

# Urban water pricing reform

## *National urban water pricing standards and implementation pathway*

A confidential Final Report prepared for Infrastructure Australia

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**A I T H E R**



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## Abbreviations

|        |                                                                                  |
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| AIP    | Australian Infrastructure Plan                                                   |
| IA     | Infrastructure Australia                                                         |
| COAG   | Council of Australian Governments                                                |
| ERA    | Economic Regulation Authority (Western Australia)                                |
| ESC    | Essential Services Commission (Victoria)                                         |
| ESCOSA | Essential Services Commission of South Australia                                 |
| ICRC   | Independent Competition and Regulatory Commission (Australian Capital Territory) |
| IPART  | Independent Pricing and Regulatory Tribunal (New South Wales)                    |
| NCP    | National Competition Policy                                                      |
| NWC    | National Water Commission                                                        |
| NWI    | National Water Initiative                                                        |
| OTTER  | The Office of the Tasmanian Economic Regulator                                   |
| PC     | Productivity Commission                                                          |
| QCA    | Queensland Competition Authority                                                 |
| RAB    | Regulatory Asset Base                                                            |
| SGWC   | Steering Group on Water Charges                                                  |
| WSSA   | Water Services Association of Australia                                          |

## Glossary

|                             |                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Competitive neutrality      | A sector or industry where competitive neutrality is in place will be characterised by a level playing field.                                                                                                                                                                                                                                                                                 |
| Flexible (scarcity) pricing | An alternative approach to pricing where the variable component of a two-part tariff set to reflect the marginal opportunity cost of water                                                                                                                                                                                                                                                    |
| Natural monopoly            | A natural monopoly exists when a single firm can provide a service at lower cost than any combination of two or more firms.                                                                                                                                                                                                                                                                   |
| Postage stamp pricing       | A pricing approach whereby customers, usually within a geographic area serviced by a government-owned water service provider, pay a uniform price which generally reflects the average cost of service provision to that geographic area.                                                                                                                                                     |
| Upper bound pricing         | Under the NWI, upper bound pricing is “the level at which, to avoid monopoly rents, a water business should not recover more than the operational, maintenance and administrative costs, externalities, taxes or tax equivalent regimes, provision for the cost of asset consumption and cost of capital, the latter being calculated using a weighted average cost of capital” (COAG, 2004). |

# Executive summary

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Infrastructure Australia (IA) is developing a suite of reports designed to inform and promote reform in Australia's urban water sector. Initially, in 2016, IA published the *Australian Infrastructure Plan (AIP)* – the first of a series of 15-year rolling infrastructure plans, which recommended reforms to the urban water sector to deliver:

- more cost-effective and customer responsive water services including policy and institutional reform to promote competitive neutrality,
- genuinely independent economic regulation that is free from policy interventions designed to reduce water prices, or extract monopoly rents, and
- uniform drinking water quality and environmental regulations.

To build on these recommendations, IA engaged Aither to develop an overarching *Urban Water Reform Pathway* for Australia's urban water sector. Urban water pricing reform is one of a suite of proposed reforms as part of IA's *Urban Water Reform Pathway*. The *Urban Water Reform Pathway* includes the following actions for urban water pricing:

- Implement policy and institutional reforms designed to promote competitive neutrality in the metropolitan water sector including full cost recovery pricing which includes a commercial rate of return on capital.
- Revisit and improve the National Water Initiative (NWI) Pricing Principles. These principles provide too much flexibility for approaches to price setting that is inconsistent with the intent of the NWI and are not binding on jurisdictions NWI. Improving pricing requires a nationally consistent pricing standard.
- Obtain a national commitment from governments to manage the impact of rising water bills on low income households such as pensioners through mechanisms other than broad based water price reductions.

This project aims to build on these recommendations by establishing national urban water pricing standards and a pathway to implement these standards.

## Project scope

The scope of this report is to:

- outline nationally consistent urban water pricing standards that support broader urban water sector reform (including a *base standard* premised on existing national pricing commitments and a *best-practice standard*),
- present the current state of play for urban water pricing by assessing progress and areas for improvement against the proposed national pricing standards), and
- develop an urban water pricing reform pathway that articulates how the standards could be implemented.

## Urban water pricing: current national policy

While setting urban water and wastewater prices is ultimately a matter for state and local governments who own (or regulate) urban water service providers), the 1994 COAG Water Reform Framework and 2004 Intergovernmental Agreement on a National Water Initiative (NWI) have shaped the way prices are currently set. The NWI is the most recent and most significant interjurisdictional policy agreement for water pricing. The NWI includes the fundamental tenets of the 1994 COAG Water Reform Framework and can be seen as an extension of that agreement.

The NWI includes a number of objectives including to promote efficient and sustainable use of water resources and water infrastructure assets. For urban water pricing, states and territories agreed that these objectives would be achieved by:

- implementing consumption based pricing
- achieving full-cost recovery for water services to ensure business viability and avoid monopoly rents through continued movement towards upper bound pricing (by 2008)<sup>1 2</sup>
- publicly reporting Community Service Obligations (CSOs) and, where practicable, considering alternative arrangements aimed at removing the need for an ongoing CSO
- using independent bodies to set or review prices, or price setting processes (COAG, 2004).

In 2010, jurisdictions agreed to a set of NWI Pricing Principles which provide further guidance for water pricing, beyond that which is specified in the NWI. Of most relevance for this report are the principles for recovering capital expenditure and setting urban water tariffs<sup>3</sup>.

At the state and local government level, governments and economic regulators set prices in accordance with their own policies, with varying degrees of alignment with national objectives and principles.

## Role of urban water pricing

Water pricing plays an important role in the performance of the urban water sector. At the centre of NWI pricing policy is the requirement to balance full cost recovery while ensuring customers pay only for costs that are prudent and efficient. Pricing that allows water service providers to recover the full costs of service delivery allows water service providers to fund future investment in new infrastructure and an appropriate level of investment in renewals and maintenance of existing infrastructure.

Significant investment during the Millennium Drought and slower economic growth in general, means there are limits on the ability of publicly owned utilities to access capital for investment in infrastructure. Pricing that allows service providers to recover the costs of service provision is particularly important to improve financial performance for these businesses. Future investment drivers including ageing assets, population growth and balancing supply and demand in the face of climate variability and change mean that full cost recovery is still critical to the future performance of the urban water sector.

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<sup>1</sup> Under the NWI, upper bound pricing is “the level at which, to avoid monopoly rents, a water business should not recover more than the operational, maintenance and administrative costs, externalities, taxes or tax equivalent regimes, provision for the cost of asset consumption and cost of capital, the latter being calculated using a Weighted Average Cost of Capital (WACC)” (COAG, 2004).

<sup>2</sup> The NWI notes that “there will be some small community services that will never be economically viable but need to be maintained to meet social and public health obligations”.

<sup>3</sup> The NWI Pricing Principles are discussed in more detail in Section 2.1.3 and in Appendix A.

Water pricing also plays a role in contributing to competitive neutrality. Pricing at full cost recovery, including a return on capital, is an important element of a range of reforms that could facilitate increased investment from the private sector.

Water pricing also plays an important, demand management role. There has been considerable progress in implementing two-part tariffs which include a variable charge linked to metered consumption. The NWC (2011) found that consumption based pricing has contributed to a “consistent pattern of reduced water consumption” that was particularly evident in the 1990s where there was a strong causal relationship between variable charges and reduced water consumption independent of “other factors such as water restrictions and conservation campaigns”.

By influencing demand, water prices can ‘push back’ large infrastructure augmentation investments. Once these investments are made, they flow through to bills and consumption-based pricing and metering therefore plays a role in minimising future bill increases.

## NWI objectives are still appropriate

The Australian Government’s 2015 *Review of Competition Policy* noted that:

- The NWI set out clear principles which, if fully implemented, would better reflect the cost of providing water, promote greater private involvement in the sector and establish more rigorous economic regulation.
- NWI principles remain appropriate and state and territory governments should continue to progress their implementation.

The *Review of Competition Policy* recommended that “all governments should progress implementation of the [pricing] principles of the NWI, with a view to national consistency”.

## Progress in implementing NWI commitments

Despite being agreed over two decades ago under the 1994 COAG Water Reform Framework, the fundamental principle of full cost recovery for urban water pricing is not being met universally across the urban water sector (PC, 2011, NWC, 2011). This was particularly evident during the millennium drought. For example, the National Water Commission (NWC) found that:

*Governments directly subsidised many investments, meaning that water customers did not face the full costs of water services. This occurred either via direct subsidies or through arbitrary restrictions on the rate of return earned on assets or by specifying maximum price increases. (NWC, 2011)*

Relative to NWI commitments, there is also further work to be done to expand the coverage of independent economic regulation (PC, 2011, NWC, 2011).

While NWI objectives are still appropriate, the implementation of pricing policies under the NWI has been inconsistent across jurisdictions and in some cases, inconsistent with the intent of the NWI. This has been further entrenched by the NWI Pricing Principles. For example, both The Productivity Commission (PC) and the NWC have argued that the NWI Pricing Principles provide too much flexibility in implementation and do not necessarily support principles of economically efficient pricing.

# National urban water pricing standards

## Base standard

For the purpose of this report, the base standard has been defined as that already agreed under the NWI and NWI Pricing Principles. An overview of the base pricing standard is presented in Figure 1.

| Pricing standard elements |                                              | Details that define the base pricing standard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---------------------------|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                         | Independent economic regulation              | <ul style="list-style-type: none"> <li>• Use independent bodies to set or review prices, or price setting processes</li> <li>• Government does not intervene in pricing (other than transparent CSOs)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                       |
| 2                         | Full cost recovery                           | <ul style="list-style-type: none"> <li>• Charges are set to achieve full cost recovery, including a return on capital for all new expenditure</li> <li>• If a CSO is required (e.g. in smaller, regional schemes), it is reported publically and removed over time (where practical)</li> </ul>                                                                                                                                                                                                                                                                                        |
| 3                         | Approaches to recovering capital expenditure | <ul style="list-style-type: none"> <li>• Renewals annuity or RAB (building blocks) as per NWI Pricing Principles</li> <li>• RABs are not reset after initial line in the sand</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                               |
| 4                         | Treatment of contributed assets              | <ul style="list-style-type: none"> <li>• Developer charges and government contributions are excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers</li> </ul>                                                                                                                                                                                                                                                                                                                           |
| 5                         | Tariffs                                      | <ul style="list-style-type: none"> <li>• Two-part tariffs, comprised of a fixed and variable charge</li> <li>• The water usage charge should have regard to the long run marginal cost of the supply</li> <li>• of additional water</li> <li>• Water charges should be differentiated by the cost of servicing different customers (for example, on the basis of location and service standards) where there are benefits in doing so and where it can be shown that these benefits outweigh the costs of identifying differences and the equity advantages of alternatives</li> </ul> |

Source: Aither, 2017, based on COAG 1994 and 2004 and SGWC, 2010.

Note: The NWI Pricing Principles provide further details on approaches to recovering capital expenditure and setting urban water tariffs, which are summarised in Appendix A and form part of the base standard.

**Figure 1 Overview of base pricing standard**

## Best practice standard

The best practice standard draws heavily from existing pricing commitments under the NWI and NWI Pricing Principles, on the basis that the objectives and actions agreed to in the NWI are still appropriate. However, the best practice standard includes an achievable suite of refinements beyond these commitments – designed to improve urban water pricing. For the most part, these changes are tailored to improve implementation of NWI objectives that have been implemented inconsistently; thereby resulting in perverse outcomes. An overview of the best practice pricing standard is presented in Figure 2.

|   | Pricing standard elements                                 | Details that determine the best practice pricing standard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Genuinely independent economic regulation                 | <ul style="list-style-type: none"> <li>Independent economic regulators set urban water prices</li> <li>Government does not intervene in the price setting process such that economic regulators are genuinely independent</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2 | Cost transparency                                         | <ul style="list-style-type: none"> <li>Capital and operating costs are tested for prudence and efficiency by independent regulators</li> <li>All costs that are linked to clear service standards which are defined in consultation with customers</li> <li>No arbitrary exclusion of costs or investments so that all costs incurred by water service providers are within the remit of the independent economic regulator</li> </ul>                                                                                                                                                                                                                  |
| 3 | Transparent cost sharing between customers and government | <ul style="list-style-type: none"> <li>Transparent cost sharing framework in place to allocate costs between government and customers (e.g. for dam safety costs, flood mitigation works, and policy development and recreation costs incurred by service providers)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                         |
| 4 | Full cost recovery                                        | <ul style="list-style-type: none"> <li>Charges are set to achieve full cost recovery, including a return on capital for all new expenditure*</li> <li>Manage the impact of rising water bills on low income households such as pensioners through mechanisms other than broad based water price reductions</li> <li>If a CSO is required (e.g. in smaller, regional schemes), it is reported publically and removed over time (where practical)</li> </ul>                                                                                                                                                                                              |
| 5 | Approaches to recovering capital expenditure              | <ul style="list-style-type: none"> <li>RAB (building blocks) calculated in accordance with NWI Pricing Principles**</li> <li>RAB value is not reset after initial RAB value is set</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 6 | Treatment of contributed assets                           | <ul style="list-style-type: none"> <li>Developer charges and government contributions are excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers (NWI Pricing Principles provide further details)</li> </ul>                                                                                                                                                                                                                                                                                                                                             |
| 7 | Tariffs and metering                                      | <ul style="list-style-type: none"> <li>Two-part tariffs with a single variable charge set at the marginal cost of supply</li> <li>Fixed charge becomes a balancing mechanism to meet the revenue requirement</li> <li>Costs disaggregated on the basis of location to the extent practical ***</li> <li>Where councils are amalgamated or otherwise rationalised (e.g. shared services), prices should not be rationalised (i.e. no further aggregation of prices)</li> <li>Individual metering for new developments (including in multi-unit complexes) to ensure more customers have the flexibility to reduce their bill by adjusting use</li> </ul> |

Source: Aither, 2017, based on COAG 1994 and 2004 and SGWC, 2010.

Note: \* The NWI Pricing Principles specify approaches to recover legacy capital expenditure. This guidance forms part of the best practice standard

\*\* The NWI Pricing Principles specify approaches to recover capital expenditure under the RAB approach. This guidance forms part of the best practice standard.

\*\*\* Movement away from postage stamp pricing including state-wide pricing policies should occur where benefits exceed costs.

**Figure 2 Overview of best practice pricing standard**

## Areas for further progress

### Current performance against the base standard

There has been notable progress against some COAG Water Reform Framework and NWI commitments in some areas. This includes introducing consumption-based tariffs and full cost recovery in most metropolitan areas; commitments for urban water pricing are still not being universally met. Key issues are:

- Independent bodies are not used to set prices for Power and Water Corporation in the Northern Territory, and distributor-retailers in South East Queensland. In South East Queensland, where the economic regulator has previously had an oversight role, these arrangements have been since been wound back. Pricing for Water Corporation in Western Australia also lacks transparency as government sets prices.
- During the millennium drought, previous state governments made policy decisions to put downward pressure on prices and bills. For example, in 2011, the NWC found that:

*“Major urban supply investments worth many billions of dollars were made directly by governments. The prudence of these major decisions was outside the purview of economic regulators.*

*Governments directly subsidised many investments, meaning that water customers did not face the full costs of water services.*

*Some governments reduced the required rate of return on assets and specified maximum price increases”.*

### Current performance against the best practice standard

The best practice standard includes a range of commitments already agreed under the NWI and therefore the assessment of progress under the base standard (described above) applies to the best practice standard. Key areas where further reform would be required, over and above reforms already agreed; to meet the best practice standard are:

- expanding the coverage of economic regulators:
  - The Queensland Competition Authority (QCA) and the Independent Pricing and Regulatory Tribunal (IPART) would need to be given remit to set prices for local councils in regional areas (bulk and retail),<sup>4</sup>
- implementing a transparent cost sharing framework to allocate costs between government and customers that can be applied consistently across the urban water sector,
- transitioning local councils in Queensland and New South Wales away from renewals annuities to a building blocks approach,
- removing Inclining Block Tariffs and replacing them with a single variable charge that reflects marginal cost,

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<sup>4</sup> While this would be desirable in principle, further consideration of the costs and benefits of this approach is required. This is discussed further in the reform pathway below.

- transitioning away from postage stamp pricing including state-wide pricing policies in South Australia and the Northern Territory and state-wide tariff cap policies in Western Australia where the benefits exceed costs.
- introducing legislation to ensure new, multi-unit dwellings are individually metered.

## Benefits of moving to the best practice standard

Figure 3 presents an overview of how NWI pricing objectives map to elements in the best practice standard and the outcomes that can be achieved by implementing the best practice standard.

|   | NWI objectives                                                                                                                                                              | Best practice element                                | Outcomes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | <ul style="list-style-type: none"> <li>• Clear separation of regulatory and policy roles for government</li> <li>• Customer protection against monopoly charging</li> </ul> | Genuinely independent economic regulation            | <ul style="list-style-type: none"> <li>• All expenditure gets tested for prudence and efficiency by an independent economic regulator (even during drought)</li> <li>• Bill increases are minimised to cover prudent and efficient service delivery</li> </ul>                                                                                                                                                                                                                                                      |
| 2 | <ul style="list-style-type: none"> <li>• Give effect to the principle of transparency</li> </ul>                                                                            | Cost transparency                                    | <ul style="list-style-type: none"> <li>• Customers have increased confidence that the costs they are being charged are reasonable</li> <li>• Customers can influence service standards</li> <li>• Water service providers are able to align planned expenditure with agreed service standards (thereby improving service delivery)</li> </ul>                                                                                                                                                                       |
| 3 | <ul style="list-style-type: none"> <li>• Give effect to the principle of user-pays .</li> </ul>                                                                             | Transparent cost sharing frameworks in place         | <ul style="list-style-type: none"> <li>• Customers have increased confidence that the costs they are being charged are reasonable and reflect costs they either cause to be incurred and/or derive a direct benefit from</li> </ul>                                                                                                                                                                                                                                                                                 |
| 4 | <ul style="list-style-type: none"> <li>• Full cost recovery to promote financial viability and maintain service standards.</li> </ul>                                       | Full cost recovery                                   | <ul style="list-style-type: none"> <li>• Water service providers are financially viable and able to access debt and equity to undertake new investment</li> <li>• Adequate infrastructure maintenance to prolong infrastructure life can occur</li> <li>• Incentives for private sector involvement in asset ownership</li> </ul>                                                                                                                                                                                   |
| 5 | <ul style="list-style-type: none"> <li>• Consistent approaches to recovering capital expenditure (including contributed assets)</li> </ul>                                  | Consistent application of building blocks approaches | <ul style="list-style-type: none"> <li>• By moving away from renewals annuities, water service providers do not have to forecast future capital expenditure for the purposes of price setting</li> <li>• Intergenerational equity issues associated with recovering future capital expenditure costs from current customer's are obviated</li> <li>• Less incentive to spend funds in a sinking fund unnecessarily</li> <li>• Customers don't pay for contributed assets that have already been paid for</li> </ul> |
| 6 | <ul style="list-style-type: none"> <li>• Consumption based pricing to send a signal to customers as to the cost of service delivery</li> </ul>                              | Two part tariffs and metering                        | <ul style="list-style-type: none"> <li>• Improve efficiency and equity by moving away from IBT's towards two-part tariffs with a single variable charge</li> <li>• Individual metering for new residences to ensure more customers have the flexibility to reduce their bill by adjusting use</li> <li>• More efficient water use prolongs investment in the next infrastructure augmentation which, once approved, pushes up prices</li> </ul>                                                                     |

Source: Aither, 2017

**Figure 3 Mapping water pricing objectives to actions and desired outcomes**

## Pathway to implement the best practice standard

Given that the base standard is defined as pricing commitments already agreed under the NWI, the pathway to implement the base standard is straightforward and involves jurisdictions implementing these commitments. However, given that the best practice standard is desirable, it is recommended that the best practice standard becomes the reform target. The reform pathway comprises three phases:

- **Phase 1: Agree on a best practice pricing standard:** Water pricing is the responsibility of states and territories and local governments and the first step is to agree to the best practice pricing standard in consultation with governments. As part of this process, decisions will need to be made on:
  - arrangements to improve pricing for regional urban water providers in New South Wales and Queensland including the extent to which local councils are subject to economic regulation. As an initial step, an approach whereby service providers with over 20,000 connections are regulated could be appropriate.
  - an appropriate cost sharing framework that can be applied consistently across jurisdictions<sup>5</sup>.
  - arrangements to transition away from postage stamp pricing including the extent to which developer charges and costs to augment trunk distribution infrastructure can play a role in differentiating prices for new development areas.
  - appropriate implementation timeframes.
- **Phase 2: Incorporate the standard into a national agreement with incentives for implementation:** Once developed, the national urban water pricing best practice standard should be agreed by all levels of government. An arrangement where COAG agrees to a broader urban water reform framework which incorporates the best practice pricing standard would be appropriate. The broader urban water reform agreement and the best practice pricing standard could be developed in the context of a new competition principles and reform agreement. Irrespective of the delivery vehicle, experience with mixed and inconsistent implementation of pricing under interjurisdictional agreements, means it will be critical that the pricing standard is binding (see implementation strategy below).
- **Phase 3: Agree on arrangements to assess and report on progress and to refine the best practice standard:** The final component of the reform pathway is to assess implementation of the best practice pricing standard and monitor whether outcomes are being achieved in order to refine the pricing standard under an adaptive management approach. Arguably, there is also a role for the Commonwealth in monitoring implementation progress and reporting on outcomes. The case for Commonwealth involvement in assessing implementation and reporting on outcomes is strengthened given that the Commonwealth does not have a direct role in service provision in the urban water sector. Including provision for future review and refinement of the best practice standard means that implementation can commence on a no regrets basis with provision for continued improvement, including as new challenges emerge and alternative approaches to pricing (such as scarcity pricing) develop.

