/sharedassets/website/trimholdingbay/ipart_submission_to_the_issues_paper.pdf).

<sup>11</sup> OECD, *Guidelines on Corporate Governance of State-owned Enterprises*, 2005, p 20.

<sup>12</sup> Parliament would need to pass legislation to insert the names of the existing SOCs into Schedule 1 of the SOC Act (s4 SOC Act). The SOCs would also need to be registered under the Corporations Act as companies limited by shares (Part 2A.1 Corporations Act).

- ▼ introduce safeguards around dividend payments (ie, a SOC would not be able to pay a dividend unless it meets a balance sheet test)<sup>13</sup>
- ▼ more closely align the SOC governance framework with the one for private sector entities, which is consistent with the principle of competitive neutrality.

However, because fundamental differences exist between SOCs and private sector entities, we recognise there will be a limited range of instances where it will be appropriate for the SOC governance framework to depart from the Corporations Act. For example, when SOC directors are required to undertake non-commercial or public interest activities (as discussed above). We also recognise that SOCs should remain vehicles for Government to pursue social programs under specific conditions (outlined above).

### **Regulatory requirements imposed on water utilities should be consistent with best practice principles**

Water utilities are generally subject to a comprehensive regulatory framework, reflecting their role as an essential service provider and their potential impacts on the environment and the community. It is therefore important that this regulatory framework achieves its objectives at lowest net cost or greatest net benefit, and is consistent with best practice principles in relation to developing, implementing and administering regulation.

In developing regulatory requirements, consideration should be given to all viable options, and the costs and benefits of each option in achieving the regulatory objective should be assessed. This should include consideration of outcomes-focused regulation and market based regulatory instruments.

In this context, we note that pollution mitigation is a major driver of costs in sewage management. At present, most environmental regulations license a business or plant to pollute a certain amount in each period. Creating a cap and trade or offset scheme for a specific waterway (eg, a river system) could lead to a more efficient allocation of pollution rights and increase flexibility, allowing environmental objectives to be met at least cost. It might also facilitate greater competition in the provision of sewage treatment or pollution mitigation measures (particularly inland, where pollution mitigation costs are the greatest).

In NSW, the Hunter River Salinity Trading Scheme, a cap and trade system, has been implemented to allow participants (eg, mines and electricity generators) to dispose of highly saline water whilst managing the level of salinity in the river. This has improved the efficiency of salinity management.<sup>14</sup>

### **Increasing competition in water markets would improve outcomes for customers**

Competitive markets deliver goods and services that customers want at prices that reflect the efficient cost of production. Competitive markets are responsive to changes in consumer preferences and drive innovations that lead to more choice and better value for customers.

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<sup>13</sup> The SOC's assets exceed its liabilities immediately before the dividend is declared, and the excess is sufficient for the payment of the dividend. The dividend payment must be fair and reasonable to the SOC's shareholders as a whole, and not materially prejudice the SOC's ability to pay its creditors (section 254T, Corporations Act).

<sup>14</sup> [http://www.epa.nsw.gov.au/licensing/hrsts/how\\_the\\_scheme\\_works.htm](http://www.epa.nsw.gov.au/licensing/hrsts/how_the_scheme_works.htm),  
<http://www.epa.nsw.gov.au/licensing/hrsts/success.htm> (accessed 5 April 2017).

Customers have a crucial role in competitive markets. For example, they choose the products or services they want, the level of quality they expect for a given price and at what price levels they would switch to a different product. Suppliers strive to win customers by lowering costs or providing a 'better' product. Competitive markets also drive innovations, which are crucial to achieving dynamic efficiency.

While regulation can, up to a certain point, mimic a workably competitive market, introducing competition will almost certainly achieve more efficient outcomes. Economic regulation is required to address problems that arise in uncompetitive markets. While regulation represents an improvement over an uncompetitive market, a better solution is to remove barriers to entry and restructure the market in order to promote more competition and reduce the need for economic regulation.

As an example, our current review of prices that Sydney Water Corporation and Hunter Water Corporation can charge for wholesale water and sewerage services seeks to encourage efficient entry to the NSW water market. Our main objective for this review is to establish an approach for regulating wholesale prices that allows new entry to the market for end-use water and sewerage services to occur where this is efficient, to promote competition for the benefit of consumers over time.<sup>15</sup>

Competition, or even the credible threat of competition, in the water market can deliver a number of benefits, including:

- ▼ Lower prices – competition can provide water and wastewater services at lower cost, and facilitate a more optimal use of resources.
- ▼ More innovation – competition can provide opportunities and incentives for service providers to identify and solve the economic, environmental and technological challenges facing water and wastewater markets.
- ▼ Better services – competition can enhance the quality and timing of service provision, to meet the needs of customers.
- ▼ Greater security of supply – competition can increase the diversity of servicing solutions, and therefore enhance security of supply.

We discuss our views on how the level of competition in urban water markets can be increased in response to question 37.

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<sup>15</sup> IPART, *Prices for wholesale water and sewerage services – Sydney Water Corporation and Hunter Water Corporation – Supplementary Draft Report*, March 2017, pp 1, 18.

### Issues Paper Question 35

What approach should be taken to price regulation in the urban water sector? Is there a need for greater consistency in price setting approaches across different jurisdictions? Do current pricing practices promote investor confidence?

#### Independent price regulation is important in the urban water sector

We consider that, in the absence of competitive markets, independent economic regulation that determines prices at arm's length from Government, and is accompanied by transparent, consistent and consultative processes,<sup>16</sup> is a key requirement for the efficient provision of water services.

Such independent economic regulation provides greater certainty for regulated utilities, their shareholders and other stakeholders. By providing greater certainty for regulated utilities, it allows them to make investment decisions with confidence in terms of how they will be assessed by the regulator, and provides them with incentives for ongoing efficiency gains. A stable regulatory environment can also help to reduce barriers to private investment or entry into the industry.

In NSW, IPART undertakes transparent, consistent and consultative processes in regulating water prices, where we publicly outline the reasons for our decisions. For example, we have a transparent and reproducible process for calculating the weighted average cost of capital (WACC) to determine the appropriate rate of return that the shareholder should earn on its investment. Our WACC model enables stakeholders to replicate our WACC decisions using publicly available information. We also publish financial market updates biannually in February and August to allow our stakeholders to better replicate and predict our WACC decisions.<sup>17</sup> This promotes investor and stakeholder confidence.

Our approach to regulation does not depend on the ownership of a utility. It is indifferent to the private or public ownership of assets and utilities. Our regulatory model looks only to set prices to reflect the efficient costs of the regulated services.

Regardless of the type of business we are regulating, we apply the same principles:

- ▼ we aim to simulate the effects of competition, and
- ▼ we set prices to reflect the efficient costs of service delivery – not the regulated business's actual costs.

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<sup>16</sup> Transparent and consultative processes can include releasing draft reports and determinations for public comment, and publicly outlining the reasons for the decisions, and how comments have been taken into consideration.

<sup>17</sup> In conjunction with the update, we also release a WACC spreadsheet with a working copy of our full WACC model.

## **Independent economic regulation in all jurisdictions would enhance pricing consistency**

Consistency across jurisdictions in terms of adhering to best practice pricing principles (including prices that reflect efficient costs) is important for at least two reasons:

- ▼ to ensure the efficient use and distribution of resources – ie, artificially low or high prices in some jurisdictions will distort investment and consumption decisions, and
- ▼ to minimise regulatory costs, minimise investment uncertainty and maximise the potential for competition.

In terms of this last point, we note that competition and new entry to the urban water market is most viable in large cities, and that some new entrants may seek to operate in multiple urban water markets (ie, horizontal expansion across urban water markets) to enhance economies of scale in certain functions (eg, retailing services, such as billing). Consistency in price regulation across jurisdictions may therefore become increasingly important in minimising regulatory costs and enhancing certainty, as competition emerges in urban water markets.