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<sup>5</sup> NWI Principles for recovering water planning and management can provide useful guidance as a starting point.

## Implementation strategy

In principle, there is a strong case for the Australian Government to assume a leadership and coordination role to develop and oversee further reform in the urban water sector. However, it is acknowledged that resources or priorities may mean that this is not practical and although desirable, it is not essential that the Australian Government assumes such a role. Other models, including one where IA takes a leadership role or where the states and territories work together are also feasible. Irrespective of which organisation leads, the states and territories need to be involved and need to be convinced that reform is worth pursuing.

While progress has been made through inter-jurisdictional agreements such as the NWI, the success of National Competition Policy (NCP) incentive payments in driving micro-economic reform in the past provides a model implementation strategy that should be considered to drive implementation of the best practice pricing standard. IA's position as articulated in the Australian Infrastructure Plan (AIP) (2016) supports this view and stated that:

*The Australian Government can and should use its funding position to drive the implementation of wider reforms not specifically related to a project. Through Infrastructure Reform Incentives, the Australian Government would incentivise reforms by providing additional infrastructure investment – above existing projected allocations – in return for delivery of agreed reforms, as outlined in the AIP.*

If Reform Incentive Payments are utilised, the best practice standard can be used to shape the terms for Reform Incentive Payments. A model whereby payments are provided for new reforms only after demonstrating full implementation of previously agreed reforms may be appropriate. However, the Australian Government funding urban water infrastructure is not desirable in the context of NWI objectives for water pricing. An arrangement whereby progress in implementation of the best practice standard unlocks funding for infrastructure in other sectors is worthy of consideration.

# 1. Introduction

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## 1.1. Project context

Infrastructure Australia (IA) advises governments and infrastructure owners on nationally significant infrastructure challenges, reforms, and priorities through research, advice and advocacy. As part of this role, IA is developing a suite of reports designed to inform and promote reform in Australia's urban water sector. In 2016, IA published the *Australian Infrastructure Plan (AIP)* – the first of a series of 15-year rolling infrastructure plans, which recommended reforms to the urban water sector to deliver:

- more cost-effective and customer responsive water services including policy and institutional reform to promote competitive neutrality,
- genuinely independent economic regulation that is free from policy interventions designed to reduce water prices, or extract monopoly rents, and
- uniform drinking water quality and environmental regulations.

To build on these recommendations, IA engaged Aither to develop an overarching *Urban Water Reform Pathway* for Australia's urban water sector. Urban water pricing reform is one of a suite of proposed reforms as part of IA's *Urban Water Reform Pathway*. The *Urban Water Reform Pathway* includes the following actions for urban water pricing:

- Implement policy and institutional reforms designed to promote competitive neutrality in the metropolitan water sector including full cost recovery pricing which includes a commercial rate of return on capital.
- Revisit and improve the National Water Initiative (NWI) Pricing Principles. These principles provide too much flexibility for approaches to price setting that is inconsistent with the intent of the NWI and are not binding on jurisdictions NWI. Improving pricing requires a nationally consistent pricing standard.
- Obtain a national commitment from governments to manage the impact of rising water bills on low income households such as pensioners through mechanisms other than broad based water price reductions.

This project aims to build on these recommendations by establishing national urban water pricing standards and a pathway to implement these standards.

## 1.2. Project scope

The scope of this report is to:

- outline nationally consistent urban water pricing standards that support broader urban water sector reform (including a *base standard* premised on existing national pricing agreements and a *best-practice standard*),
- present the current state of play for urban water pricing by assessing progress and areas for improvement against the proposed national pricing standards), and
- develop an urban water pricing reform pathway that articulates how the standards could be implemented.

Urban water pricing is closely linked to economic regulation, however, a detailed review of economic regulation and national standards for economic regulation are addressed in a separate report. This report focusses on how prices are set by economic regulators rather than exploring the process and form of economic regulation.

### 1.3. Report outline

The remainder of this report is structured as follows:

**Section 2 – Urban water pricing – current policy** Provides a brief history of urban water pricing and identifies the objectives and potential benefits of improved urban water pricing arrangements.

**Section 3 – National urban water pricing standards:** Presents proposed national urban water pricing standards (base, and best practice).

**Section 4 – Performance against national urban water pricing standards:** Provides a high level summary of achievements and areas for improvement against the national urban water pricing standards outlined in Section 3.

**Section 5 - Urban water pricing reform pathway:** Steps out a pathway to implement the both the base and best practice pricing standards.

## 2. Urban water pricing: current policy context

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### 2.1. Overview of national urban water pricing policy

While setting urban water and wastewater prices is ultimately a matter for state and local governments who own (or regulate) urban water service providers, a number of national interjurisdictional policy agreements have shaped the way prices are currently set; most notably, the 1994 Council of Australian Governments (COAG) Water Reform Framework and 2004 Intergovernmental Agreement on a National Water Initiative (NWI) have shaped the way prices are currently set.

#### 2.1.1. 1994 COAG Water Reform Framework

The 1994 COAG Water Reform Framework was part of a suite of micro-economic reform measures precipitated by the Hilmer Report.<sup>6</sup> In relation to urban water pricing, jurisdictions agreed to:

- the principles of consumption-based pricing, full-cost recovery and desirably the removal of, cross-subsidies which are not consistent with efficient and effective service, use and provision
  - where cross subsidies continue to exist, they be made transparent,
- adopt, by no later than 1998, charging arrangements for water services comprising an access or connection component together with an additional component or components to reflect usage where this is cost-effective, and
- earn a real rate of return on the written-down replacement cost of publicly owned water and wastewater assets (COAG, 1994).

#### 2.1.2. National Water Initiative

The NWI is the most significant interjurisdictional policy agreement for water pricing. The objectives and desired outcomes for water pricing as specified in the NWI are:

- to promote the economically efficient and sustainable use of:
  - water resources
  - water infrastructure assets
  - government resources devoted to the management of water resources
- to ensure sufficient revenue streams to allow efficient delivery of the required services
- to facilitate the efficient functioning of water markets (including inter-jurisdictional water markets, and in both rural and urban settings)
- to give effect to the principles of user-pays and achieve pricing transparency in respect of water storage and delivery in irrigation systems

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<sup>6</sup> The Hilmer Report outlined recommendations to advance competition policy reform in Australia and underpinned National Competition Policy reforms.

- to avoid perverse or unintended pricing outcomes (COAG, 2004).

For pricing for water storage and delivery in urban areas, states and territories agreed that these objectives would be achieved by:

- implementing consumption based pricing
- achieving consistency in pricing policies that are applied across sectors and jurisdictions where entitlements are able to be traded
- achieve full-cost recovery for water services to ensure business viability and avoid monopoly rents through continued movement towards upper bound pricing (by 2008)<sup>78</sup>

Where full cost recovery is unlikely to be achieved in the long term and a Community Service Obligation (CSO) is deemed necessary, the size of the subsidy be reported publicly and, where practicable, jurisdictions consider alternative management arrangements aimed at removing the need for an ongoing CSO (COAG, 2004).

Under the NWI, jurisdictions also agreed to use independent bodies to set or review prices, or price setting processes, for water storage and delivery by government water service providers (COAG, 2004).

In practice, state and local governments and their economic regulators set prices in accordance with their own policies, with varying degrees of alignment with national objectives and principles.

### 2.1.3. National Water Initiative Pricing Principles

The NWI Pricing Principles were developed by the Steering Group on Water Charges (SGWC) and endorsed by the Natural Resource Management Ministerial Council in 2010. The NWI Pricing Principles provide further guidance for water pricing, beyond that which is specified in the NWI, and are relevant for framing the minimum national urban water pricing standard as they reflect pricing approaches already agreed by states and territories. Of most relevance for this report are the principles for:

- Recovering capital expenditure
- Urban water tariffs

The NWI Pricing Principles are discussed in more detail in Appendix A.

## 2.2. The role of urban water pricing

### 2.2.1. Full cost recovery

Water pricing plays an important role in the performance of the urban water sector. At the centre of NWI pricing policy is the requirement to balance full cost recovery while ensuring customers pay only

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<sup>7</sup> Under the NWI, upper bound pricing is “the level at which, to avoid monopoly rents, a water business should not recover more than the operational, maintenance and administrative costs, externalities, taxes or tax equivalent regimes, provision for the cost of asset consumption and cost of capital, the latter being calculated using a Weighted Average Cost of Capital (WACC)” (COAG, 2004).

<sup>8</sup> The NWI notes that “there will be some small community services that will never be economically viable but need to be maintained to meet social and public health obligations”.

for costs that are prudent and efficient. Achieving this balance is critical to ensure that on the one hand, water service providers are financially viable, and on the other hand, customers only pay costs that would prevail if urban water services were being delivered in a competitive environment.

Pricing that allows water service providers to recover the full costs of service delivery allows water service providers to fund future investment in new infrastructure and an appropriate level of investment in renewals and maintenance of existing infrastructure. For example, WSAA (2015) note that:

*the movement to recovery of full efficient costs means that many water businesses (particularly metropolitan urban water businesses) are now better placed to fund major new investments from their customers than they would have otherwise been.*

However, significant investment during the Millennium Drought and slower economic growth in general, means there are limits on the ability of publicly owned utilities to access capital for investment in infrastructure. For example, in 2013, WSAA noted that some water businesses have reached the stage where financial viability will be the dominant issue at their next price determinations. WSAA (2013) found that although the average utility gearing ratio in Australia of approximately 55 per cent is not high, the average obscures higher levels of debt in some utilities which exceed 100 per cent (debt to RAB ratio). Pricing that allows service providers to recover the costs of service provision is particularly important to improve financial performance for these businesses. Furthermore, future investment drivers including ageing assets, population growth and balancing supply and demand in the face of climate variability and change mean that full cost recovery is still critical to ensure the urban water sector can fund investments to meet these challenges.

Water pricing also plays a role in contributing to competitive neutrality. Pricing at full cost recovery, including a return on capital, is an important element of a range of reforms that could facilitate increased investment from the private sector.

### **2.2.2. Consumption based pricing**

Water pricing plays an important, demand-management role. There has been considerable progress in implementing two-part tariffs which include a variable charge linked to metered consumption. The NWC (2011) found that consumption based pricing has contributed to a “consistent pattern of reduced water consumption” that was particularly evident in the 1990s where there was a strong causal relationship between variable charges and reduced water consumption independent of “other factors such as water restrictions and conservation campaigns”.

By influencing demand, water prices can ‘push back’ large infrastructure augmentation investments. Once these investments are made, they flow through to bills and consumption-based pricing and metering therefore plays a role in minimising future bill increases.

### **2.2.3. Economic regulation and customer protection against monopoly charging**

The natural monopoly characteristics of large segments of the urban water supply chain require independent economic regulation to ensure that costs are transparent, prudent and efficient and that customers do not face monopoly water charges. This is particularly important to protect all households and particularly low income households, from bill increases. The role of economic regulation is discussed further in IA’s *National Standards for Economic Regulation Report*.

## 2.3. Urban water pricing: summary of relevant literature

### 2.3.1. National Water Commission's 2011 Review of Pricing Reform

In 2011, the National Water Commission investigated water pricing in a report titled: *Review of pricing reform in the Australian Water Sector*. In summary, the NWC's review found that "there has been good progress with the implementation of water pricing reforms, with major achievements in most key reform commitments and at least some progress in all jurisdictions". However, the NWC also found that "implementation has been patchy, with variation across jurisdictions, and between metropolitan urban water (and) regional urban water... services". According to the NWC, major achievements in the urban water sector in 2011 included:

- adoption of independent economic regulation in most jurisdictions (with the strongest arrangements in Victoria, parts of New South Wales and the Australian Capital Territory)
- movement towards, and achievement of, full cost recovery, particularly in metropolitan areas
- introduction of two-part tariffs and a price signal on water use in most urban areas
- with only isolated exceptions, the removal of free water allowances, property rates-based approaches and cross-subsidies for certain water users in the urban water sector (NWC, 2011).

However, the NWC (2011) identified the following as areas where further progress is required to meet commitments under the NWI and NWI Pricing Principles:

- Water businesses and their customers in many jurisdictions still do not benefit from fully independent economic regulation with strong, deterministic powers.
- There is limited effective price regulation and oversight in regional Queensland and New South Wales, where local councils still provide water services.... the costs of underinvestment and poor service quality are unlikely to be fully understood until reform begins and transparency increases.
- There are inconsistencies in tariffs, with some customers facing either very low or very high volumetric charges, particularly under Inclining Block Tariff (IBT) arrangements (NWC, 2011).

Furthermore, the NWC made two general observations regarding perverse outcomes as a result of pricing approaches which were particularly evident during the millennium drought:

1. The separation of policy, regulatory and service delivery roles, which is a fundamental tenet of national water reform dating back to COAG 1994, was undermined. For example:
  - a. Major urban infrastructure investments worth billions of dollars were made directly by governments outside the purview of economic regulators.
  - b. Governments directly subsidised many investments, meaning that water customers did not face the full costs of water services. This occurred either via direct subsidies or through arbitrary restrictions on the rate of return earned on assets or by specifying maximum price increases (NWC, 2011).
2. Governments and regulators seek to achieve multiple objectives in the tariff structure, including political, distributional, affordability, regional development and water conservation (as well as efficiency). For example, IBT structures with artificially high volumetric charges at higher levels of consumption were used to inefficiently restrain water use, while lower prices for initial water use were often used to achieve equity objectives. Such arrangements are still in place in many urban areas (NWC, 2011).

### 2.3.2. Productivity Commission's 2011 Inquiry into the urban water sector

The Productivity Commission's (PC) 2011 *Inquiry into Australia's urban water sector* found that despite some progress, many of the prescribed changes to pricing under the NWI have not been implemented. Along similar lines to the NWC's 2011 finding, the PC noted:

*'Policies and decisions about pricing and supply have become too politicised and have not been focused on providing services at lowest expected cost. These factors are leading to inadequate transparency...Deficiencies in the institutional and governance arrangements are, in turn, leading to policies and water supply decisions that are costly to consumers of water, wastewater and stormwater services.'*

The PC also reached the conclusion that the NWI Pricing Principles provide too much flexibility in implementation and do not necessarily support the objectives of economically efficient pricing (including those specified by the NWI itself).

### 2.3.3. Australian Government Review of Competition Policy

More recently, the Australian Government's 2015 *Review of Competition Policy* (The Harper Review) noted that:

- The NWI set out clear principles which, if fully implemented, would better reflect the cost of providing water, promote greater private involvement in the sector and establish more rigorous economic regulation.
- NWI principles remain appropriate and state and territory governments should continue to progress their implementation.
- A national regulatory body (the proposed Australian Council for Competition Policy) can play a role in improving pricing in jurisdictions through working with state and territory regulators to develop a national pricing framework, with potential application to all jurisdictions.
- The NWI encompasses the objectives of two reforms: independent economic regulation; and the institutional separation of service providers from the regulatory and policy functions of governments. However, in the Panel's view, neither of these objectives have been met on a nationally consistent basis. Both reforms are important to delivering efficient pricing where there is a natural monopoly or where markets are not well developed.

The Harper Review (2015) of Competition Policy recommended that:

*All governments should progress implementation of the principles of the National Water Initiative, with a view to national consistency. Governments should focus on strengthening economic regulation in urban water and creating incentives for increased private participation in the sector through improved pricing practices. State and territory regulators should collectively develop best-practice pricing guidelines for urban water, with the capacity to reflect necessary jurisdictional differences.*

### 2.3.4. Water Services Association of Australia Report on Reforming the Urban Water Sector

The Water Services Association of Australia's (WSAA) 2015 report on *Reforming the Urban Water Sector* found that the performance of the urban water sector is being impacted by "pricing approaches that preclude signalling for actual servicing costs, distorting competition and impeding efficient investment". Noting deficiencies in the NWI with respect to the urban water sector, WSAA called for

COAG to commit “to an expanded NWI—with a substantial focus on urban water sector productivity” (WSAA, 2015).

## 2.4. Urban water pricing: looking ahead

In summary, there is strong consensus for the need for further progress in urban water pricing. The Australian Government’s Competition Review finding that the NWIs principles for pricing remain appropriate<sup>9</sup>. The NWCs finding that good progress has been made against NWI commitments means that achieving desired outcomes for pricing is not out of reach.

However, many of the principles in the NWI were agreed in the 1994 COAG Water Reform Framework. Two decades later, there is still more work to be done to improve pricing to underpin the financial viability of service providers, provide better signals to customers on the costs of water provision and to improve competitive neutrality as one of a suite of elements to attract more investment from the private sector.

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<sup>9</sup> This statement refers to the overarching objectives of the NWI as opposed to the 2010 NWI Pricing Principles.

## 3. National urban water pricing standards

This section outlines a base and best practice standard to promote nationally consistent approaches for urban water pricing. The base and best practice standard have been developed within the context of existing approaches to pricing and exclusive of alternative approaches to pricing such as scarcity pricing. Reconciling current approaches with scarcity pricing and other implementation considerations are discussed in the reform pathway in Section 5.