We consider the main reason for a lack of consistency across jurisdictions is that not all jurisdictions have independent economic regulators with powers to determine prices at arms length from government. Our experience is that economic regulators across water markets in Australia generally agree on pricing and regulatory principles, but that they have varying levels of scope and responsibility to implement these principles.

If independent economic regulation of monopoly water providers were introduced in each jurisdiction, regulators would be able to determine prices subject to consistent pricing principles, while tailoring their specific approaches to reflect local circumstances as necessary (eg, the size of the utility, the level of competition in the market, the local environment).

We consider the NSW model, with IPART as the independent economic regulator, is one that should be applied in those jurisdictions that currently do not have independent economic regulation.

## **Developing nationally consistent principles in relation to competition and private sector participation**

We also consider it important to develop nationally consistent principles in relation to competition and private sector participation in the water market. This could facilitate greater investment and lead to stronger competition in the water industry, without undermining state-based regulatory regimes and the benefits of competition between states. Further, once consistent regulatory frameworks and principles are in place, states should consider reciprocally recognising licences issued under each regime, to facilitate horizontal expansion.

The NSW Water Industry Competition Act 2006 (The WIC Act)<sup>18</sup> provides a framework for developing nationally consistent principles. We consider that these key principles include:

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<sup>18</sup> A review of the WIC Act has changed the WIC Act Licensing regime; however the Water Industry Competition Amendment (Review) Act 2014 has not yet commenced.

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- ▼ water licensing for private water utilities should be as simple and standardised as possible, while providing protection for customers, the environment and the broader community
  - ▼ key urban water markets should have access regimes (for third party access to significant monopoly infrastructure)
  - ▼ there should be clear and consistent dispute resolution processes
  - ▼ there should be powers to price regulate monopoly services, and
  - ▼ safeguards should be incorporated through auditing water utilities.

### Issues Paper Question 36

Is there a case to increase the involvement of customers in regulatory decision making, as is commencing in Victoria? If so, what is the best way to do this?

#### **Consultation is an important component of independent economic regulation**

We consider that consultation between a regulated agency and its customers is very important. However, we do not consider that it is the role of a regulator to prescribe the level and type of engagement. IPART does not prescribe the extent and type of consultation regulated agencies should undertake. Rather, we provide guidelines on what agencies should include in their pricing proposals (or submissions) to IPART to ensure transparency in our reviews and determinations. Our position is that:

A water agency's submission should include information on how customers have been consulted on proposed prices and report the responses of customers to these proposed prices. Agencies should provide evidence of customers' willingness to pay where new charges are introduced or large discretionary expenditures are being undertaken. Discretionary expenditures occur when agencies invest in projects that provide services or achieve outcomes that are not mandated or go beyond service standards stipulated in each agency's operating licence.

Water agencies could also provide evidence from objective customer surveys in support of new charges or large increases in existing charges. Wherever willingness to pay studies, customer surveys, or other forms of customer consultation are undertaken, the water agency should outline the methodology used for these studies or surveys, or how the customer consultation was undertaken.<sup>19</sup>

We note that the Victorian model seeks to incentivise outcomes driven by customer consultation. However, we do not consider that consultation should give regulated agencies leverage over the regulator to provide automatic acceptance of a regulated business' proposals, without independent scrutiny and testing of proposals.

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<sup>19</sup> IPART, *Guidelines for Water Agency Pricing Submissions*, March 2014, pp 22-23.

### Issues Paper Question 37

How can the level of competition in the provision of urban water services be increased?

Generally, competition can work in two ways in urban water industries:

- ▼ Competition *in* the market - where two firms compete directly for customers, and is the most powerful form of competition. Within a market, multiple firms competing to provide a product based on price and/or quality creates a strong incentive to innovate and increase efficiency, because the alternative is falling profit margins and market share.
- ▼ Competition *for* the market - where firms compete for the right to service a particular market, usually through competitive procurement. This can range from an incumbent water utility's competitive procurement of specific assets or services (eg, operating and maintenance contracts), to competition to be the water utility for a specific geographic area or new development.