### 3.1. Base standard

For the purpose of this report, the base standard has been defined as that already agreed under the NWI and NWI Pricing Principles. Defining the base standard in this manner is supported by the finding in the Australian Government's 2015 *Review of Competition Policy* which found that "NWI principles remain appropriate and state and territory governments should continue to progress their implementation".<sup>10</sup> An overview of the base pricing standard is presented in Figure 4.

|   | Pricing standard elements                    | Details that define the base pricing standard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Independent economic regulation              | <ul style="list-style-type: none"><li>• Use independent bodies to set or review prices, or price setting processes</li><li>• Government does not intervene in pricing (other than transparent CSOs)</li></ul>                                                                                                                                                                                                                                                                                                                                                           |
| 2 | Full cost recovery                           | <ul style="list-style-type: none"><li>• Charges are set to achieve full cost recovery, including a return on capital for all new expenditure</li><li>• If a CSO is required (e.g. in smaller, regional schemes), it is reported publically and removed over time (where practical)</li></ul>                                                                                                                                                                                                                                                                            |
| 3 | Approaches to recovering capital expenditure | <ul style="list-style-type: none"><li>• Renewals annuity or RAB (building blocks) as per NWI Pricing Principles</li><li>• RABs are not reset after initial line in the sand</li></ul>                                                                                                                                                                                                                                                                                                                                                                                   |
| 4 | Treatment of contributed assets              | <ul style="list-style-type: none"><li>• Developer charges and government contributions are excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers</li></ul>                                                                                                                                                                                                                                                                                                              |
| 5 | Tariffs                                      | <ul style="list-style-type: none"><li>• Two-part tariffs, comprised of a fixed and variable charge</li><li>• The water usage charge should have regard to the long run marginal cost of the supply of additional water</li><li>• Water charges should be differentiated by the cost of servicing different customers (for example, on the basis of location and service standards) where there are benefits in doing so and where it can be shown that these benefits outweigh the costs of identifying differences and the equity advantages of alternatives</li></ul> |

Source: Aither, 2017, based on COAG 1994 and 2004 and SGWC, 2010.

Note: The NWI Pricing Principles provide further details on approaches to recovering capital expenditure and setting urban water tariffs, which are summarised in Appendix A and form part of the base standard.

**Figure 4 Overview of base pricing standard**

### 3.2. Best practice pricing standard

The best practice standard draws heavily from existing pricing commitments under the NWI and NWI Pricing Principles on the basis that the objectives and actions agreed to in the NWI are still appropriate. However, the best practice standard includes an achievable suite of changes designed to improve urban water pricing. For the most part, these changes are tailored to improve implementation of NWI objectives that have been implemented inconsistently, resulting in perverse outcomes in some cases.

<sup>10</sup> This statement refers to the overarching objectives of the NWI as opposed to the 2010 NWI Pricing Principles.

Pursuing a best practice standard beyond that already committed under the NWI and NWI Pricing Principles is appropriate given that both the PC (2011) and NWC (2011) found that the NWI Pricing Principles included scope for departure from efficient approaches to urban water pricing. An overview of the base pricing standard is presented in Figure 5.

A summary of the differences between the base and best practice standard is presented in Table 1. The rationale for suggested improvements in the best practice standard is discussed below Table 1.

|   | Pricing standard elements                                 | Details that determine the best practice pricing standard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Genuinely independent economic regulation                 | <ul style="list-style-type: none"> <li>Independent economic regulators set urban water prices</li> <li>Government does not intervene in the price setting process such that economic regulators are genuinely independent</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2 | Cost transparency                                         | <ul style="list-style-type: none"> <li>Capital and operating costs are tested for prudence and efficiency by independent regulators</li> <li>All costs that are linked to clear service standards which are defined in consultation with customers</li> <li>No arbitrary exclusion of costs or investments so that all costs incurred by water service providers are within the remit of the independent economic regulator</li> </ul>                                                                                                                                                                                                                  |
| 3 | Transparent cost sharing between customers and government | <ul style="list-style-type: none"> <li>Transparent cost sharing framework in place to allocate costs between government and customers (e.g. for dam safety costs, flood mitigation works, and policy development and recreation costs incurred by service providers)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                         |
| 4 | Full cost recovery                                        | <ul style="list-style-type: none"> <li>Charges are set to achieve full cost recovery, including a return on capital for all new expenditure*</li> <li>Manage the impact of rising water bills on low income households such as pensioners through mechanisms other than broad based water price reductions</li> <li>If a CSO is required (e.g. in smaller, regional schemes), it is reported publically and removed over time (where practical)</li> </ul>                                                                                                                                                                                              |
| 5 | Approaches to recovering capital expenditure              | <ul style="list-style-type: none"> <li>RAB (building blocks) calculated in accordance with NWI Pricing Principles**</li> <li>RAB value is not reset after initial RAB value is set</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 6 | Treatment of contributed assets                           | <ul style="list-style-type: none"> <li>Developer charges and government contributions are excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers (NWI Pricing Principles provide further details)</li> </ul>                                                                                                                                                                                                                                                                                                                                             |
| 7 | Tariffs and metering                                      | <ul style="list-style-type: none"> <li>Two-part tariffs with a single variable charge set at the marginal cost of supply</li> <li>Fixed charge becomes a balancing mechanism to meet the revenue requirement</li> <li>Costs disaggregated on the basis of location to the extent practical ***</li> <li>Where councils are amalgamated or otherwise rationalised (e.g. shared services), prices should not be rationalised (i.e. no further aggregation of prices)</li> <li>Individual metering for new developments (including in multi-unit complexes) to ensure more customers have the flexibility to reduce their bill by adjusting use</li> </ul> |

Source: Aither, 2017, based on COAG 1994 and 2004 and SGWC, 2010.

Note: \*The NWI Pricing Principles specify approaches to recover legacy capital expenditure. This guidance forms part of the best practice standard

\*\* The NWI Pricing Principles specify approaches to recover capital expenditure under the RAB approach. This guidance forms part of the best practice standard. Implementation for local councils is discussed in Section 5.

\*\*\* Movement away from postage stamp pricing including state-wide pricing policies should occur where benefits exceed costs.).

**Figure 5 Overview of best practice pricing standard**

**Table 1 Summary of differences between the base and best practice pricing standard**

| Pricing element                                              | Base standard                                                                                                                                                                                                                                                                                                                                                                           | Best practice standard                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Independent economic regulation                           | Use independent bodies to set or review prices, or price setting processes                                                                                                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>Independent economic regulators set urban water prices</li> <li>Government cannot intervene in the price setting process such that economic regulators are genuinely independent</li> </ul>                                                                                                                                                                                                                        |
| 2. Cost transparency                                         | The NWI Pricing Principles require that “urban water tariffs should be set using a transparent methodology, through a process which seeks and takes into account public comment, or which is subject to public scrutiny” (SGWC, 2010). There are no other specific requirements for cost transparency under the NWI and therefore progress against the base standard is not applicable. | <ul style="list-style-type: none"> <li>Capital and operating costs are tested for prudence and efficiency by independent regulators</li> <li>All costs that are linked to clear service standards which are defined in consultation with customers</li> <li>No arbitrary exclusion of costs or investments so that all costs incurred by water service providers are within the remit of the independent economic regulator</li> </ul>                    |
| 3. Transparent cost sharing between customers and government | No guidance                                                                                                                                                                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>Transparent cost sharing framework in place to allocate costs between government and customers (e.g. for dam safety costs, flood mitigation works, and policy development and recreation costs incurred by service providers)</li> </ul>                                                                                                                                                                           |
| 4. Full cost recovery                                        | <ul style="list-style-type: none"> <li>Charges are set to achieve full cost recovery, including a return on capital for all new expenditure</li> <li>If a CSO is required (e.g. in smaller, regional schemes), it is reported publically and removed over time (where practical)</li> </ul>                                                                                             | <ul style="list-style-type: none"> <li>Charges are set to achieve full cost recovery, including a return on capital for all new expenditure</li> <li>Manage the impact of rising water bills on low income households such as pensioners through mechanisms other than broad based water price reductions</li> <li>If a CSO is required (e.g. in smaller, regional schemes), it is reported publically and removed over time (where practical)</li> </ul> |
| 5. Approaches to                                             | <ul style="list-style-type: none"> <li>Renewals annuity or RAB (building blocks) as per NWI Pricing</li> </ul>                                                                                                                                                                                                                                                                          | <ul style="list-style-type: none"> <li>RAB (building blocks) calculated in accordance with</li> </ul>                                                                                                                                                                                                                                                                                                                                                     |

| Pricing element                                                                  | Base standard                                                                                                                                                                                                                                                                                                                          | Best practice standard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| recovering capital expenditure                                                   | Principles                                                                                                                                                                                                                                                                                                                             | NWI Pricing Principles (i.e. move away from renewals annuity where they are still in place)                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 6. Treatment of contributed assets (same across base and best practice standard) | <ul style="list-style-type: none"> <li>Developer charges and government contributions are excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers (NWI Pricing Principles provide further details)</li> </ul>                            | <ul style="list-style-type: none"> <li>Developer charges and government contributions are excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers (NWI Pricing Principles provide further details)</li> </ul>                                                                                                                                                                                                                                                     |
| 7. Tariffs and metering                                                          | <ul style="list-style-type: none"> <li>On economic efficiency grounds, the water usage charge should comprise only a single usage charge. However, governments may decide on more than one tier for the water usage charge for policy reasons</li> <li>Costs disaggregated on the basis of location to the extent practical</li> </ul> | <ul style="list-style-type: none"> <li>Two-part tariffs with a single variable charge set at the marginal cost of supply</li> <li>Costs disaggregated on the basis of location to the extent practical</li> <li>Where councils are amalgamated or otherwise rationalised (e.g. shared services), prices should not be rationalised (i.e. no further aggregation of prices)</li> <li>Individual metering for new developments (including in multi-unit complexes) to ensure more customers have the flexibility to reduce their bill by adjusting use</li> </ul> |

Source: Aither, 2017. Some elements of the best practice standard derived from COAG 1994 and 2004 and SGWC, 2010.

### 3.2.1. Rationale for best practice standard elements

The following provides the rationale for the best practice standard focussing on elements where there is divergence between the base and best practice pricing standard.

#### *Genuinely independent economic regulation*

The best practice standard goes beyond NWI commitments to specify that independent economic regulators are genuinely independent and set, rather than review, urban water prices<sup>11</sup>.

There are variations in the way that jurisdictions have implemented NWI commitments to have an independent body set or review prices, or price setting processes. For example, the role of economic regulators ranges from price monitoring to setting maximum revenue requirements (with prices set by government to achieve the revenue requirement) to price determinations. In 2011, the PC advocated for a shift to price monitoring noting that it can achieve similar outcomes to price determination or recommendations while providing “greater flexibility, which can be beneficial as it enables utilities to more readily adapt and improve”.

While there are advantages and disadvantages of various types of economic regulation, on balance, price determination is preferred on the basis that price determination is more amenable to a genuinely independent economic regulatory framework that balances full cost recovery with price protection for customers. For example, the ACCC (2015) argue that price monitoring:

- has failed to prevent monopoly charging in other infrastructure sectors
- provides little incentive for efficient investment and service delivery<sup>12</sup>.

The requirement for genuine independence in economic regulation aligns with long-standing objectives and principles for full cost recovery, transparency and the separation of policy and regulatory functions outlined in the NWI. Committing to genuinely independent economic regulation should prevent a reoccurrence of the issues identified by the NWC during the millennium drought where governments intervened in price setting processes for political reasons (see Section 2.3.1).

#### *Cost transparency*

The NWI Pricing Principles require that “urban water tariffs should be set using a transparent methodology, through a process which seeks and takes into account public comment, or which is subject to public scrutiny” (SGWC, 2010). There are no other specific requirements for cost transparency under the base standard.

The best practice standard provides increased specificity to achieve pricing transparency, which, under the NWI, is specified as a desired outcome for water storage and delivery in irrigation systems. The best practice standard proposes actions to achieve this outcome for water pricing in urban water networks. Specifically, the requirements to achieve cost transparency are to ensure that:

- capital and operating costs are tested for prudence and efficiency by independent economic regulators,

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<sup>11</sup> Or maximum revenues.

<sup>12</sup> See for example: <https://www.accc.gov.au/speech/how-did-the-light-handed-regulation-of-monopolies-become-no-regulation>.

- all costs are linked to clear service standards which are defined in consultation with customers, and
- there is no arbitrary exclusion of costs or investments from the price setting process so that all costs incurred by water service providers are within the remit of the independent economic regulator.

As a package, these actions are designed to ensure that water prices are calculated in a transparent manner that involves customers in decisions about trade-offs between cost and service standards.

### **Full cost recovery**

Under the best practice standard, there is an additional requirement over and above current commitments, to implement IA's recommendation in the AIP to manage the impact of rising water bills on low income households such as pensioners, through mechanisms other than broad based water price reductions. This is designed to ensure that customers face the full cost of service provision to provide a price signal to promote more efficient water use. The PC (2011) came to a similar conclusion in relation to concessions for low income households and recommended that rebates on the fixed component of water bills would be more efficient.

### **Transparent cost sharing between customers and government**

Urban water businesses provide services outside traditional water supply that warrant consideration of cost sharing. For example, dams provide flood mitigation and recreation services, the costs of which, may be shared between customers and government (acting on behalf of the broader community). Cost sharing forms part of pricing considerations for rural water service providers where beneficiaries (or impactors) of services such as flood mitigation are broader than irrigation customers. Cost sharing considerations are less prevalent in the urban water sector.

Contemporary policy debate which includes calls for a shift in investment away from disaster recovery towards disaster mitigation, could have material cost impacts for urban water service providers (e.g. for flood mitigation or activities designed to reduce the impact on water supply as a result of bush fires). The PC's 2015 Natural Disaster Funding Inquiry notes that:

*Responsibilities for funding natural disaster mitigation are spread across households, businesses, all levels of government, insurers and the broader community. In cases where mitigation provides private benefits but requires some collective action, governments should pursue cost-recovery options. Such an approach should allocate mitigation costs to the party that can most influence the level of risk and/or those who benefit from its reduction*

The water sector has generally adopted an impactor pays approach rather than a beneficiary pays approach (see for example, NWI Pricing Principles for water planning and management). While it is beyond the scope of this report to consider the detailed approach to cost sharing, it is important that a transparent cost sharing framework underpins urban water pricing in order to achieve NWI objectives of user-pays and transparent pricing. Section 5 provides further guidance on developing and implementing a cost sharing framework.

### **Approaches to recovering capital expenditure (renewals annuity versus a RAB approach)**

The NWI Pricing Principles (and base standard) provide flexibility for water service providers to use a renewals annuity or a RAB (building blocks) approach to recover capital expenditure. While metropolitan water service providers have moved away from a renewals annuities approach and have adopted a RAB approach, renewals annuities are still used by local councils in New South Wales and Queensland.

A renewals annuity seeks to collect revenue to fund future capital expenditure. In principle, and if implemented appropriately, a renewals annuity can deliver the same outcomes as a RAB approach including a positive return on assets (SGWC, 2010). However, as the NWI SGWC (2007) note, the annuity term “should capture a full asset cost cycle for the business”. Given that water assets are generally long-lived, it is inherently difficult to accurately estimate expenditure over the long-term. The annuity term needs to take into account the confidence that businesses have in forecasts, the accuracy of which will necessarily decrease as the annuity term increases (NWI SGWC, 2007).

Difficulties associated with accurately forecasting expenditure over the long-term mean that an annuity approach is more likely to either materially over or underestimate expenditure. Furthermore, recovering future costs from current customer’s raises important intergenerational equity issues as current users pay for services that deliver benefits for future users. Renewals annuities can also:

- incentivise investment in assets that are not prudent as funds are collected ahead of time and held in a sinking fund, and
- fail to capture future savings associated with new technology or new approaches to rebalance preventative maintenance as opposed to corrective maintenance.

Conversely, the RAB approach is designed to recover the efficient actual costs of new investments once they have been incurred. A return of capital recovers asset depreciation over the life of the asset while a return on capital provides the operator with a return on capital invested. The key benefit of the RAB approach versus a renewals annuity approach is that difficulties forecasting expenditure over the long-term under an annuity approach are obviated.

The best practice standard requires movement away from renewals annuities, noting that jurisdictions, particularly in New South Wales and Queensland, will need to consider how a RAB (building blocks) approach can be applied for water and wastewater businesses owned and operated by local councils (refer to Section 5). Consistent with NWI Principles, once an initial RAB value has been determined, it should not be reset.

## **Tariffs and metering**

### *Inclining block tariffs*

In a number of jurisdictions, urban water tariffs are structured using an IBT such that water usage above a pre-defined usage threshold is charged at a higher price per Kilolitre. The threshold for Tier one and Tier 2 varies across jurisdictions and between service providers. Some water service providers have more than two tiers.

Ostensibly, IBTs are designed to encourage lower water use however, in 2008, the NWC advocated for IBTs to be removed on the basis that they are “inequitable as they disadvantage households with larger numbers...and often result in a departure from marginal cost pricing” (NWC, 2008). The best practice standard requires movement away from IBTs to a single variable charge set at marginal cost.

### *Postage stamp pricing*

Postage stamp pricing is a pricing approach whereby customers, usually within a geographic area serviced by a government-owned water service provider, pay a uniform price which generally reflects the average cost of service provision to that geographic area. For example, a typical residential customer serviced by Sydney Water pays the same fixed and variable charge regardless of whether they live, despite variations in costs to service different suburbs. In South Australia, Tasmania, the Northern Territory and Western Australia, state-wide postage stamp pricing is in place<sup>13</sup>.

Postage stamp pricing is a long-standing, common approach to pricing in the urban water sector. While postage stamp pricing is advantageous in that it is simple to administer and easy for customers

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<sup>13</sup> A state-wide tariff cap policy is in place in Western Australia.

to understand, has advantages in terms of administrative simplicity, postage stamp pricing masks the true costs of service delivery and may impede competition. For example, IPART (2014) notes that:

*Most growth areas are on the urban fringe, which is higher than average cost to service. As such, the incumbent business is able to service the growth area at the postage stamp price, using its large customer base to subsidise growth expenditure, while new entrants must recoup all costs through charges to its new customers. This creates a barrier to competitive entry.*

On balance, there is merit in transitioning away from postage stamp pricing including state-wide pricing policies where benefits exceed costs. One possible approach is to use developer charges and differentiated tariffs for new residential areas which include the costs of augmenting trunk distribution infrastructure to service new development areas. This arrangement provides price certainty for current customers while enabling a differentiated price signal on the cost of service provision to be sent to customers in new developments.

### *Metering*

Consumption-based tariffs rely on effective metering to facilitate price signals for customers. While most detached dwellings are individually metered, a lot of multi-unit complexes and attached dwellings are not individually metered. In order to improve the effectiveness of two-part tariffs, the best practice standard requires individual metering for new developments (including in multi-unit complexes) to ensure more customers have the flexibility to reduce their bill by adjusting use. There has been some progress against this standard, for example in Queensland, where the Queensland Plumbing and Wastewater Code made it mandatory to install sub-meters in all new multi-unit developments and some non-residential premises on 1 January 2008.

## 4. Performance against national urban water pricing standards

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In this section, current water pricing approaches are assessed in order to establish what changes are required to achieve the base and best practice standard. Rather than presenting a detailed 'stocktake' of current urban water pricing arrangements, the focus of this section is on identifying themes for further pricing reform to move towards the proposed standards. A detailed state-by-state summary of progress against the base and best practice standard is presented in Appendix B and Appendix C respectively.

### 4.1. Current performance against the base standard

There has been notable progress against some COAG Water Reform Framework and NWI commitments in some areas. This includes introducing consumption-based tariffs and full cost recovery in most metropolitan areas; commitments for urban water pricing are still not being universally met. Key issues are:

- Independent bodies are not used to set prices for Power and Water Corporation in the Northern Territory, and distributor-retailers in South East Queensland. In South East Queensland, where the economic regulator has previously had an oversight role, these arrangements have been since been wound back. Pricing for Water Corporation in Western Australia also lacks transparency as government sets prices.
- During the millennium drought, previous state governments made policy decisions to put downward pressure on prices and bills. For example, in 2011, the NWC found that:

*“Major urban supply investments worth many billions of dollars were made directly by governments. The prudence of these major decisions was outside the purview of economic regulators.*

*Governments directly subsidised many investments, meaning that water customers did not face the full costs of water services.*

*Some governments reduced the required rate of return on assets and specified maximum price increases”.*

The actions by some past government to intervene in pricing came at a time where infrastructure investment was at historic highs. This runs counter to NWI outcomes for transparency and full cost recovery and underscores the findings of the Australian Government's Competition Policy Review that independent economic regulation and the institutional separation of service providers from the regulatory and policy functions of governments is not being met. Decisions to exclude some investment decisions from prudence and efficiency tests by the economic regulator, potentially contravenes customer protection against monopoly charging. A summary of current performance for urban water pricing and a state-by state assessment against the base standard is presented in Table 2 and Table 3 respectively.