To increase competition in the provision of urban water services, it is important that the legislative framework facilitates entry of new service providers and any impediments to efficient new entry are removed (so that incumbent suppliers and potential new entrants are on a level play field).

### Introducing legislation and setting efficient prices that facilitate entry of new water service providers

In NSW, the *Water industry Competition Act 2006* (the WIC Act) commenced in 2008 with the aim of encouraging competition and innovation in the provision of water and wastewater services. It includes:

- ▼ **A licensing regime** - which enables new service providers to enter the industry, while protecting public health and the environment.
- ▼ **A third party access regime** - which allows new entrants to seek access to existing monopoly infrastructure networks covered by an access undertaking or coverage declaration in order to compete in the provision of upstream or downstream services in Sydney Water and Hunter Water's areas of operations.<sup>20</sup>

Recently, we have seen competition emerging *in* and *for* the market from WIC Act licensees. We are currently in the process of reviewing the prices Sydney Water and Hunter Water can charge for wholesale water and sewerage services. These are services purchased by WIC Act licensees from Sydney Water and Hunter Water to compete with them for end-use (retail) customers 'upstream' or 'downstream' of the wholesale services it has purchased.<sup>21</sup>

<sup>20</sup> Currently, under the WIC Act, the Bondi, Malabar and North Head wastewater reticulation networks are subject to a coverage declaration, which means new entrants can negotiate with Sydney Water to obtain access to these networks.

<sup>21</sup> The contestable service(s) is the service(s) between the wholesale connection point and the end-use (retail) customers, and often include reticulation and retail services. The wholesale service purchased by a wholesale customer from either Sydney Water or Hunter Water can be the provision of potable water or disposal of sewerage at certain connection points.

They differ from third party access (outlined above) in that the wholesale customers are seeking to purchase a bundled product (ie, bulk water, water treatment and transportation) from the incumbent wholesale service providers to on-sell to end use customers, rather than simply access to the transportation network. Our aim in the wholesale pricing review is to encourage competition in the supply of water and sewerage services, to enhance innovation and efficiency over time for the benefit of end-use water and sewerage customers.

We outline below other reforms that could potentially increase competition.

- ▼ **Providing opportunities for the market to inform strategic land use planning processes**
  - Currently, there is a tendency for government strategic land-use planners to rely on information from the incumbent public water utility to inform their decisions on the location and sequencing of land release, rather than also seeking information or expressions of interest from the market – that is, other potential water and wastewater service providers. In turn, this can favour the incumbent public water utility and give them a ‘head start’ on potential new entrants in servicing new development areas.
- ▼ **Setting prices and developer charges as cost-reflective as possible**
  - Currently, through a combination of postage stamp pricing – which reflects the utility-wide average cost of service, rather than location-specific costs – and a lack of cost-reflective developer charges for new development, large public water utilities have no alternative than to cross-subsidise their provision of services to new development areas. This provides little opportunity for new entrants to compete on the basis of the costs of servicing the new area.
  - Postage stamp pricing, combined with a lack of cost-reflective developer charges, can also distort location based investment decisions, as it removes price signals about the costs of servicing different locations.
- ▼ **Clearly defining the provision of non-commercial water services or CSO activities and making them contestable**
  - This is discussed in detail in response to Question 34.
- ▼ **Using market based, outcomes-focused instruments, rather than overly prescriptive approaches, to achieve environmental or other policy objectives**
  - This is discussed in detail in response to Question 34.
- ▼ **Examine opportunities to expand and enhance the third party access regime.** For example:
  - by expanding the range of infrastructure that is declared open for access – for instance, to include more of the incumbents’ water and wastewater distribution network – where it is of natural monopoly scale
  - by encouraging incumbents to establish and ultimately publish approved access undertakings – outlining the proposed terms and conditions for access, including access pricing, and
  - by encouraging incumbents to provide or publish other information relevant to access, such as the capacity of their existing water and wastewater infrastructure.

#### Issues Paper Question 40

What is the importance of integrated water cycle management? Are roles and responsibilities in relation to this clear?

#### **During our reviews, stakeholders have indicated that integrated water cycle management is important to them**

As part of our price reviews, stakeholders have indicated that integrated water cycle management, and liveable cities, are important to them.

In the 2017 wholesale water price review, stakeholders argued that wholesale prices should recognise and reflect the benefits of integrated water cycle management and, in particular, recycled water schemes.<sup>22</sup>

Similarly, in the 2016 Sydney Water retail price review, stakeholders stated that recycled water was a key component of integrated water cycle management, where local water utilities manage urban water services collectively, not as individual components, saving resources and improving services to ratepayers. Further, stakeholders emphasised the importance of recycled water in the concept of liveable cities, where the focus is upon living sustainably and better use of natural resources.<sup>23</sup> We will consider integrated water cycle management as part of our review of recycled water, which will commence later in this year.

We note that integrated water cycle management and recycled water supply are not benefits or 'ends' in themselves. Rather, they can be means of achieving a range of objectives, which are largely related to environmental protection and enhanced liveability and include:

- ▼ enhanced environmental outcomes as result of less water extracted from the natural environment and/or less sewerage discharged to the natural environment
- ▼ downward pressure on water prices from avoided upstream and/or downstream water and/or sewerage infrastructure augmentation
- ▼ more secure water supply (eg, reducing the likelihood, and hence cost, of water restrictions), and
- ▼ enhanced liveability, through urban greening and cooling.

Ideally, from the community and water users' perspectives, the least cost (or most efficient) means of achieving these objectives should be pursued. IPART does not pre-emptively favour specific servicing solutions or means of achieving regulatory objectives. Rather, we aim to set prices that allow regulated water utilities to recover their efficient costs, while complying with their regulatory obligations. This should send appropriate signals to water suppliers and consumers, so that resources are used and distributed optimally, to maximise community benefit.

<sup>22</sup> IPART, *Prices for wholesale water and sewerage services – Sydney Water Corporation and Hunter Water Corporation – Supplementary Draft Report, March 2017*, p 22.

<sup>23</sup> IPART, *Review of prices for Sydney Water Corporation from 1 July 2016 to June 2020 – Final Report, June 2016*, p 218.

## Greater clarity is required on the roles and responsibilities for integrated water cycle management

Submissions to our 2016 Sydney Water price review and our 2017 wholesale water price review indicated that stakeholders are not clear on the roles and responsibilities for integrated water cycle management. IPART is not responsible for setting the environmental or liveability objectives of the community, nor for determining the best way for such objectives to be met. Rather, we ensure the prices we set for water utilities reflect the efficient costs of these utilities' complying with their regulatory requirements.

We primarily factor relevant liveability considerations, such as environmental sustainability, into utilities retail prices through the following process:

1. Parliament passes legislation and government (including through agencies such as the Environment Protection Agency, Department of Primary Industry - Water and the Department of Planning and Environment) sets policy and regulatory requirements to reflect the relevant legislative requirements. This includes requirements imposed on utilities.
2. Each regulated utility develops a plan and estimates the level of expenditure required to deliver its services and meet its obligations. The utility then makes a pricing proposal to IPART.
3. We review the utility's pricing proposal to ensure that its prices reflect the prudent and efficient costs of delivering its services and meeting its mandated obligations as set out in point 1 above.

IPART would consider, and could allow, expenditure proposals to achieve standards higher than those mandated by Parliament and/or government. In such a case, IPART would require clear evidence that it would be prudent and efficient for customers to pay to exceed the mandated standards. For instance, IPART would consider:

- ▼ Whether the issue has been considered by Parliament and/or government when setting the existing standard or regulatory requirements and whether the facts around the issue have changed since that time.
- ▼ Whether the proposal would fit best with the utility's responsibilities or whether it would fit best with another party or parties' responsibilities such as another arm of government or local government.
- ▼ Whether the utility's customers have both the capacity and willingness to pay more to realise the higher standard.
  - Proponents would need to provide evidence for IPART to consider in forming a judgement on whether the utility's customers have the capacity and willingness to pay the higher prices required to meet the higher standard.