**Table 2 Summary of current performance against the base pricing standard**

| Pricing element                 | Base standard                                                                                                                                                                                                                                                                               | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Independent economic regulation | Use independent bodies to set or review prices, or price setting processes                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>The base standard for economic regulation is currently being met in New South Wales<sup>14</sup>, Victoria, Tasmania, South Australia and the Australian Capital Territory.</li> <li>Currently, there is no independent body involved in setting or reviewing prices in the Northern Territory. In Queensland, the Queensland Competition Authority has been tasked with recommending bulk water prices for south east Queensland's bulk water service provider (Seqwater) for the period 1 July 2018 to 30 June 2021. Retail water prices are set by the five distributor-retailers with no independent oversight<sup>15</sup>.</li> </ul>                                                                                                                                                                                                                        |
| Full cost recovery              | <ul style="list-style-type: none"> <li>Charges are set to achieve full cost recovery, including a return on capital for all new expenditure</li> <li>If a CSO is required (e.g. in smaller, regional schemes), it is reported publically and removed over time (where practical)</li> </ul> | <ul style="list-style-type: none"> <li>Generally, there has been movement towards, and achievement of, full cost recovery, particularly in metropolitan areas (NWC, 2011).</li> <li>However, a lack of transparency in Western Australia, the Northern Territory and South East Queensland means it is not possible to determine whether full cost recovery is being met or exceeded.</li> <li>Cost recovery is not being achieved for bulk water provided to regional councils by SunWater.</li> <li>DPI Water (2017) reported that all local councils in New South Wales are achieving full cost recovery although the state-wide median Economic Real Rate of Return was 2.3 per cent for water supply in 2015-16 which suggests a return on capital consistent with a WACC may not be in place for all councils.</li> <li>The PC (2011) made a similar finding, noting that "a significant</li> </ul> |

<sup>14</sup> Prices in regional urban areas in New South Wales are set by Council's in accordance with the NSW Government's *2007 Best-Practice Management of Water Supply and Sewerage Guidelines*. The NWI notes that independent bodies are used on a 'case by case' basis and the absence of economic regulation for local councils in New South Wales and Queensland is not considered to be inconsistent with the NWI.

<sup>15</sup> In the past, the Queensland Competition Authority had a price monitoring role for these water service providers.

| Pricing element                                                               | Base standard                                                                                                                                                                                                                                                                                               | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                               |                                                                                                                                                                                                                                                                                                             | number of regional water utilities in New South Wales, Victoria, Queensland and Tasmania <sup>16</sup> are not fully recovering costs (including capital costs). Based on publicly available financial indicators, the incidence of under-recovery of costs is more pronounced than a number of government agencies suggest, due to the way that full cost recovery is defined and assessed by those agencies”.                                                                                                                                                                                                                                                                                                                                                                                            |
| Approaches to recovering capital expenditure                                  | <ul style="list-style-type: none"> <li>Renewals annuity or RAB (building blocks) as per NWI Pricing Principles</li> </ul>                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>With the exception of Western Australia and the Northern Territory and retail service providers in Queensland, where the approach to setting prices and recovering capital expenditure is not transparent, RAB (building blocks) approaches are used in metropolitan areas<sup>17</sup>.</li> <li>Renewals annuities are used for recovering capital expenditure by local councils in New South Wales where 30-year renewals plan are developed in accordance with the <i>2007 Best-Practice Management of Water Supply and Sewerage Guidelines</i>. DPI Water is preparing tools and guidance materials on identifying and implementing 30-year renewals plans (DPI Water, 2017).</li> <li>Renewals annuities are used by local councils in Queensland.</li> </ul> |
| Treatment of contributed assets (same across base and best practice standard) | <ul style="list-style-type: none"> <li>Developer charges and government contributions are excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers (NWI Pricing Principles provide further details)</li> </ul> | <ul style="list-style-type: none"> <li>Contributed assets are deducted from the RAB in metropolitan areas where economic regulators have a role.</li> <li>It is unclear how contributed assets are treated in Western Australia, the Northern Territory and for distributor-retailers in Queensland.</li> <li>In regional Queensland and New South Wales, it is unclear how contributed assets are treated, noting that NWI Principles require a return of capital (depreciation) to be recovered for contributed assets (SGWC, 2010).</li> </ul>                                                                                                                                                                                                                                                          |

<sup>16</sup> Structural reform in Tasmania including a role for the Tasmanian Office of the Economic Regulator means prices are transitioning to full cost recovery.

<sup>17</sup> The SGWC (2007) has reported that a building blocks approach was used in the Northern Territory and Western Australia in 2007. Previous price monitoring by the QCA indicates distributor-retailers in south east Queensland have used a building blocks approach in the past.

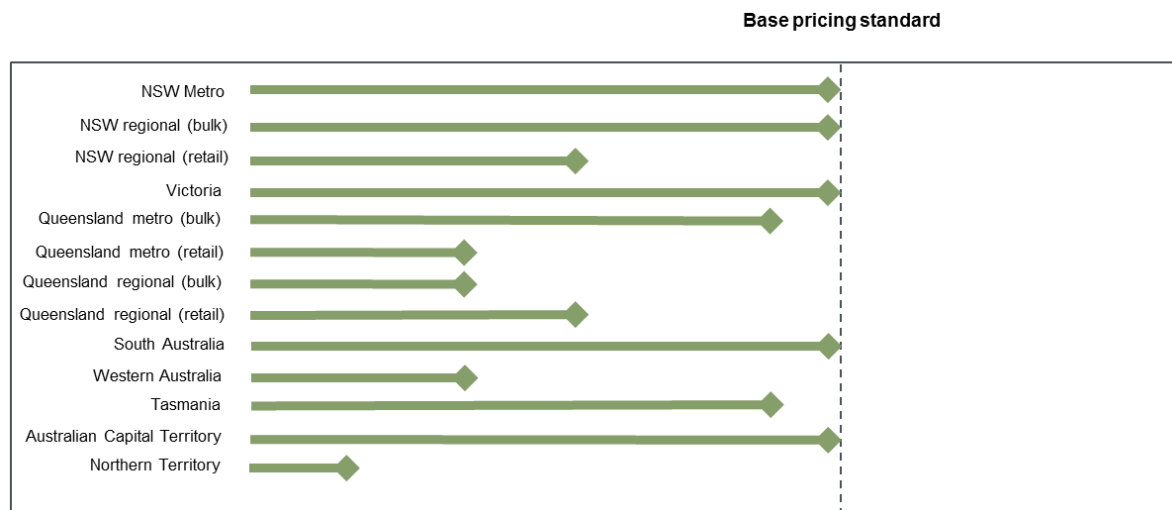
| Pricing element | Base standard                                                                                                                                                                                                                                                                                   | Current performance                                                                                                                                                                                                                                          |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tariffs         | <ul style="list-style-type: none"> <li>• Consumption based pricing</li> <li>• On economic efficiency grounds, the water usage charge should comprise only a single usage charge. However, governments may decide on more than one tier for the water usage charge for policy reasons</li> </ul> | <ul style="list-style-type: none"> <li>• The NWI Pricing Principles provide flexibility for a range of tariff structures provided that a consumption-based charge is levied. The base standard is being met by all urban water service providers.</li> </ul> |

**Table 3 State-by-state performance against the base pricing standard**

| Jurisdiction                 | Independent economic regulation | Full cost recovery       | Approaches to recovering capital expenditure | Treatment of contributed assets | Tariffs and metering |
|------------------------------|---------------------------------|--------------------------|----------------------------------------------|---------------------------------|----------------------|
| NSW metro                    | ✓<br>✓                          | ✓<br>✓                   | ✓<br>✓                                       | ✓<br>✓                          | ✓<br>✓               |
| NSW regional (bulk)          | ✓<br>✓                          | ✓<br>✓                   | ✓<br>✓                                       | ✓<br>✓                          | ✓<br>✓               |
| NSW regional (retail)        | ✓<br>✓                          |                          | ✓<br>✓                                       | Insufficient information        | ✓<br>✓               |
| Victoria                     | ✓<br>✓                          | ✓<br>✓                   | ✓<br>✓                                       | ✓<br>✓                          | ✓<br>✓               |
| Queensland metro (bulk)      | ✓<br>✓                          | ✓                        | ✓<br>✓                                       | ✓<br>✓                          | ✓<br>✓               |
| Queensland metro (retail)    |                                 | Insufficient information | ✓<br>✓                                       | Insufficient information        | ✓<br>✓               |
| Queensland regional (bulk)   |                                 |                          | ✓<br>✓                                       | Insufficient information        | ✓<br>✓               |
| Queensland regional (retail) | ✓<br>✓                          | Insufficient information | ✓<br>✓                                       | Insufficient information        | ✓<br>✓               |
| South Australia              | ✓<br>✓                          | ✓<br>✓                   | ✓<br>✓                                       | ✓<br>✓                          | ✓<br>✓               |
| Western Australia            | ✓<br>✓                          | Insufficient information | Insufficient information                     | Insufficient information        | ✓<br>✓               |
| Tasmania                     | ✓<br>✓                          | ✓                        | ✓<br>✓                                       | ✓<br>✓                          | ✓<br>✓               |
| ACT                          | ✓<br>✓                          | ✓<br>✓                   | ✓<br>✓                                       | ✓<br>✓                          | ✓<br>✓               |
| Northern Territory           |                                 | Insufficient information | Insufficient information                     | Insufficient information        | ✓<br>✓               |

Notes: Double ticks indicate that the standard is being fully met. A single tick indicates the standard is being partially met. No ticks indicate the standard is not being met. A lack of transparency in some jurisdictions means it is difficult to determine performance against the base standard through a desktop approach. Where this is the case, “insufficient information” is noted. Regional retail water in NSW and Queensland has been assessed as meeting the standard for independent economic regulation as the NWI provides flexibility for independent entities to set or review prices on case-by-case basis. Further details to support the findings are provided in Appendix B.

A state-by-state summary of performance against the base standard is presented in Figure 6.



Notes: The base standard comprises five key elements, each of which has been assigned an equal weighting in the diagram. A lack of transparency in some jurisdictions means it is difficult to determine performance against the base standard through a desktop approach. Where there is insufficient information (refer to Table 3), it has been assumed the standard is not being met. Further details are provided in Appendix B.

**Figure 6 Summary of state-by-state performance against the base pricing standard**

## 4.2. Current performance against the best practice standard

The best practice standard includes a range of commitments already agreed under the NWI and therefore the assessment of progress under the base standard (described above in Section 4.1) applies to the best practice standard. The best practice standard includes a range of commitments already agreed under the NWI and therefore the assessment of progress under the base standard (described above) applies to the best practice standard. Key areas where further reform would be required, over and above reforms already agreed; to meet the best practice standard are:

- expanding the coverage of economic regulators:
  - The Queensland Competition Authority and IPART would need to be given remit to set prices for local councils in regional areas (bulk and retail),<sup>18</sup>
- implementing a transparent cost sharing framework to allocate costs between government and customers that can be applied consistently across the urban water sector,

<sup>18</sup> While this would be desirable in principle, further consideration of the costs and benefits of this approach is required. This is discussed further in the reform pathway below.

- transitioning local councils in Queensland and New South Wales away from renewals annuities to a building blocks approach,
- removing Inclining Block Tariffs and replacing them with a single variable charge that reflects marginal cost,
- transitioning away from postage stamp pricing including state-wide pricing policies in South Australia and the Northern Territory and state-wide tariff cap policies in Western Australia where the benefits exceed costs.
- introducing legislation to ensure new, multi-unit dwellings are individually metered.

A summary of current performance and a state-by-state assessment against the best practice standard is presented in Table 4 and Table 5 respectively.

**Table 4 Summary of current performance against the best practice pricing standard**

| Pricing element                                              | Best practice standard                                                                                                                                                                                                                                                                                                                                                                                                                 | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Independent economic regulation                           | <ul style="list-style-type: none"> <li>Independent economic regulators set urban water prices</li> <li>Government does not intervene in the price setting process such that economic regulators are genuinely independent</li> </ul>                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>The best practice standard is currently being met in Victoria, the Australian Capital Territory, Tasmania, South Australia and metropolitan areas in New South Wales.</li> <li>The Queensland Competition Authority would need to be given powers to set prices for local councils in regional areas and for bulk water services provided to regional councils by SunWater.</li> <li>IPART would need to be given powers to set prices for local councils in regional areas currently serviced by local water utilities (councils)</li> <li>Currently, there is no independent body involved in setting or reviewing prices in the Northern Territory and for the five distributor-retailers in South East Queensland. In Western Australia, prices are set by government.</li> </ul> |
| 2. Cost transparency                                         | <ul style="list-style-type: none"> <li>Capital and operating costs are tested for prudence and efficiency by independent regulators</li> <li>All costs that are linked to clear service standards which are defined in consultation with customers</li> <li>No arbitrary exclusion of costs or investments so that all costs incurred by water service providers are within the remit of the independent economic regulator</li> </ul> | <ul style="list-style-type: none"> <li>The best practice standard for testing costs is being achieved where economic regulators have a role in price or revenue setting (i.e. metropolitan New South Wales, Victoria, the ACT, South Australia, Tasmania and bulk water prices in South East Queensland). There are no such tests in the Northern Territory and regional areas in New South Wales and Queensland. In Western Australia, the economic regulator has an advisory role only.</li> <li>There were issues, particularly during the drought, where the costs of large water supply investments were not scrutinised by economic regulators.</li> </ul>                                                                                                                                                             |
| 3. Transparent cost sharing between customers and government | <ul style="list-style-type: none"> <li>Transparent cost sharing framework in place to allocate costs between government and customers (e.g. for dam safety costs, flood mitigation works, and policy development and recreation costs incurred by service providers)</li> </ul>                                                                                                                                                        | <ul style="list-style-type: none"> <li>Cost sharing forms part of pricing considerations for rural water service providers where beneficiaries of services such as flood mitigation are broader than irrigation customers. Cost sharing considerations are less prevalent in the urban water sector. A consistent cost sharing framework would need to be developed for the urban water sector.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                   |

| Pricing element                                 | Best practice standard                                                                                                                                                                                                                                                                                                                                                                                                                                    | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4. Full cost recovery                           | <ul style="list-style-type: none"> <li>Charges are set to achieve full cost recovery, including a return on capital for all new expenditure</li> <li>Manage the impact of rising water bills on low income households such as pensioners through mechanisms other than broad based water price reductions</li> <li>If a CSO is required (e.g. in smaller, regional schemes), it is reported publically and removed over time (where practical)</li> </ul> | <ul style="list-style-type: none"> <li>Generally, there has been movement towards, and achievement of, full cost recovery, particularly in metropolitan areas (NWC, 2011).</li> <li>However, a lack of transparency in Western Australia, the Northern Territory and South East Queensland means it is not possible to determine whether full cost recovery is being met or exceeded.</li> <li>Cost recovery is not being achieved for bulk water provided to regional councils by SunWater.</li> <li>DPI Water (2017) reported that all local councils in New South Wales are achieving full cost recovery although the state-wide median Economic Real Rate of Return was 2.3 per cent for water supply in 2015-16 which suggests a return on capital consistent with a WACC may not be in place for all councils.</li> <li>The PC (2011) made a similar finding, noting that “a significant number of regional water utilities in New South Wales, Victoria, Queensland and Tasmania<sup>19</sup> are not fully recovering costs (including capital costs). Based on publicly available financial indicators, the incidence of under-recovery of costs is more pronounced than a number of government agencies suggest, due to the way that full cost recovery is defined and assessed by those agencies”.</li> </ul> |
| 5. Approaches to recovering capital expenditure | <ul style="list-style-type: none"> <li>RAB (building blocks) calculated in accordance with NWI Pricing Principles (i.e. move away from renewals annuity where they are still in place)</li> </ul>                                                                                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>With the exception of Western Australia and the Northern Territory and retail service providers in Queensland, where the approach to setting prices and recovering capital expenditure is not transparent, RAB (building blocks) approaches are used in metropolitan areas.</li> <li>Renewals annuities are used for recovering capital expenditure by local councils in New South Wales where 30-year renewals plan are developed in accordance with the <i>2007 Best-Practice Management of Water Supply and Sewerage Guidelines</i>. DPI Water are preparing tools and guidance materials on identifying and implementing 30-year</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

<sup>19</sup> Structural reform in Tasmania including a role for the Tasmanian Office of the Economic Regulator means prices are transitioning to full cost recovery.

| Pricing element                                                                  | Best practice standard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <p>renewals plans (DPI Water, 2017).</p> <ul style="list-style-type: none"> <li>Renewals annuities are used by local councils in Queensland.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 6. Treatment of contributed assets (same across base and best practice standard) | <ul style="list-style-type: none"> <li>Developer charges and government contributions are excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers (NWI Pricing Principles provide further details)</li> </ul>                                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>Contributed assets are deducted from the RAB in metropolitan areas where economic regulators have a role.</li> <li>It is unclear how contributed assets are treated in Western Australia, the Northern Territory and for distributor-retailers in Queensland.</li> <li>In regional Queensland and New South Wales, it is unclear how contributed assets are treated, noting that NWI Principles require a return of capital (depreciation) to be recovered for contributed assets (SGWC, 2010).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 7. Tariffs and metering                                                          | <ul style="list-style-type: none"> <li>Two-part tariffs with a single variable charge set at the marginal cost of supply</li> <li>Costs disaggregated on the basis of location to the extent practical</li> <li>Where councils are amalgamated or otherwise rationalised (e.g. shared services), prices should not be rationalised (i.e. no further aggregation of prices)</li> <li>Individual metering for new developments (including in multi-unit complexes) to ensure more customers have the flexibility to reduce their bill by adjusting use</li> </ul> | <ul style="list-style-type: none"> <li>Inclining Block Tariffs are still prevalent across many jurisdictions although they have been abolished for major metropolitan service providers in New South Wales. There are also issues with the structure of tariffs. For example, the New South Wales Government Guidelines require residential water usage charges to be set to recover at least 75 per cent of residential revenue (New South Wales Government, 2007)<sup>20</sup>. This is an arbitrary requirement which is inconsistent with marginal cost pricing.</li> <li>Postage stamp pricing is applied almost universally across a service provider's customer base.</li> <li>Yet to be determined whether amalgamated councils are rationalising prices.</li> <li>There has been some progress in this area. For example, on 1 January 2008, the Queensland Plumbing and Wastewater Code made it mandatory to install sub-meters in all new multi-unit developments and some non-residential premises.</li> </ul> |

<sup>20</sup> Councils with less than 4,000 connected properties are required to recover at least 50 per cent of residential revenue from water usage charges.