## Issues Paper Question 41

How can demand management approaches such as water restrictions and water-use efficiency measures best contribute to the efficiency of urban water services?

### **Scarcity prices are preferable to water restrictions and may increase competition and encourage efficiency**

During the drought in the early to mid-2000s, most major cities in Australia imposed water restrictions. Water restrictions are effective tools and are generally supported by the community. However, they are blunt instruments and may create welfare losses relative to efficient scarcity prices.<sup>24</sup> Scarcity pricing may be used to ameliorate, if not avoid, water restrictions.

A form of scarcity pricing in the urban water market could result in water prices that better reflect supply and demand conditions. Scarcity pricing could be implemented at the retail level and/or at the bulk water level. At the retail level it would send a scarcity signal directly to customers. This would encourage customers to reduce their discretionary consumption when dam levels are low.

At the bulk water level, it would signal the cost of water to retail businesses. It would help ensure that they purchase water from the least cost combination of supply sources<sup>25</sup> and create incentives to invest in water conservation measures when efficient. It would also create a price signal to suppliers, and potential suppliers, of bulk water. This would encourage efficient investment in supply augmentations.

We consider that in the short term, scarcity prices would need to be administratively set (this is in contrast, for example, to a market-determined scarcity price that applies in the bulk water market in the Murray-Darling Basin, where a price is set by the market through the trade of water entitlements).

By way of example, options for administratively setting scarcity prices include:

- ▼ In conjunction with usage targets at different water storage levels, set prices based on the best estimate of immediate price elasticity. Theoretically, this would reduce consumption to the desired levels, however the wide range of estimates of the price elasticity of demand for water make this unreliable.<sup>26</sup>
- ▼ Set the water usage price with reference to the Long Run Marginal Cost of supply (LRMC) and recalculate the LRMC estimate as water storage levels fall. This relies on the assumption that low dam levels accelerate the timing of the next supply augmentation and consequently increase the LRMC.

<sup>24</sup> OECD, *Water Security for Better Lives*, 2013, p 79.

<sup>25</sup> To the extent possible under operating rules.

<sup>26</sup> There is no consensus estimate of the price elasticity of water demand. For example, the OECD estimates price elasticity of demand at -0.56 (OECD, *Water Security for Better Lives*, 2013, p 80), while Sydney Water has estimated long run price elasticity of demand at -0.11 (Sydney Water, *The residential price elasticity of demand for water*, February 2011, p 8). Therefore, the potency of scarcity pricing is unknown.

- ▼ Set water usage charges to reflect the marginal costs of supplementary supply (or drought response) sources when they are activated. For example, in Sydney as water storages fall, the Shoalhaven pumping scheme and the Sydney Desalination Plant (SDP) would increase charges as they are turned on in accordance with their operating rules.<sup>27</sup>

### **Our 2016 Sydney Water determination includes an uplift to the water usage price during times of scarcity**

Our usual practice is to set Sydney Water's and Hunter Water's water usage prices with reference to estimates of the LRMC of supply. The LRMC of supply represents the costs of the next efficient augmentation to Greater Sydney's water supply network. The aim of setting water usage charges at LRMC is to encourage the efficient use and allocation of resources, by signalling to customers the costs of their decisions to consume an extra unit of water.

However, in our 2016 Sydney Water price determination,<sup>28</sup> we set the water usage charge above our current best estimate of the LRMC. In doing so, we recognised:

- ▼ our decision to accept Sydney Water's proposed usage charge of \$1.97 per kL, which was \$0.31 per kL less than the prevailing usage charge, represented a step towards our best estimate of the LRMC
- ▼ there was some uncertainty with our LRMC estimate, particularly with respect to the overall system yield and what the next water supply augmentation is likely to be<sup>29</sup>
- ▼ Sydney Water's research suggested \$1.97 per kL was broadly in line with customer preferences,<sup>30</sup> and
- ▼ the benefits of price stability – a significantly greater reduction in the water usage charge than what Sydney Water proposed would have a significant impact on the structure of customers' bills and may lead to unexpected behavioural changes.<sup>31</sup>

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<sup>27</sup> Under the existing operating rules, Shoalhaven pumping begins when storages fall below 75%, and the desalination plant begins operation when storages fall below 60%. (NSW Government, *2017 Metropolitan Water Plan*, March 2017, p 28).

<sup>28</sup> IPART, *Review of prices for Sydney Water Corporation from 1 July 2016 to June 2020 – Final Report*, June 2016, p 155.

<sup>29</sup> This is particularly the case given the ongoing Metropolitan Water Plan Review and the Hawkesbury-Nepean Flood Management Review.

<sup>30</sup> To inform its pricing proposal, Sydney Water surveyed approximately 1,700 customers online to assess whether they preferred greater bill certainty (ie, a higher fixed water service charge) or greater bill control (ie, a higher water usage price). Customers preferred three distinct water usage prices – \$1.20, \$1.90 and \$2.60 per kL – and a substantial proportion preferred usage prices in the range of \$1.90 to \$2.30 per kL. We estimate the average water usage price from the survey results was \$1.98 per kL. Sydney Water pricing proposal to IPART, June 2015, pp xxi-xxii.

<sup>31</sup> This view was echoed in submissions. For instance, see Council of the City of Sydney submission to IPART Issues Paper, October 2015, p 4; and Sydney Coastal Councils Group Incorporated submission to IPART Issues Paper, October 2015, p 4.

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In the 2016 Sydney Water price determination, we also included an uplift to the water usage charge to reflect the additional costs of water supplied from the Sydney Desalination Plant (SDP) if and when it is required to operate in times of water scarcity.<sup>32</sup> Under the operating rules of the recently released 2017 Sydney Metropolitan Water Plan, the SDP is required to operate when dam levels fall to 60% and must continue to do so until they rise to 70% (this 60/70 regime has replaced the previous 70/80 rule).

### **Sydney Water is also required to apply the economic level of water conservation to its activities**

In the past, Sydney Water has had fixed water conservation targets in its operating licence. While the targets have been successful in reducing water use, they provide little additional benefit once the target has been achieved. Fixed targets may also lead to over-investment when water is more plentiful, therefore increasing costs for the community; or under-investment in water conservation measures when water is scarce.

For its 5-year operating licence to apply from July 2015, IPART recommended inclusion of requirements for Sydney Water to determine and report against its **economic level of water conservation (ELWC)**, in place of fixed volumetric water conservation targets. This expanded the concept of the economic level of leakage to all water conservation measures, including leakage reduction, water efficiency measures and water recycling projects.

Sydney Water has subsequently developed a methodology to determine its ELWC. This means investment in water conservation can be expected to increase should Greater Sydney go into a drought, or if water use rises significantly above the business as usual water demand forecast used in the 2017 Metropolitan Water plan.

The new ELWC method will set investment priorities for water conservation projects, and details of which projects have been selected for delivery will be explained in a Water Conservation Program report. The first new five-year Water Conservation Program will be released in September 2017 and updated annually.<sup>33</sup>

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<sup>32</sup> IPART, *Review of prices for Sydney Water Corporation from 1 July 2016 to June 2020 – Final Report*, June 2016, p 155.

<sup>33</sup> NSW Government, *2017 Metropolitan Water Plan*, March 2017, p 30.

## 2.3 Achieving reform

### Issues Paper Question 42

Should further water reform be pursued through an improved NWI?

This submission outlines our views on where there is scope for further water reform. In particular, this includes:

- ▼ Establishing independent economic regulation in each state and territory, as is present in NSW
  - we are aware that economic regulators in other jurisdictions have only advisory or significantly constrained roles in relation to water.
- ▼ Introducing measures to promote competition and efficient new entry into water markets.