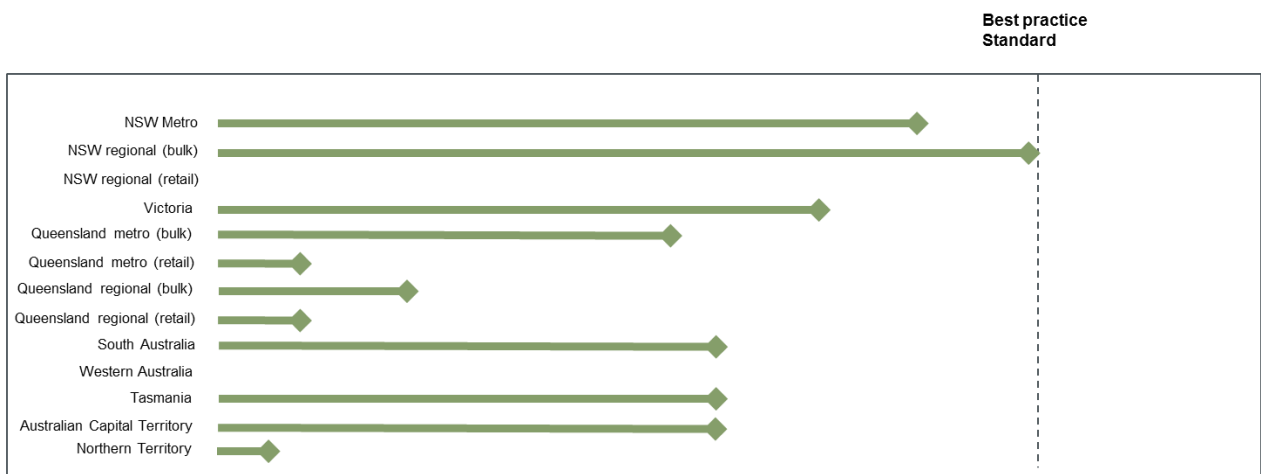
**Table 5** State-by-state performance against the best practice pricing standard

| Jurisdiction/sub-sector      | Independent economic regulation | Cost transparency | Transparent cost sharing between users and government | Full cost recovery       | Approaches to recovering capital expenditure | Treatment of contributed assets | Tariffs | Metering |
|------------------------------|---------------------------------|-------------------|-------------------------------------------------------|--------------------------|----------------------------------------------|---------------------------------|---------|----------|
| NSW metro                    | ✓<br>✓                          | ✓<br>✓            |                                                       | ✓<br>✓                   | ✓<br>✓                                       | ✓<br>✓                          | ✓<br>✓  | ✓<br>✓   |
| NSW regional (bulk)          | ✓<br>✓                          | ✓<br>✓            | ✓<br>✓                                                | ✓<br>✓                   | ✓<br>✓                                       | ✓<br>✓                          | ✓<br>✓  | N/A      |
| NSW regional (retail)        |                                 |                   |                                                       |                          |                                              | Insufficient information        |         |          |
| Victoria                     | ✓<br>✓                          | ✓<br>✓            |                                                       | ✓<br>✓                   | ✓<br>✓                                       | ✓<br>✓                          |         | ✓<br>✓   |
| Queensland metro (bulk)      |                                 | ✓<br>✓            |                                                       | ✓                        | ✓<br>✓                                       | ✓<br>✓                          | ✓<br>✓  | N/A      |
| Queensland metro (retail)    |                                 |                   |                                                       | Insufficient information | Insufficient information                     | Insufficient information        |         | ✓<br>✓   |
| Queensland regional (bulk)   |                                 |                   |                                                       |                          | Insufficient information                     | Insufficient information        | ✓<br>✓  | N/A      |
| Queensland regional (retail) |                                 |                   |                                                       | Insufficient information |                                              | Insufficient information        |         | ✓<br>✓   |
| South Australia              | ✓<br>✓                          | ✓<br>✓            |                                                       | ✓<br>✓                   | ✓<br>✓                                       | ✓<br>✓                          |         |          |
| Western Australia            |                                 |                   |                                                       | Insufficient information | Insufficient information                     | Insufficient information        |         |          |

| Jurisdiction/sub-sector | Independent economic regulation | Cost transparency | Transparent cost sharing between users and government | Full cost recovery       | Approaches to recovering capital expenditure | Treatment of contributed assets | Tariffs | Metering |
|-------------------------|---------------------------------|-------------------|-------------------------------------------------------|--------------------------|----------------------------------------------|---------------------------------|---------|----------|
| Tasmania                | ✓<br>✓                          | ✓<br>✓            |                                                       | ✓                        | ✓<br>✓                                       | ✓<br>✓                          | ✓       |          |
| ACT                     | ✓<br>✓                          | ✓<br>✓            |                                                       | ✓<br>✓                   | ✓<br>✓                                       | ✓<br>✓                          |         |          |
| Northern Territory      |                                 |                   |                                                       | Insufficient information | Insufficient information                     | Insufficient information        | ✓       |          |

Notes: Double ticks indicate that the standard is being fully met. A single tick indicates the standard is being partially met. No ticks indicate the standard is not being met. A lack of transparency in some jurisdictions means it is difficult to determine performance against the base standard through a desktop approach. Where this is the case, “insufficient information” is noted. Further details to support the findings are provided in Appendix C.

A state-by-state summary of performance against the best practice standard is presented in Figure 7.



Notes: For the purpose of the diagram, the best practice standard comprises eight key elements, each of which has been assigned an equal weighting. A lack of transparency in some jurisdictions means it is difficult to determine performance against the best practice standard through a desktop approach. Where there is insufficient information (refer to Table 5), it has been assumed the standard is not being met. Where an element is not applicable, it has been assumed the standard is being met. Further details are provided in Appendix C.

Figure 7 Summary of state-by-state performance against the best practice pricing standard

### 4.3. Mapping the best practice standard against NWI objectives and outcomes

NWI objectives, actions and desired outcomes for water pricing still remain appropriate. However, as outlined in section 2.2, departure away from NWI objectives and actions for pricing, particularly during the millennium drought undermined the capacity for water pricing to encourage economically efficient water use and service provision. For example, policy interventions to exclude some investment from the purview of economic regulators and decisions to use water pricing to achieve political outcomes mean that prices are trying to achieve too many objectives at once. Sometimes these objectives compete with one another resulting in none of the objectives being achieved as specified and agreed under the NWI. Figure 8 presents an overview of how NWI pricing objectives map to elements in the best practice standard and the outcomes that can be achieved by implementing the best practice standard.

|   | NWI objectives                                                                                                                                                              | Best practice element                                | Outcomes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | <ul style="list-style-type: none"> <li>• Clear separation of regulatory and policy roles for government</li> <li>• Customer protection against monopoly charging</li> </ul> | Genuinely independent economic regulation            | <ul style="list-style-type: none"> <li>• All expenditure gets tested for prudence and efficiency by an independent economic regulator (even during drought)</li> <li>• Bill increases are minimised to cover prudent and efficient service delivery</li> </ul>                                                                                                                                                                                                                                                      |
| 2 | <ul style="list-style-type: none"> <li>• Give effect to the principle of transparency</li> </ul>                                                                            | Cost transparency                                    | <ul style="list-style-type: none"> <li>• Customers have increased confidence that the costs they are being charged are reasonable</li> <li>• Customers can influence service standards</li> <li>• Water service providers are able to align planned expenditure with agreed service standards (thereby improving service delivery)</li> </ul>                                                                                                                                                                       |
| 3 | <ul style="list-style-type: none"> <li>• Give effect to the principle of user-pays</li> </ul>                                                                               | Transparent cost sharing frameworks in place         | <ul style="list-style-type: none"> <li>• Customers have increased confidence that the costs they are being charged are reasonable and reflect costs they either cause to be incurred and/or derive a direct benefit from</li> </ul>                                                                                                                                                                                                                                                                                 |
| 4 | <ul style="list-style-type: none"> <li>• Full cost recovery to promote financial viability and maintain service standards.</li> </ul>                                       | Full cost recovery                                   | <ul style="list-style-type: none"> <li>• Water service providers are financially viable and able to access debt and equity to undertake new investment</li> <li>• Adequate infrastructure maintenance to prolong infrastructure life can occur</li> <li>• Incentives for private sector involvement in asset ownership</li> </ul>                                                                                                                                                                                   |
| 5 | <ul style="list-style-type: none"> <li>• Consistent approaches to recovering capital expenditure (including contributed assets)</li> </ul>                                  | Consistent application of building blocks approaches | <ul style="list-style-type: none"> <li>• By moving away from renewals annuities, water service providers do not have to forecast future capital expenditure for the purposes of price setting</li> <li>• Intergenerational equity issues associated with recovering future capital expenditure costs from current customer's are obviated</li> <li>• Less incentive to spend funds in a sinking fund unnecessarily</li> <li>• Customers don't pay for contributed assets that have already been paid for</li> </ul> |
| 6 | <ul style="list-style-type: none"> <li>• Consumption based pricing to send a signal to customers as to the cost of service delivery</li> </ul>                              | Two part tariffs and metering                        | <ul style="list-style-type: none"> <li>• Improve efficiency and equity by moving away from IBT's towards two-part tariffs with a single variable charge</li> <li>• Individual metering for new residences to ensure more customers have the flexibility to reduce their bill by adjusting use</li> <li>• More efficient water use prolongs investment in the next infrastructure augmentation which, once approved, pushes up prices</li> </ul>                                                                     |

Source: Aither, 2017

**Figure 8 Mapping water pricing objectives to actions and desired outcomes**

## 5. Urban water pricing reform pathway

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### 5.1. Reform pathway overview

This section outlines a proposed pathway to implement the urban water pricing standards. Given that the base standard is defined as pricing commitments already agreed under the NWI, the pathway to implement the base standard is straightforward and involves jurisdictions implementing these commitments. However, given that the best practice standard is desirable, it is recommended that the best practice standard becomes the reform target. The reform pathway comprises three phases which are discussed below.

#### 5.1.1. Phase 1: Agree on a best practice pricing standard

Water pricing is the responsibility of states and territories and local governments and the first step is to agree to the best practice pricing standard in consultation with governments. As part of this process, decisions will need to be made on:

- arrangements to improve pricing for regional urban water providers in New South Wales and Queensland. In principle, there are benefits to regulating water (and wastewater) prices for these utilities including improved transparency, ensuring cost recovery without exceeding cost recovery thresholds and moving these providers to a RAB approach to recovering capital expenditure. However, there also costs associated with regulating these utilities, many of which service only a small number of customers<sup>21</sup>. As an initial step, an approach whereby service providers with over 20,000 connections are regulated could be appropriate. This would apply to 10 regional councils in New South Wales and 8 in Queensland<sup>22</sup> (Bureau of Meteorology, 2017). If some council's in regional Queensland and New South Wales continue to set their own prices, an updated set of guidelines should be developed to align price setting arrangements to the best practice standard.
- an appropriate cost sharing framework that can be applied consistently across jurisdictions<sup>23</sup>.
- arrangements to transition away from postage stamp pricing including the extent to which developer charges and costs to augment trunk distribution infrastructure can play a role in differentiating prices for new development areas.
- appropriate implementation timeframes.

#### 5.1.2. Phase 2: Incorporate the standard into a national agreement with incentives for implementation

Once developed, the national best practice standard for urban water pricing should be agreed by all levels of government. An arrangement where COAG agrees to a broader urban water reform framework which incorporates the best practice pricing standard would be appropriate. The broader urban water reform agreement and the best practice pricing standard could be developed in the context of a new competition principles and reform agreement. Irrespective of the delivery vehicle, experience with mixed and inconsistent implementation of pricing under inter-jurisdictional

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<sup>21</sup> For example, the Queensland Water Directorate (2015) notes that in Queensland, “two thirds of potable schemes service towns with fewer than 1,000 residents and 50 per cent service fewer than 500 people”.

<sup>22</sup> Excluding local councils in South East Queensland.

<sup>23</sup> NWI Principles for recovering water planning and management can provide useful guidance as a starting point.

agreements, means it will be critical that the pricing standard is binding. Infrastructure Reform Incentives (see 5.2) can play a role here.

### **5.1.3. Phase 3: Agree on arrangements to assess and report on progress and to refine the best practice standard**

The final component of the reform pathway is to assess implementation of the best practice pricing standard and monitor whether outcomes are being achieved in order to refine the pricing standard under an adaptive management approach.

Arguably, there is also a role for the Commonwealth in monitoring implementation progress and reporting on outcomes. The case for Commonwealth involvement in assessing implementation and reporting on outcomes is strengthened given that the Commonwealth does not have a direct role in service provision in the urban water sector. The PC's (2005) review of NCP found that independent monitoring of implementation was critical to the success of NCP.

Including provision for future review and refinement of the best practice standard means that implementation can commence on a no regrets basis with scope for continued improvement, including as new challenges emerge and as alternative approaches to pricing (see below) develop.

#### ***Alternative approaches to urban water pricing***

Both the PC and the NWC have in the past, advocated for further consideration of flexible (scarcity) pricing in the urban water sector<sup>24</sup>. In summary, the premise of flexible (scarcity) pricing is that setting the variable component of a two-part tariff at long run marginal cost is a static concept that fails to signal the dynamic nature of the opportunity cost of water under varying levels of supply relative to demand. The result is that during periods of low water availability, tariffs set at long run marginal cost fail to signal an increasing opportunity cost of water use, resulting in the need for water restrictions and/or supply augmentation to be brought forward to balance supply and demand.

The alternative approach; flexible (scarcity) pricing, would see the variable component of the two-part tariff set to reflect the marginal opportunity cost of water. In practice, the variable tariff would be set to reflect:

- The short run marginal cost of supply (i.e. direct variable costs to supply water),
- The opportunity cost of supply, and
- Net externalities attributable to supply.

Moving to this type of arrangement constitutes a significant shift in the way urban water prices are set and there are a range of practical issues that require further investigation to test the appropriateness of this type of arrangement. For example, further investigation of whether scarcity pricing could or should be applied at the retail and/or wholesale level, taking into account factors such as whether market (entitlement) prices at the wholesale level are an adequate substitute is an area that warrants further consideration. Other practicalities such as how scarcity prices are calculated and how a flexible approach to pricing can be integrated within current economic regulatory arrangements which rely on fixed price periods also require further testing. A future review of the best practice standard could consider these issues further.

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<sup>24</sup> See for example, PC (2011), Inquiry into Australia's Urban Water Sector and NWC and Frontier Economics (2008), Approaches to urban water pricing for further details.

## 5.2. Implementation strategy

In principle, there is a strong case for the Australian Government to assume a leadership and coordination role to develop and oversee further reform in the urban water sector. However, it is acknowledged that resources or priorities may mean that this is not practical and although desirable, it is not essential that the Australian Government assumes such a role. Other models, including one where IA takes a leadership role or where the states and territories work together are also feasible. Irrespective of which organisation leads, the states and territories and local government in New South Wales and Queensland will need to be involved and need to be convinced that reform is worth pursuing.

While progress has been made through inter-jurisdictional agreements such as the NWI, the success of National Competition Policy (NCP) incentive payments in driving micro-economic reform in the past provides a model implementation strategy that should be considered to drive implementation. While it is acknowledged that the Australian Government is in a budget repair phase, there is a compelling case for incentive payments to form part of the implementation strategy. For example, the PC's (2005) review of NCP noted that:

*The provision of financial incentives to the States and Territories, allowing them to share directly in the fiscal dividend from meeting their agreed reform commitments, played a critical role in keeping the reform process on track.*

The Australian Government's 2015 review of competition policy also expressed strong stakeholder support for incentive payments. Importantly for the urban water sector, where there may not be an appetite for further reform, the review found that:

*A common theme in the Panel's meetings with representatives of the States and Territories was that competition payments contributed positively to their ability to implement reform. Although the quantum of the payments was not large compared to total state and territory revenues, representatives consistently argued that the payments provided an additional argument that could be used to support reform. In particular, it was put to the Panel that the possibility of payments being withheld was important to maintain support in the face of opposition to reform (Australian Government, 2015).*

These findings are consistent with IA's position as articulated in the AIP (2016) which stated that:

*The Australian Government can and should use its funding position to drive the implementation of wider reforms not specifically related to a project. Through Infrastructure Reform Incentives, the Australian Government would incentivise reforms by providing additional infrastructure investment – above existing projected allocations – in return for delivery of agreed reforms, as outlined in the AIP.*

If Reform Incentive Payments are utilised, the best practice standard can be used to shape the terms for Reform Incentive Payments. A model whereby payments are provided for new reforms only after demonstrating full implementation of previously agreed reforms may be appropriate. However, the Australian Government funding urban water infrastructure is not desirable in the context of NWI objectives for water pricing. An arrangement whereby progress in implementation of the best practice standard unlocks funding for infrastructure in other sectors is worthy of consideration.

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# Appendix A – NWI Pricing Principles

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## 5.3. National Water Initiative Pricing Principles

In 2010, the NWI Pricing Principles were endorsed to by the Natural Resource Management Ministerial Council. The pricing principles provide further guidance for water pricing, beyond that which is specified in the NWI, and are relevant for framing the minimum national urban water pricing standard as they reflect pricing approaches already agreed by states and territories. Of most relevance for this report are the principles for:

- Recovering capital expenditure
- Urban water tariffs.

A transcript of the most relevant principles is outlined below.

### *NWI Principles for recovering capital expenditure*

The NWI principles for recovering capital expenditure through water charges using a renewals annuity or building blocks/Regulatory Asset Base (RAB) approach.

Specifically, these principles state that:

- For new or replacement assets, charges will be set to achieve full cost recovery of capital expenditures<sup>25</sup> (net of transparent deductions/offsets for contributed assets and developer charges and transparent community service obligations) through either:
  - a return of capital (depreciation of the RAB) and return on capital (generally calculated as rate of return on the depreciated RAB); or
  - a renewals annuity and a return on capital (calculated as a rate of return on an undepreciated asset base (ORC)).
- The rate of return should be consistent with the Weighted Average Cost of Capital (WACC).
- New and replacement assets should be initially valued at efficient actual cost.
- Legacy assets<sup>26</sup> that are to be retained should be valued at Depreciated Replacement Cost (DRC); Depreciated Optimised Replacement Cost (DORC); Optimised Replacement Cost (ORC), indexed actual cost, Optimised Deprival Value (ODV)<sup>27</sup> or using another recognised valuation method.
- In respect of legacy investment decisions, and on the assumption that assets are to be retained, charges will achieve cost recovery by way of a depreciation charge or annuity charge and a positive return on an asset value used for price setting purposes as at the legacy date.

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<sup>25</sup> Charges may be set to achieve up to full cost recovery of capital expenditures in the rural and regional sector where it is demonstrated that it is not practicable to move towards upper bound pricing as per the terms identified in clause 66 (v) of the NWI.

<sup>26</sup> The legacy date will be no later than 1 January 2007 and may be in accordance with earlier dates determined by governments or economic regulators (e.g. where a line in the sand has been drawn). Once set, the legacy date should not change. Costs funded by governments after the legacy date should be reported through a transparent subsidy.

<sup>27</sup> This is consistent with the findings of the expert group on asset valuation methods which stated that the deprival value approach to asset valuation should be adopted. The optimised deprival value is the lesser of the DORC and the economic value of the asset.

- New contributed assets (i.e. grants/gifts from governments and contributions from customers (e.g. developer charges)) should be excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers. If a renewals annuity is used, it should include provision for replacement of contributed assets.

### *NWI Principles for setting urban water tariffs*

The NWI principles for urban water tariffs were designed for a scenario where large monopoly water providers operate without the competitive pressures of contestability and water trading. In this scenario, which is still the dominant scenario for the urban water sector, administratively set tariffs are the means by which cost recovery is achieved.

Specifically, and noting these principles apply only to charges levied to provide water services to urban users (i.e. exclude wastewater, recycled water and stormwater), the principles state that:

- Two-part tariffs, comprising a service availability (or fixed) charge and a water usage charge should be used to recover the revenue requirement.
- The water usage charge should have regard to the long run marginal cost of the supply of additional water.
- On economic efficiency grounds the water usage charge should comprise only a single usage charge. However, governments may decide on more than one tier for the water usage charge for policy reasons (e.g. sending a strong pricing signal to encourage efficient water use; and having regard to equity objectives).
- The revenue recovered through the service availability charge should be calculated as the difference between the total revenue requirement and revenue recovered through water usage charges and developer charges.
- Urban water tariffs should be set using a transparent methodology, through a process which seeks and takes into account public comment, or which is subject to public scrutiny.
- Water charges should be differentiated by the cost of servicing different customers (for example, on the basis of location and service standards) where there are benefits in doing so and where it can be shown that these benefits outweigh the costs of identifying differences and the equity advantages of alternatives<sup>28</sup>.

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<sup>28</sup> This is relevant in the context of nodal versus postage stamp pricing.

## Appendix B – State-by-state summary of progress against the base pricing standard

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**Table 6** Current performance against the base pricing standard: New South Wales

| Pricing element                                 | Base standard                                                                                                                                                                                                                                                                                                                          | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Independent economic regulation              | Use independent bodies to set or review prices, or price setting processes (on a case by case basis)                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>New South Wales is meeting the base standard: <ul style="list-style-type: none"> <li>In metropolitan areas and for bulk water supplied to regional areas in New South Wales.</li> <li>There is no independent pricing oversight of prices for urban customers in regional areas however the base standard (NWI) provides flexibility for these arrangements to apply on a case by case basis.</li> </ul> </li> </ul> |
| 2. Full cost recovery                           | <ul style="list-style-type: none"> <li>Charges are set to achieve full cost recovery, including a return on capital for all new expenditure</li> <li>If a CSO is required (e.g. in smaller, regional schemes), it is reported publically and removed over time (where practical)</li> </ul>                                            | <ul style="list-style-type: none"> <li>Full cost recovery is being achieved in metropolitan areas in New South Wales.</li> <li>Full cost recovery is not being met consistently and universally across regional areas in New South Wales (refer to Table 14 for further details)</li> </ul>                                                                                                                                                                 |
| 3. Approaches to recovering capital expenditure | <ul style="list-style-type: none"> <li>Renewals annuity or RAB (building blocks) as per NWI Pricing Principles</li> </ul>                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>New South Wales is meeting the base standard which provides flexibility for either a RAB or renewals approach to be used.</li> </ul>                                                                                                                                                                                                                                                                                 |
| 4. Treatment of contributed assets              | <ul style="list-style-type: none"> <li>Developer charges and government contributions are excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers (NWI Pricing Principles provide further details)</li> </ul>                            | <ul style="list-style-type: none"> <li>In metropolitan areas, contributed assets are deducted from the RAB.</li> <li>In regional New South Wales, it is unclear how contributed assets are treated, noting that NWI Principles require a return of capital (depreciation) to be recovered for contributed assets where a renewals annuity is used (SGWC, 2010).</li> </ul>                                                                                  |
| 5. Tariffs and metering                         | <ul style="list-style-type: none"> <li>On economic efficiency grounds, the water usage charge should comprise only a single usage charge. However, governments may decide on more than one tier for the water usage charge for policy reasons</li> <li>Costs disaggregated on the basis of location to the extent practical</li> </ul> | <ul style="list-style-type: none"> <li>New South Wales is meeting the base standard for tariffs which provides flexibility for a range of tariff structures and for postage stamp pricing.</li> </ul>                                                                                                                                                                                                                                                       |

**Table 7** Current performance against the base pricing standard: Victoria

| Pricing element                                 | Base standard                                                                                                                                                                                                                                                                                                                          | Current performance                                                                                                                                                                                                                                                               |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Independent economic regulation              | Use independent bodies to set or review prices, or price setting processes (on a case by case basis)                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>Victoria is meeting the base practice standard for economic regulation: <ul style="list-style-type: none"> <li>The Essential Services Commission (ESC) sets or approves prices for urban water throughout Victoria.</li> </ul> </li> </ul> |
| 2. Full cost recovery                           | <ul style="list-style-type: none"> <li>Charges are set to achieve full cost recovery, including a return on capital for all new expenditure</li> <li>If a CSO is required (e.g. in smaller, regional schemes), it is reported publically and removed over time (where practical)</li> </ul>                                            | <ul style="list-style-type: none"> <li>Victoria is meeting the base standard for full cost recovery (Table 15 provides more detail)</li> </ul>                                                                                                                                    |
| 3. Approaches to recovering capital expenditure | <ul style="list-style-type: none"> <li>Renewals annuity or RAB (building blocks) as per NWI Pricing Principles</li> </ul>                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>Victoria is meeting the base standard: <ul style="list-style-type: none"> <li>A RAB approach is used throughout Victoria.</li> </ul> </li> </ul>                                                                                           |
| 4. Treatment of contributed assets              | <ul style="list-style-type: none"> <li>Developer charges and government contributions are excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers (NWI Pricing Principles provide further details)</li> </ul>                            | <ul style="list-style-type: none"> <li>Victoria is meeting the best practice standard for contributed assets: <ul style="list-style-type: none"> <li>Contributed assets are excluded from the RAB for pricing purposes.</li> </ul> </li> </ul>                                    |
| 5. Tariffs and metering                         | <ul style="list-style-type: none"> <li>On economic efficiency grounds, the water usage charge should comprise only a single usage charge. However, governments may decide on more than one tier for the water usage charge for policy reasons</li> <li>Costs disaggregated on the basis of location to the extent practical</li> </ul> | <ul style="list-style-type: none"> <li>Victoria is meeting the base standard for tariffs which provides flexibility for a range of tariff structures and for postage stamp pricing.</li> </ul>                                                                                    |

**Table 8** Current performance against the base pricing standard: Queensland

| Pricing element                    | Base standard                                                                                                                                                                                                                                                                               | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Independent economic regulation | Use independent bodies to set or review prices, or price setting processes (on a case by case basis)                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>Queensland is partially meeting the economic regulation base standard for bulk water in south east Queensland: <ul style="list-style-type: none"> <li>The QCA has been tasked with recommending bulk water prices for south east Queensland's bulk water service provider (Seqwater) for the period 1 July 2018 to 30 June 2021. However, the QCAs remit is subject to a range of government mandated conditions which compromises independence.</li> </ul> </li> <li>Queensland is not meeting the economic regulation base standard for retail water in south east Queensland <ul style="list-style-type: none"> <li>In the recent past, the QCA had a price monitoring role for the distributor-retailers. The QCA no longer has a role in retail urban water. The QCAs last price monitoring review covered the period 2013-2015 Distributor-retailers (of which there are five) now set their own prices.</li> </ul> </li> <li>There is no independent oversight of prices for urban customers in regional Queensland where local councils set their own prices. However the base standard (NWI) provides flexibility for these arrangements to apply on a case by case basis. Given the costs of regulating 71 local councils, Queensland is meeting the base standard.</li> </ul> |
| 2. Full cost recovery              | <ul style="list-style-type: none"> <li>Charges are set to achieve full cost recovery, including a return on capital for all new expenditure</li> <li>If a CSO is required (e.g. in smaller, regional schemes), it is reported publically and removed over time (where practical)</li> </ul> | <ul style="list-style-type: none"> <li>Performance against the base standard in Queensland varies: <ul style="list-style-type: none"> <li>Prices for bulk water in south east Queensland are transitioning to full cost recovery in accordance with the government's specified price path (to 2027-2028).</li> <li>The QCAs price monitoring role has been wound back which means there is insufficient evidence to determine whether distributor-retailers are achieving or exceeding full cost recovery.</li> <li>Full cost recovery for bulk water supplied to regional councils is subject to a CPI price cap increase and full cost recovery is not being achieved.</li> <li>Full cost recovery for retail water in regional areas is mixed across local council areas however there is insufficient information to assess</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

| Pricing element                                 | Base standard                                                                                                                                                                                                                                                                                                                          | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                 |                                                                                                                                                                                                                                                                                                                                        | whether full cost recovery is being achieved or exceeded. However, in 2011, the PC noted that the Local Government Association of Queensland has indicated that “water businesses have been generating revenue that has been transferred to other aspects of council business; effectively creating cross-subsidies (PC, 2011).                                                                                                                         |
| 3. Approaches to recovering capital expenditure | <ul style="list-style-type: none"> <li>Renewals annuity or RAB (building blocks) as per NWI Pricing Principles</li> </ul>                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>Queensland is meeting the base standard which provides flexibility for either a RAB or renewals approach to be used.</li> </ul>                                                                                                                                                                                                                                                                                  |
| 4. Treatment of contributed assets              | <ul style="list-style-type: none"> <li>Developer charges and government contributions are excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers (NWI Pricing Principles provide further details)</li> </ul>                            | <ul style="list-style-type: none"> <li>Queensland is meeting the base standard in metropolitan areas: <ul style="list-style-type: none"> <li>In metropolitan areas, contributed assets are (or have in the past in the case of distributor-retailers where price monitoring was in place previously) deducted from the RAB.</li> </ul> </li> <li>There is insufficient information for how contributed assets are treated by local councils.</li> </ul> |
| 5. Tariffs and metering                         | <ul style="list-style-type: none"> <li>On economic efficiency grounds, the water usage charge should comprise only a single usage charge. However, governments may decide on more than one tier for the water usage charge for policy reasons</li> <li>Costs disaggregated on the basis of location to the extent practical</li> </ul> | <ul style="list-style-type: none"> <li>Queensland is meeting the base standard for tariffs which provides flexibility for a range of tariff structures and for postage stamp pricing.</li> </ul>                                                                                                                                                                                                                                                        |

**Table 9** Current performance against the base pricing standard: South Australia

| Pricing element                                 | Base standard                                                                                                                                                                                                                                                                                                                          | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Independent economic regulation              | Use independent bodies to set or review prices, or price setting processes (on a case by case basis)                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>South Australia is meeting the base standard for independent economic regulation: <ul style="list-style-type: none"> <li>ESCOSA sets SA Water's maximum allowable revenue. The South Australian Government determines prices in accordance with the maximum allowable revenue.</li> </ul> </li> </ul>                                                                                                                                                                                                          |
| 2. Full cost recovery                           | <ul style="list-style-type: none"> <li>Charges are set to achieve full cost recovery, including a return on capital for all new expenditure</li> <li>If a CSO is required (e.g. in smaller, regional schemes), it is reported publically and removed over time (where practical)</li> </ul>                                            | <ul style="list-style-type: none"> <li>South Australia is meeting the best practice standard for full cost recovery: <ul style="list-style-type: none"> <li>SA Water's revenue cap as determined by ESCOSA is consistent with achieving full cost recovery. Assuming that prices, which are set by SA Water and government are capable of achieving this revenue then South Australia is achieving full cost recovery.</li> <li>CSOs paid to SA Water are published in the South Australian Government Gazette (ESCOSA, 2016).</li> </ul> </li> </ul> |
| 3. Approaches to recovering capital expenditure | <ul style="list-style-type: none"> <li>Renewals annuity or RAB (building blocks) as per NWI Pricing Principles</li> </ul>                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>South Australia is meeting the base standard: <ul style="list-style-type: none"> <li>A RAB approach is used throughout South Australia.</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                 |
| 4. Treatment of contributed assets              | <ul style="list-style-type: none"> <li>Developer charges and government contributions are excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers (NWI Pricing Principles provide further details)</li> </ul>                            | <ul style="list-style-type: none"> <li>South Australia is meeting the best practice standard for contributed assets: <ul style="list-style-type: none"> <li>Contributed assets are excluded from the RAB for pricing purposes.</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                 |
| 5. Tariffs and metering                         | <ul style="list-style-type: none"> <li>On economic efficiency grounds, the water usage charge should comprise only a single usage charge. However, governments may decide on more than one tier for the water usage charge for policy reasons</li> <li>Costs disaggregated on the basis of location to the extent practical</li> </ul> | <ul style="list-style-type: none"> <li>South Australia is meeting the base standard for tariffs which provides flexibility for a range of tariff structures and for postage stamp pricing.</li> </ul>                                                                                                                                                                                                                                                                                                                                                 |

**Table 10 Current performance against the base pricing standard: Western Australia**

| Pricing element                                 | Base standard                                                                                                                                                                                                                                                                               | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Independent economic regulation              | Use independent bodies to set or review prices, or price setting processes (on a case by case basis)                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>Western Australia is meeting the base standard for independent economic regulation: <ul style="list-style-type: none"> <li>The ERA reviews prices and makes recommendations to government.</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 2. Full cost recovery                           | <ul style="list-style-type: none"> <li>Charges are set to achieve full cost recovery, including a return on capital for all new expenditure</li> <li>If a CSO is required (e.g. in smaller, regional schemes), it is reported publically and removed over time (where practical)</li> </ul> | <ul style="list-style-type: none"> <li>It is unclear whether Western Australia is meeting the standard for full cost recovery: <ul style="list-style-type: none"> <li>Prices are set by government and there is insufficient evidence to determine whether prices are set to meet full cost recovery. However, the ERA (2013) noted that in their 2007 inquiry, “charges in place at the time were significantly below cost-reflective charges. To avoid a rapid increase in charges, the ERA recommended that charges be transitioned to cost-reflective levels over a ten-year period (2007/08 to 2016/17). These recommendations were implemented following the release of the 2007 inquiry. As part of [the 2013] inquiry, the ERA...continued with the same phase in approach such that recommended charges will continue to gradually increase until 2016/17, at which time they will be cost-reflective”.</li> <li>Government provides an operating subsidy (CSO) to Water Corporation to account for revenue shortfall attributable to the provision services to regional and remote area services, and concessions to customers. These subsidies are publically reported in Water Corporation’s Annual Report.</li> </ul> </li> </ul> |
| 3. Approaches to recovering capital expenditure | <ul style="list-style-type: none"> <li>Renewals annuity or RAB (building blocks) as per NWI Pricing Principles</li> </ul>                                                                                                                                                                   | <ul style="list-style-type: none"> <li>It is unclear whether Western Australia is meeting this standard: <ul style="list-style-type: none"> <li>The ERA uses a building block approach to calculate an efficient level of costs in its recommendations to government however it is unclear whether this approach is used by government to set prices.</li> <li>In 2007, the SGWC stated that a building blocks approach was used in Western Australia.</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 4. Treatment of contributed assets              | <ul style="list-style-type: none"> <li>Developer charges and government contributions are excluded or deducted from the RAB or offset using</li> </ul>                                                                                                                                      | <ul style="list-style-type: none"> <li>It is unclear whether Western Australia is meeting this standard: <ul style="list-style-type: none"> <li>In 2013, the ERA stated that “The existing initial regulatory asset value of</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

| Pricing element         | Base standard                                                                                                                                                                                                                                                                                                                              | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                         | other mechanisms so that a return on and of the contributed capital is not recovered from customers (NWI Pricing Principles provide further details)                                                                                                                                                                                       | <p>the Water Corporation is incorrect because it includes a value for assets that have been gifted to the Water Corporation by developers (developer contributions)” (ERA, 2013).</p> <ul style="list-style-type: none"> <li>– In response to this finding, the Water Corporation stated that it “supports a pricing model where developer contributions are excluded” (ERA, 2013).</li> <li>– The ERA recommended developer charges be excluded from the RAB however it is not known whether this recommendation was implemented.</li> </ul> |
| 5. Tariffs and metering | <ul style="list-style-type: none"> <li>• On economic efficiency grounds, the water usage charge should comprise only a single usage charge. However, governments may decide on more than one tier for the water usage charge for policy reasons</li> <li>• Costs disaggregated on the basis of location to the extent practical</li> </ul> | <ul style="list-style-type: none"> <li>• Western Australia is meeting the base standard for tariffs which provides flexibility for a range of tariff structures and for postage stamp pricing.</li> </ul>                                                                                                                                                                                                                                                                                                                                     |

**Table 11 Current performance against the base pricing standard: Tasmania**

| Pricing element                                 | Base standard                                                                                                                                                                                                                                                                                                                          | Current performance                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Independent economic regulation              | Use independent bodies to set or review prices, or price setting processes (on a case by case basis)                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>Tasmania is meeting the best practice standard for independent economic regulation: <ul style="list-style-type: none"> <li>OTTER sets water prices.</li> </ul> </li> </ul>                                                                                                                                   |
| 2. Full cost recovery                           | <ul style="list-style-type: none"> <li>Charges are set to achieve full cost recovery, including a return on capital for all new expenditure</li> <li>If a CSO is required (e.g. in smaller, regional schemes), it is reported publically and removed over time (where practical)</li> </ul>                                            | <ul style="list-style-type: none"> <li>Tasmania is partially meeting the standard for full cost recovery: <ul style="list-style-type: none"> <li>Tasmania is currently transitioning to full cost recovery in accordance with the legislative requirement for prices to reflect full costs by 2020.</li> </ul> </li> </ul>                          |
| 3. Approaches to recovering capital expenditure | <ul style="list-style-type: none"> <li>Renewals annuity or RAB (building blocks) as per NWI Pricing Principles</li> </ul>                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>Tasmania is meeting the best practice standard for recovering capital expenditure: <ul style="list-style-type: none"> <li>The OTTER requires a building block approach to be used.</li> </ul> </li> </ul>                                                                                                    |
| 4. Treatment of contributed assets              | <ul style="list-style-type: none"> <li>Developer charges and government contributions are excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers (NWI Pricing Principles provide further details)</li> </ul>                            | <ul style="list-style-type: none"> <li>Tasmania is meeting the best practice standard for contributed assets: <ul style="list-style-type: none"> <li>Regulated entities are not permitted to earn a rate of return on and of contributed assets.</li> <li>TasWater removes contributed assets from the RAB (TasWater, 2017).</li> </ul> </li> </ul> |
| 5. Tariffs and metering                         | <ul style="list-style-type: none"> <li>On economic efficiency grounds, the water usage charge should comprise only a single usage charge. However, governments may decide on more than one tier for the water usage charge for policy reasons</li> <li>Costs disaggregated on the basis of location to the extent practical</li> </ul> | <ul style="list-style-type: none"> <li>Tasmania is meeting the base standard for tariffs which provides flexibility for a range of tariff structures and for postage stamp pricing.</li> </ul>                                                                                                                                                      |

**Table 12 Current performance against the base pricing standard: Australian Capital Territory**

| Pricing element                                 | Base standard                                                                                                                                                                                                                                                                                                                          | Current performance                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Independent economic regulation              | Use independent bodies to set or review prices, or price setting processes (on a case by case basis)                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>The Australian Capital Territory is meeting the base practice standard for independent economic regulation: <ul style="list-style-type: none"> <li>The Independent Competition and Regulatory Commission (ICRC) sets water prices.</li> </ul> </li> </ul>                                                                          |
| 2. Full cost recovery                           | <ul style="list-style-type: none"> <li>Charges are set to achieve full cost recovery, including a return on capital for all new expenditure</li> <li>If a CSO is required (e.g. in smaller, regional schemes), it is reported publically and removed over time (where practical)</li> </ul>                                            | <ul style="list-style-type: none"> <li>The Australian Capital Territory is meeting the base standard for full cost recovery: <ul style="list-style-type: none"> <li>Full cost recovery is being achieved in the Australian Capital Territory.</li> <li>Icon Water receives a small CSO which is reported publically in Icon Water's Annual Report.</li> </ul> </li> </ul> |
| 3. Approaches to recovering capital expenditure | <ul style="list-style-type: none"> <li>Renewals annuity or RAB (building blocks) as per NWI Pricing Principles</li> </ul>                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>The Australian Capital Territory is meeting the base standard for recovering capital expenditure: <ul style="list-style-type: none"> <li>Prices are set using a building blocks approach.</li> </ul> </li> </ul>                                                                                                                   |
| 4. Treatment of contributed assets              | <ul style="list-style-type: none"> <li>Developer charges and government contributions are excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers (NWI Pricing Principles provide further details)</li> </ul>                            | <ul style="list-style-type: none"> <li>The Australian Capital Territory is meeting the base standard for contributed assets.</li> </ul>                                                                                                                                                                                                                                   |
| 5. Tariffs and metering                         | <ul style="list-style-type: none"> <li>On economic efficiency grounds, the water usage charge should comprise only a single usage charge. However, governments may decide on more than one tier for the water usage charge for policy reasons</li> <li>Costs disaggregated on the basis of location to the extent practical</li> </ul> | <ul style="list-style-type: none"> <li>The Australian Capital Territory is meeting the base standard for tariffs which provides flexibility for a range of tariff structures and for postage stamp pricing.</li> </ul>                                                                                                                                                    |

**Table 13 Current performance against the base pricing standard: Northern Territory**

| Pricing element                                 | Base standard                                                                                                                                                                                                                                                                                               | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Independent economic regulation              | Use independent bodies to set or review prices, or price setting processes (on a case by case basis)                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>The Northern Territory is not meeting the base standard for independent economic regulation: <ul style="list-style-type: none"> <li>The independent economic regulator (Utilities Commission) does not have a role in setting urban water prices. Rather, water charges are regulated by the Territory Government via a Water and Sewerage Pricing Order issued by the Regulatory Minister (Utilities Commission, 2017).</li> </ul> </li> </ul>                                                       |
| 2. Full cost recovery                           | <ul style="list-style-type: none"> <li>Charges are set to achieve full cost recovery, including a return on capital for all new expenditure</li> <li>If a CSO is required (e.g. in smaller, regional schemes), it is reported publically and removed over time (where practical)</li> </ul>                 | <ul style="list-style-type: none"> <li>It is unclear whether the Northern Territory is currently meeting the best practice standard for full cost recovery: <ul style="list-style-type: none"> <li>A lack of transparency in the Northern Territory means it is not possible to determine whether full cost recovery is being met or exceeded.</li> <li>The Northern Territory does report CSOs publically<sup>29</sup></li> </ul> </li> </ul>                                                                                               |
| 3. Approaches to recovering capital expenditure | <ul style="list-style-type: none"> <li>Renewals annuity or RAB (building blocks) as per NWI Pricing Principles</li> </ul>                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>It is unclear whether the Northern Territory is currently meeting the best practice standard for recovering capital expenditure: <ul style="list-style-type: none"> <li>A lack of transparency in the Northern Territory means it is not possible to determine whether a building blocks approach is currently used to recover capital expenditure.</li> <li>In 2007, the SGWC reported that a RAB (building blocks) approach was used in the Northern Territory (SGWC, 2007).</li> </ul> </li> </ul> |
| 4. Treatment of contributed assets              | <ul style="list-style-type: none"> <li>Developer charges and government contributions are excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers (NWI Pricing Principles provide further details)</li> </ul> | <ul style="list-style-type: none"> <li>It is unclear whether the Northern Territory is currently meeting the best practice standard for dealing with contributed assets: <ul style="list-style-type: none"> <li>However, in 2007, the SGWC reported that the Northern Territory does not include contributed assets in the calculation of the RAB (SGWC, 2007)</li> </ul> </li> </ul>                                                                                                                                                        |

<sup>29</sup> See for example, [https://www.powerwater.com.au/\\_data/assets/pdf\\_file/0010/95842/pwc\\_sci\\_2015-16.pdf](https://www.powerwater.com.au/_data/assets/pdf_file/0010/95842/pwc_sci_2015-16.pdf).

| Pricing element         | Base standard                                                                                                                                                                                                                                                                                                                          | Current performance                                                                                                                                                                                          |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5. Tariffs and metering | <ul style="list-style-type: none"> <li>On economic efficiency grounds, the water usage charge should comprise only a single usage charge. However, governments may decide on more than one tier for the water usage charge for policy reasons</li> <li>Costs disaggregated on the basis of location to the extent practical</li> </ul> | <ul style="list-style-type: none"> <li>The Northern Territory is meeting the base standard for tariffs which provides flexibility for a range of tariff structures and for postage stamp pricing.</li> </ul> |

## **Appendix C – State-by-state summary of progress against the best practice pricing standard**

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**Table 14 Current performance against the best practice pricing standard: New South Wales**

| Pricing element                    | Best practice standard                                                                                                                                                                                                                                                                                                                                                                                                                 | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Independent economic regulation | <ul style="list-style-type: none"> <li>Independent economic regulators set urban water prices</li> <li>Government does not intervene in the price setting process such that economic regulators are genuinely independent</li> </ul>                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>New South Wales is meeting the best practice standard for economic regulation in metropolitan areas and for bulk water supplied to regional areas in New South Wales. <ul style="list-style-type: none"> <li>IPART sets urban water prices in Sydney, Gosford and Wyong and in the Hunter region.</li> <li>IPART sets bulk water prices for WaterNSW who supply bulk water to Sydney Water and some regional councils.</li> <li>There is no evidence of systemic government interference in the price setting process.</li> </ul> </li> <li>The best practice standard is not currently being met for retail urban water in regional New South Wales, noting that movement to the standard for local councils should be subject to benefits exceeding costs.</li> <li>In regional areas: <ul style="list-style-type: none"> <li>Retail urban water prices are set by local councils in accordance with the <i>2007 Best-Practice Management of Water Supply and Sewerage Guidelines</i> and the <i>2011 Circular on Water Pricing Information for Local Water Utilities</i>.</li> </ul> </li> </ul> |
| 2. Cost transparency               | <ul style="list-style-type: none"> <li>Capital and operating costs are tested for prudence and efficiency by independent regulators</li> <li>All costs that are linked to clear service standards which are defined in consultation with customers</li> <li>No arbitrary exclusion of costs or investments so that all costs incurred by water service providers are within the remit of the independent economic regulator</li> </ul> | <ul style="list-style-type: none"> <li>The best practice standard is currently being met in metropolitan areas in New South Wales. <ul style="list-style-type: none"> <li>IPART tests capital and operating costs for prudence and efficiency.</li> <li>The Metropolitan Water Plan was developed to meet agreed levels of service and took into account community values and preferences (Metropolitan Water, 2017).</li> <li>There is no evidence of major investments or costs being excluded from the remit of the independent economic regulator.</li> </ul> </li> <li>New South Wales is meeting the best practice standard for bulk water supplied to regional areas:</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| Pricing element                                              | Best practice standard                                                                                                                                                                                                                                                                                                   | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                              |                                                                                                                                                                                                                                                                                                                          | <ul style="list-style-type: none"> <li>– IPART tests WaterNSW's capital and operating costs for prudence and efficiency (bulk water)</li> <li>– As part of the process to develop its pricing proposal for IPART, WaterNSW sought and received feedback from customers.</li> <li>– There is no evidence of major investments or costs being excluded from the remit of the independent economic regulator.</li> <li>• The best practice standard is not currently being met for retail urban water in regional New South Wales, noting that movement to the standard for local councils should be subject to benefits exceeding costs.</li> <li>• For retail water supplied by local councils in regional areas: <ul style="list-style-type: none"> <li>– Capital and operating costs incurred by local councils for retail urban water are not subject to independent tests for prudence and efficiency.</li> <li>– Under the <i>2007 Best-Practice Management of Water Supply and Sewerage Guidelines</i>, councils are encouraged to prepare a business plan which, amongst other things, should include a review of the council's external operating environment including customer demand, forecast growth requirements and anticipated service standards.</li> </ul> </li> </ul> |
| 3. Transparent cost sharing between customers and government | <ul style="list-style-type: none"> <li>• Transparent cost sharing framework in place to allocate costs between government and customers (e.g. for dam safety costs, flood mitigation works, and policy development and recreation costs incurred by service providers)</li> </ul>                                        | <ul style="list-style-type: none"> <li>• Cost sharing forms part of pricing considerations for rural water service providers where beneficiaries of services such as flood mitigation are broader than irrigation customers. However, there is no evidence of a transparent cost sharing framework for urban water. New South Wales does not appear to be meeting this element of the best practice standard.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 4. Full cost recovery                                        | <ul style="list-style-type: none"> <li>• Charges are set to achieve full cost recovery, including a return on capital for all new expenditure</li> <li>• Manage the impact of rising water bills on low income households such as pensioners through mechanisms other than broad based water price reductions</li> </ul> | <ul style="list-style-type: none"> <li>• Full cost recovery is being achieved in metropolitan areas in New South Wales.</li> <li>• Full cost recovery is not being met consistently and universally across regional areas in New South Wales: <ul style="list-style-type: none"> <li>– DPI Water (2017) reported that all local councils in New South Wales</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| Pricing element                                 | Best practice standard                                                                                                                                                                                                                                                                                                        | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                 | <ul style="list-style-type: none"> <li>If a CSO is required (e.g. in smaller, regional schemes), it is reported publically and removed over time (where practical)</li> </ul>                                                                                                                                                 | <p>are achieving full cost recovery although the state-wide median Economic Real Rate of Return was 2.3 per cent for water supply in 2015-16 which suggests a return on capital consistent with the WACC may not be in place for all councils.</p> <ul style="list-style-type: none"> <li>The PC (2011) made a similar finding, noting that “a significant number of regional water utilities in New South Wales....are not fully recovering costs (including capital costs). Based on publicly available financial indicators, the incidence of under-recovery of costs is more pronounced than a number of government agencies suggest, due to the way that full cost recovery is defined and assessed by those agencies”.</li> </ul> |
| 5. Approaches to recovering capital expenditure | <ul style="list-style-type: none"> <li>RAB (building blocks) calculated in accordance with NWI Pricing Principles (i.e. move away from renewals annuity where they are still in place)</li> </ul>                                                                                                                             | <ul style="list-style-type: none"> <li>Prices in metropolitan areas and for bulk water in regional areas where IPART has a role are set using a building blocks approach.</li> <li>Renewals annuities are used for recovering capital expenditure by local councils in New South Wales where 30-year renewals plan are developed in accordance with the <i>2007 Best-Practice Management of Water Supply and Sewerage Guidelines</i>. DPI Water are preparing tools and guidance materials on identifying and implementing 30-year renewals plans (DPI Water, 2017).</li> </ul>                                                                                                                                                         |
| 6. Treatment of contributed assets              | <ul style="list-style-type: none"> <li>Developer charges and government contributions are excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers (NWI Pricing Principles provide further details)</li> </ul>                   | <ul style="list-style-type: none"> <li>In metropolitan areas, contributed assets are deducted from the RAB.</li> <li>In regional New South Wales, it is unclear how contributed assets are treated, noting that NWI Principles require a return of capital (depreciation) to be recovered for contributed assets where a renewals annuity is used (SGWC, 2010).</li> </ul>                                                                                                                                                                                                                                                                                                                                                              |
| 7. Tariffs and metering                         | <ul style="list-style-type: none"> <li>Two-part tariffs with a single variable charge set at the marginal cost of supply</li> <li>Costs disaggregated on the basis of location to the extent practical</li> <li>Where councils are amalgamated or otherwise rationalised (e.g. shared services), prices should not</li> </ul> | <ul style="list-style-type: none"> <li>New South Wales is meeting the best practice standard for tariffs in metropolitan areas:: <ul style="list-style-type: none"> <li>Inclining Block Tariffs have been abolished.</li> <li>Postage stamp pricing is used, although developer charges provide a degree of cost differentiation.</li> </ul> </li> <li>New South Wales is meeting the best practice standard for metering in</li> </ul>                                                                                                                                                                                                                                                                                                 |

| Pricing element | Best practice standard                                                                                                                                                                                                                                                            | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                 | <p>be rationalised (i.e. no further aggregation of prices)</p> <ul style="list-style-type: none"> <li>Individual metering for new developments (including in multi-unit complexes) to ensure more customers have the flexibility to reduce their bill by adjusting use</li> </ul> | <p>metropolitan areas:</p> <ul style="list-style-type: none"> <li>Sydney Water requires most new multi-level buildings to be individually metered for individual occupancy and strata subdivisions, as of changes in September 2014. Compliance is required to connect to Sydney Water's network.</li> </ul> <p>• In regional areas:</p> <ul style="list-style-type: none"> <li>tariff structures vary, and while some local councils do use inclining block tariffs, the <i>2011 Circular on Water Pricing Information for Local Water Utilities</i> removed the requirement for local councils to adopt an inclining block tariff for their residential customers.</li> <li>There are issues with the structure of tariffs. For example, the New South Wales Government Guidelines require residential water usage charges to be set to recover at least 75 per cent of residential revenue (New South Wales Government, 2007)<sup>30</sup>. This is an arbitrary requirement which is inconsistent with marginal cost pricing.</li> <li>Yet to be determined whether amalgamated councils are rationalising prices.</li> <li>Metering arrangements vary across local councils.</li> </ul> |

<sup>30</sup> Councils with less than 4,000 connected properties are required to recover at least 50 per cent of residential revenue from water usage charges.

**Table 15 Current performance against the best practice pricing standard: Victoria**

| Pricing element                                              | Best practice standard                                                                                                                                                                                                                                                                                                                                                                                                                 | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Independent economic regulation                           | <ul style="list-style-type: none"> <li>Independent economic regulators set urban water prices</li> <li>Government does not intervene in the price setting process such that economic regulators are genuinely independent</li> </ul>                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>Victoria is meeting the best practice standard for economic regulation: <ul style="list-style-type: none"> <li>The Essential Services Commission (ESC) sets or approves prices for urban water throughout Victoria.</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                         |
| 2. Cost transparency                                         | <ul style="list-style-type: none"> <li>Capital and operating costs are tested for prudence and efficiency by independent regulators</li> <li>All costs that are linked to clear service standards which are defined in consultation with customers</li> <li>No arbitrary exclusion of costs or investments so that all costs incurred by water service providers are within the remit of the independent economic regulator</li> </ul> | <ul style="list-style-type: none"> <li>Victoria is meeting the best practice standard for cost transparency: <ul style="list-style-type: none"> <li>The ESC tests capital and operating costs for prudence and efficiency.</li> <li>The Water Industry Regulatory Order 2003 provides scope for the ESC to specify standards and conditions which water businesses are obliged to comply with, by either approving standards and conditions included in a water business's Water Plan, specifying them in a Code, or a combination of the two (VicWater, 2017).</li> <li>There is no evidence of investments being arbitrarily excluded from the remit of the ESC.</li> </ul> </li> </ul> |
| 3. Transparent cost sharing between customers and government | <ul style="list-style-type: none"> <li>Transparent cost sharing framework in place to allocate costs between government and customers (e.g. for dam safety costs, flood mitigation works, and policy development and recreation costs incurred by service providers)</li> </ul>                                                                                                                                                        | <ul style="list-style-type: none"> <li>There is no evidence of a transparent cost sharing framework for urban water. Victoria does not appear to be meeting this element of the best practice standard.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 4. Full cost recovery                                        | <ul style="list-style-type: none"> <li>Charges are set to achieve full cost recovery, including a return on capital for all new expenditure</li> <li>Manage the impact of rising water bills on low income households such as pensioners through mechanisms other than broad based water price reductions</li> <li>If a CSO is required (e.g. in smaller, regional schemes), it is reported publically and removed over</li> </ul>     | <ul style="list-style-type: none"> <li>Victoria is meeting the standard to achieve full cost recovery: <ul style="list-style-type: none"> <li>Charges are set to achieve full cost recovery.</li> </ul> </li> <li>Victoria is not meeting the best practice standard to manage the impact of water bills through means other than direct reductions to water bills: <ul style="list-style-type: none"> <li>Concessions are available to eligible customers for a 50 per cent discount on water bills up to a maximum cap.</li> </ul> </li> <li>Victoria is meeting the best practice standard for reporting CSOs:</li> </ul>                                                              |

| Pricing element                                 | Best practice standard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                 | time (where practical)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <ul style="list-style-type: none"> <li>Where a CSO is required, it is publically reported via a Ministerial Statement of Obligations.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5. Approaches to recovering capital expenditure | <ul style="list-style-type: none"> <li>RAB (building blocks) calculated in accordance with NWI Pricing Principles (i.e. move away from renewals annuity where they are still in place)</li> </ul>                                                                                                                                                                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>Victoria is meeting the best practice standard for recovering capital expenditure: <ul style="list-style-type: none"> <li>Prices are set using a building blocks approach.</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 6. Treatment of contributed assets              | <ul style="list-style-type: none"> <li>Developer charges and government contributions are excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers (NWI Pricing Principles provide further details)</li> </ul>                                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>Victoria is meeting the best practice standard for contributed assets: <ul style="list-style-type: none"> <li>Contributed assets are excluded from the RAB for pricing purposes.</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 7. Tariffs and metering                         | <ul style="list-style-type: none"> <li>Two-part tariffs with a single variable charge set at the marginal cost of supply</li> <li>Costs disaggregated on the basis of location to the extent practical</li> <li>Where councils are amalgamated or otherwise rationalised (e.g. shared services), prices should not be rationalised (i.e. no further aggregation of prices)</li> <li>Individual metering for new developments (including in multi-unit complexes) to ensure more customers have the flexibility to reduce their bill by adjusting use</li> </ul> | <ul style="list-style-type: none"> <li>Victoria is not meeting the best practice standard for tariffs: <ul style="list-style-type: none"> <li>IBTs are still in place in for some water retailers in Victoria</li> <li>Postage stamp pricing is used by water retailers, although separate systems get separate charges and developer charges provide a degree of cost differentiation. Bulk water charges are differentiated by location (system)</li> <li>The requirement for local councils is not applicable</li> </ul> </li> <li>Victoria is meeting best practice standards for metering: <ul style="list-style-type: none"> <li>The <i>Water Legislation Amendment Act 2013</i> encourages the installation of separate water meters for multiple occupancy buildings. The Act enables water corporations to require installation of separate meters as part of a property owner's application to connect to the corporation's network. The legislation encourages retrofitting separate water metres in older buildings where practicable and with agreement between property owners and water corporation.</li> </ul> </li> </ul> |

**Table 16 Current performance against the best practice pricing standard: Queensland**

| Pricing element                    | Best practice standard                                                                                                                                                                                                               | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Independent economic regulation | <ul style="list-style-type: none"> <li>Independent economic regulators set urban water prices</li> <li>Government does not intervene in the price setting process such that economic regulators are genuinely independent</li> </ul> | <ul style="list-style-type: none"> <li>Queensland is not meeting the best practice standard for economic regulation.</li> <li>In metropolitan Queensland (south east Queensland): <ul style="list-style-type: none"> <li>The QCA has been tasked with recommending (not setting) bulk water prices for south east Queensland's bulk water service provider (Seqwater) for the period 1 July 2018 to 30 June 2021</li> <li>The QCAs remit is subject to a range of government mandated conditions which compromises independence.</li> <li>In the recent past, the QCA had a price monitoring role for the distributor-retailers. The QCA no longer has a role in retail urban water. The QCAs last price monitoring review covered the period 2013-2015 Distributor-retailers (of which there are five) now set their own prices.</li> </ul> </li> <li>In regional Queensland, local councils set their own prices.</li> <li>There has been and continues to be intervention by Government in price setting in Queensland: <ul style="list-style-type: none"> <li>Previous governments directed the QCA to incorporate specific assets (termed drought assets) into the RAB at project cost (QCA, 2012).<sup>31</sup>. This meant there was no independent scrutiny of whether these costs were prudent and efficient.</li> <li>Currently, prices for bulk water provided by SunWater to local councils in regional Queensland are subject to government intervention which caps price increases to CPI.</li> </ul> </li> </ul> |
| 2. Cost transparency               | <ul style="list-style-type: none"> <li>Capital and operating costs are tested for prudence and efficiency by independent regulators</li> </ul>                                                                                       | <ul style="list-style-type: none"> <li>Currently, Queensland is partially meeting the standard for cost transparency.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

<sup>31</sup> Drought assets included the desalination plant at Tugun and comprised approximately \$4.6 billion in capital expenditure in total (QCA, 2012).

| Pricing element                                              | Best practice standard                                                                                                                                                                                                                                                                                                                                                                                                                                          | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                              | <ul style="list-style-type: none"> <li>• All costs that are linked to clear service standards which are defined in consultation with customers</li> <li>• No arbitrary exclusion of costs or investments so that all costs incurred by water service providers are within the remit of the independent economic regulator</li> </ul>                                                                                                                            | <ul style="list-style-type: none"> <li>– While the QCA is expected to test the prudence and efficiency of Seqwater's bulk water costs, there is no independent testing of costs incurred by the five distributor-retailers and costs incurred by local councils.</li> <li>– Level of service objectives for bulk water supply in south east Queensland are specified in the <i>Water Regulation 2002</i>.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 3. Transparent cost sharing between customers and government | <ul style="list-style-type: none"> <li>• Transparent cost sharing framework in place to allocate costs between government and customers (e.g. for dam safety costs, flood mitigation works, and policy development and recreation costs incurred by service providers)</li> </ul>                                                                                                                                                                               | <ul style="list-style-type: none"> <li>• There is no evidence of a transparent cost sharing framework for urban water. Queensland does not appear to be meeting this element of the best practice standard.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 4. Full cost recovery                                        | <ul style="list-style-type: none"> <li>• Charges are set to achieve full cost recovery, including a return on capital for all new expenditure</li> <li>• Manage the impact of rising water bills on low income households such as pensioners through mechanisms other than broad based water price reductions</li> <li>• If a CSO is required (e.g. in smaller, regional schemes), it is reported publically and removed over time (where practical)</li> </ul> | <ul style="list-style-type: none"> <li>• Performance against the best practice standard in Queensland varies and is generally inconsistent with the best practice standard for full cost recovery: <ul style="list-style-type: none"> <li>– Prices for bulk water in south east Queensland are transitioning to full cost recovery in accordance with the government's specified price path (to 2027-2028).</li> <li>– The QCAs price monitoring role has been wound back which means there is insufficient evidence to determine whether distributor-retailers are achieving or exceeding full cost recovery.</li> <li>– Full cost recovery for bulk water supplied to regional councils is subject to a CPI price cap increase and full cost recovery is not being achieved.</li> <li>– Full cost recovery for retail water in regional areas is mixed across local council areas however there is insufficient information to assess whether full cost recovery is being achieved or exceeded. However, in 2011, the PC noted that the Local Government Association of Queensland has indicated that "water businesses have been generating revenue that has been transferred to other aspects of council business; effectively creating cross-subsidies (PC, 2011).</li> </ul> </li> </ul> |

| Pricing element                                 | Best practice standard                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5. Approaches to recovering capital expenditure | <ul style="list-style-type: none"> <li>RAB (building blocks) calculated in accordance with NWI Pricing Principles (i.e. move away from renewals annuity where they are still in place)</li> </ul>                                                                                                                                                                                                                                                                                                    | <ul style="list-style-type: none"> <li>Queensland is partially meeting the standard for recovering capital expenditure: <ul style="list-style-type: none"> <li>Prices for bulk water in south east Queensland are set using a building blocks approach.</li> <li>Previous price monitoring by the QCA indicates distributor-retailers in south east Queensland have used a building blocks approach in the past. There is insufficient information to determine whether these arrangements still prevail.</li> <li>There is insufficient information to determine how capital expenditure is recovered for bulk water supplied to regional councils</li> <li>Renewals annuities are used in regional areas where local councils provide water services.</li> </ul> </li> </ul> |
| 6. Treatment of contributed assets              | <ul style="list-style-type: none"> <li>Developer charges and government contributions are excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers (NWI Pricing Principles provide further details)</li> </ul>                                                                                                                                                                                          | <ul style="list-style-type: none"> <li>Queensland is meeting the best practice standard in metropolitan areas: <ul style="list-style-type: none"> <li>In metropolitan areas, contributed assets are (or have in the past in the case of distributor-retailers where price monitoring was in place previously) deducted from the RAB.</li> </ul> </li> <li>There is insufficient information to determine how contributed assets are treated for bulk water supplied to regional councils</li> <li>There is insufficient information for how contributed assets are treated by local councils.</li> </ul>                                                                                                                                                                       |
| 7. Tariffs and metering                         | <ul style="list-style-type: none"> <li>Two-part tariffs with a single variable charge set at the marginal cost of supply</li> <li>Costs disaggregated on the basis of location to the extent practical</li> <li>Where councils are amalgamated or otherwise rationalised (e.g. shared services), prices should not be rationalised (i.e. no further aggregation of prices)</li> <li>Individual metering for new developments (including in multi-unit complexes) to ensure more customers</li> </ul> | <ul style="list-style-type: none"> <li>Queensland is not meeting the best practice standard for tariffs: <ul style="list-style-type: none"> <li>IBTs are in place for major retail water utilities in south East Queensland and for some local councils. There are substantial differences in tariff design across councils (Department of Energy and Water Supply, 2017).</li> <li>Postage stamp pricing is used for bulk water and retail water in metropolitan areas, although developer charges provide a degree of cost differentiation at the retail level.</li> <li>Some councils in Queensland were amalgamated between 2008 and</li> </ul> </li> </ul>                                                                                                                |

| Pricing element | Best practice standard                                     | Current performance                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                 | have the flexibility to reduce their bill by adjusting use | <p>2010. No council amalgamations are currently underway.</p> <ul style="list-style-type: none"> <li>• Queensland is meeting the best practice standard for metering: <ul style="list-style-type: none"> <li>– Under the Queensland Plumbing and Wastewater Code, it is mandatory to install sub-meters in all new multi-unit developments and some non-residential premises.</li> </ul> </li> </ul> |

**Table 17 Current performance against the best practice pricing standard: South Australia**

| Pricing element                                              | Best practice standard                                                                                                                                                                                                                                                                                                                                                                                                                                    | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Independent economic regulation                           | <ul style="list-style-type: none"> <li>Independent economic regulators set urban water prices</li> <li>Government does not intervene in the price setting process such that economic regulators are genuinely independent</li> </ul>                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>South Australia is meeting the best practice standard for independent economic regulation: <ul style="list-style-type: none"> <li>ESCOSA sets SA Water's maximum allowable revenue.</li> <li>There is no evidence that government intervenes in water price setting.</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                           |
| 2. Cost transparency                                         | <ul style="list-style-type: none"> <li>Capital and operating costs are tested for prudence and efficiency by independent regulators</li> <li>All costs that are linked to clear service standards which are defined in consultation with customers</li> <li>No arbitrary exclusion of costs or investments so that all costs incurred by water service providers are within the remit of the independent economic regulator</li> </ul>                    | <ul style="list-style-type: none"> <li>South Australia is meeting the best practice standard for cost transparency: <ul style="list-style-type: none"> <li>Capital and operating costs are tested for prudence and efficiency by ESCOSA</li> <li>ESCOSA sets service standards and in doing so, took into account the views of customers and, in particular, the insights gained by SA Water through the Your Say program (ESCOSA, 2016).</li> <li>There is no evidence of costs or investments being excluded from ESCOSAs remit.</li> </ul> </li> </ul>                                                                                                                    |
| 3. Transparent cost sharing between customers and government | <ul style="list-style-type: none"> <li>Transparent cost sharing framework in place to allocate costs between government and customers (e.g. for dam safety costs, flood mitigation works, and policy development and recreation costs incurred by service providers)</li> </ul>                                                                                                                                                                           | <ul style="list-style-type: none"> <li>There is no evidence of a transparent cost sharing framework based on a desktop review. South Australia does not appear to be meeting this element of the best practice standard.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 4. Full cost recovery                                        | <ul style="list-style-type: none"> <li>Charges are set to achieve full cost recovery, including a return on capital for all new expenditure</li> <li>Manage the impact of rising water bills on low income households such as pensioners through mechanisms other than broad based water price reductions</li> <li>If a CSO is required (e.g. in smaller, regional schemes), it is reported publically and removed over time (where practical)</li> </ul> | <ul style="list-style-type: none"> <li>South Australia is meeting the best practice standard for full cost recovery but would need to alter the way concessions are implemented to fully meet the standard: <ul style="list-style-type: none"> <li>SA Water's revenue cap as determined by ESCOSA is consistent with achieving full cost recovery. Assuming that prices, which are set by SA Water and government are capable of achieving this revenue then South Australia is achieving full cost recovery.</li> <li>The South Australian Water and Sewerage Concession Scheme stipulates that eligible customers can receive a 30 per cent (capped</li> </ul> </li> </ul> |

| Pricing element                                 | Best practice standard                                                                                                                                                                                                                                                                                                                                                                      | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                 |                                                                                                                                                                                                                                                                                                                                                                                             | <p>maximum) reduction in their water bills (fixed and variable charges) that is deducted from the bill in the fourth quarter of the year (SA Government, 2015). This approach is not strictly in accordance with the standard.</p> <ul style="list-style-type: none"> <li>– The South Australian Government provides a CSO to cover any revenue shortfall associated with the state-wide pricing facility. CSOs paid to SA Water are published in the South Australian Government Gazette (ESCOSA, 2016).</li> </ul>                |
| 5. Approaches to recovering capital expenditure | <ul style="list-style-type: none"> <li>• RAB (building blocks) calculated in accordance with NWI Pricing Principles (i.e. move away from renewals annuity where they are still in place)</li> </ul>                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>• South Australia is meeting the best practice standard for recovering capital expenditure: <ul style="list-style-type: none"> <li>– A Pricing Order issued to ESCOSA by the Treasurer requires that determinations must be based on a ‘building blocks’ approach (ESCOSA, 2016).</li> <li>– ESCOSA is required to adopt the NWI Pricing Principles in making its determinations.</li> </ul> </li> </ul>                                                                                     |
| 6. Treatment of contributed assets              | <ul style="list-style-type: none"> <li>• Developer charges and government contributions are excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers (NWI Pricing Principles provide further details)</li> </ul>                                                                               | <ul style="list-style-type: none"> <li>• South Australia is meeting the best practice standard for contributed assets: <ul style="list-style-type: none"> <li>– ESCOSA is required to adopt the NWI Pricing Principles in making its determinations, including requirements for contributed assets.</li> </ul> </li> </ul>                                                                                                                                                                                                          |
| 7. Tariffs and metering                         | <ul style="list-style-type: none"> <li>• Two-part tariffs with a single variable charge set at the marginal cost of supply</li> <li>• Costs disaggregated on the basis of location to the extent practical</li> <li>• Where councils are amalgamated or otherwise rationalised (e.g. shared services), prices should not be rationalised (i.e. no further aggregation of prices)</li> </ul> | <ul style="list-style-type: none"> <li>• South Australia is not meeting the best practice standard for tariffs and metering: <ul style="list-style-type: none"> <li>– SA Water’s residential customers are charged under a two-part, IBT with three price tiers<sup>32</sup>.</li> <li>– The South Australian Government’s Ministerial Direction for the most recent price determination includes a “state-wide pricing facility – to ensure the tariff or tariff components for drinking water and sewerage</li> </ul> </li> </ul> |

<sup>32</sup> Alternative tariff structures apply for selected customers, including those in specific service areas.

| Pricing element | Best practice standard                                                                                                                                                                                             | Current performance                                                                                                                                                                                                                                                                                                                        |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                 | <ul style="list-style-type: none"> <li>Individual metering for new developments (including in multi-unit complexes) to ensure more customers have the flexibility to reduce their bill by adjusting use</li> </ul> | <p>services are the same, or result in a similar outcome, for any customer, irrespective of the customer's location" (ESCOSA, 2016).</p> <ul style="list-style-type: none"> <li>– The requirement for local councils is not applicable.</li> <li>– There are no requirements to individually meter new multi-unit developments.</li> </ul> |

**Table 18 Current performance against the best practice pricing standard: Western Australia**

| Pricing element                                   | Best practice standard                                                                                                                                                                                                                                                                                                                                                                                                                 | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Independent economic regulation                | <ul style="list-style-type: none"> <li>Independent economic regulators set urban water prices</li> <li>Government does not intervene in the price setting process such that economic regulators are genuinely independent</li> </ul>                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>Western Australia is not meeting the standard for economic regulation: <ul style="list-style-type: none"> <li>The Economic Regulation Authority (ERA) is tasked by government to undertake an Inquiry into the Efficient Costs and Tariffs of the Water Corporation, Aqwest and the Busselton Water Board. This inquiry is used to guide the water businesses pricing submission to Government but government sets prices in consultation with the water businesses. Details on decisions are Cabinet-in-Confidence. The ERAs last Inquiry was published in 2013 and addressed a three year period commencing on 1 July 2013. It is understood a new Inquiry is currently underway.</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 2. Cost transparency                              | <ul style="list-style-type: none"> <li>Capital and operating costs are tested for prudence and efficiency by independent regulators</li> <li>All costs that are linked to clear service standards which are defined in consultation with customers</li> <li>No arbitrary exclusion of costs or investments so that all costs incurred by water service providers are within the remit of the independent economic regulator</li> </ul> | <ul style="list-style-type: none"> <li>Western Australia is not meeting the standard for cost transparency: <ul style="list-style-type: none"> <li>The ERAs 2013 Inquiry tested the prudence and efficiency of capital and operating expenditure however it is unclear whether the ERAs findings informed prices. Furthermore, in 2013, the ERA noted that “the current regulatory framework could be strengthened. One of the ways that this could be achieved is by not having customers pay for any significant capital expenditure that has not been subjected to a review by the Authority. This may occur for example, if capital expenditure not foreseen at the time of the ERAs review is incurred by a water service provider.</li> <li>Western Australia appears to fall below best practice standards for clear and consultative service standards. There do not appear to be any frameworks or requirements for engagement with customers.</li> <li>Given the limitations on the ERA to provide recommendations to government and the fact that prices are set by government, it is not possible to determine whether Western Australia is meeting the standard to ensure all costs are considered as part of setting prices.</li> </ul> </li> </ul> |
| 3. Transparent cost sharing between customers and | <ul style="list-style-type: none"> <li>Transparent cost sharing framework in place to allocate costs between government and customers (e.g. for dam safety costs, flood mitigation works,</li> </ul>                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>Western Australia is not meeting this commitment. There is a general lack of transparency as to how water prices are set and no evidence that a transparent cost sharing framework is in place.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| Pricing element                                 | Best practice standard                                                                                                                                                                                                                                                                                                                                                                                                                                          | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| government                                      | and policy development and recreation costs incurred by service providers)                                                                                                                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>– The ERAs 2013 inquiry addresses the issue of cost allocation for Dam Safety and recreation costs, largely in the context of Harvey Water which supplies water for irrigation and industrial use.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 4. Full cost recovery                           | <ul style="list-style-type: none"> <li>• Charges are set to achieve full cost recovery, including a return on capital for all new expenditure</li> <li>• Manage the impact of rising water bills on low income households such as pensioners through mechanisms other than broad based water price reductions</li> <li>• If a CSO is required (e.g. in smaller, regional schemes), it is reported publically and removed over time (where practical)</li> </ul> | <ul style="list-style-type: none"> <li>• It is unclear whether Western Australia is meeting the standard for full cost recovery: <ul style="list-style-type: none"> <li>– Prices are set by government and there is insufficient evidence to determine whether prices are set to meet full cost recovery. However, the ERA (2013) noted that in their 2007 inquiry, “charges in place at the time were significantly below cost-reflective charges. To avoid a rapid increase in charges, the ERA recommended that charges be transitioned to cost-reflective levels over a ten-year period (2007/08 to 2016/17). These recommendations were implemented following the release of the 2007 inquiry. As part of [the 2013] inquiry, the ERA...continued with the same phase in approach such that recommended charges will continue to gradually increase until 2016/17, at which time they will be cost-reflective”.</li> <li>– Concessions to pensioners, seniors and various exempt bodies are provided on annual service charges, water consumption charges and other fees and charges levied by Water Corporation. Western Australia is not strictly meeting this element of the standard.</li> <li>– Government provides an operating subsidy (CSO) to Water Corporation to account for revenue shortfall attributable to the provision services to regional and remote area services, and concessions to customers. These subsidies are publically reported in Water Corporation’s Annual Report.</li> </ul> </li> </ul> |
| 5. Approaches to recovering capital expenditure | <ul style="list-style-type: none"> <li>• RAB (building blocks) calculated in accordance with NWI Pricing Principles (i.e. move away from renewals annuity where they are still in place)</li> </ul>                                                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>• It is unclear whether Western Australia is meeting this standard: <ul style="list-style-type: none"> <li>– The ERA uses a building block approach to calculate an efficient level of costs in its recommendations to government however it is unclear whether this approach is used to set prices.</li> <li>– In 2007, the SGWC stated that a building blocks approach was used in</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| Pricing element                    | Best practice standard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Western Australia.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 6. Treatment of contributed assets | <ul style="list-style-type: none"> <li>Developer charges and government contributions are excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers (NWI Pricing Principles provide further details)</li> </ul>                                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>It is unclear whether Western Australia is meeting this standard: <ul style="list-style-type: none"> <li>In 2013, the ERA stated that “The existing initial regulatory asset value of the Water Corporation is incorrect because it includes a value for assets that have been gifted to the Water Corporation by developers (developer contributions)” (ERA, 2013).</li> <li>In response to this finding, the Water Corporation stated that it “supports a pricing model where developer contributions are excluded” (ERA, 2013).</li> <li>The ERA recommended developer charges be excluded from the RAB however it is not known whether this recommendation was implemented.</li> </ul> </li> </ul> |
| 7. Tariffs and metering            | <ul style="list-style-type: none"> <li>Two-part tariffs with a single variable charge set at the marginal cost of supply</li> <li>Costs disaggregated on the basis of location to the extent practical</li> <li>Where councils are amalgamated or otherwise rationalised (e.g. shared services), prices should not be rationalised (i.e. no further aggregation of prices)</li> <li>Individual metering for new developments (including in multi-unit complexes) to ensure more customers have the flexibility to reduce their bill by adjusting use</li> </ul> | <ul style="list-style-type: none"> <li>Western Australia is not meeting the best practice standard for tariffs and metering: <ul style="list-style-type: none"> <li>In metropolitan areas, Water Corporation applies a two-part, IBT with three tiers.</li> <li>A state-wide tariff cap policy is in place in Western Australia.</li> <li>The requirement for local councils is not applicable</li> <li>Western Australia appears to fall below best practice standards for individual metering, with no apparent requirement to install individual meters in new developments based on a desktop review.</li> </ul> </li> </ul>                                                                                                              |

**Table 19 Current performance against the best practice pricing standard: Tasmania**

| Pricing element                                              | Best practice standard                                                                                                                                                                                                                                                                                                                                                                                                                 | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Independent economic regulation                           | <ul style="list-style-type: none"> <li>Independent economic regulators set urban water prices</li> <li>Government does not intervene in the price setting process such that economic regulators are genuinely independent</li> </ul>                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>Tasmania is meeting the best practice standard for independent economic regulation: <ul style="list-style-type: none"> <li>The Office of the Tasmanian Economic Regulator (OTTER) sets water prices.</li> <li>There is no evidence that government intervenes in water price setting.</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 2. Cost transparency                                         | <ul style="list-style-type: none"> <li>Capital and operating costs are tested for prudence and efficiency by independent regulators</li> <li>All costs that are linked to clear service standards which are defined in consultation with customers</li> <li>No arbitrary exclusion of costs or investments so that all costs incurred by water service providers are within the remit of the independent economic regulator</li> </ul> | <ul style="list-style-type: none"> <li>Tasmania is meeting the best practice standard for cost transparency: <ul style="list-style-type: none"> <li>Costs are tested for prudence and efficiency by the OTTER.</li> <li>A service standards framework has been agreed with the OTTER and TasWater state that the service standards will be reflected in a revised version of the Water Code (TasWater, 2017). TasWater's long-term strategic plan provides the framework for engaging with customers, stakeholders and regulators to prioritise expenditure required to address issues including improvements to drinking water quality, environmental compliance and dam safety upgrades (TasWater, 2017). TasWater is actively engaging with customers.</li> <li>There is no evidence of costs being excluded.</li> </ul> </li> </ul> |
| 3. Transparent cost sharing between customers and government | <ul style="list-style-type: none"> <li>Transparent cost sharing framework in place to allocate costs between government and customers (e.g. for dam safety costs, flood mitigation works, and policy development and recreation costs incurred by service providers)</li> </ul>                                                                                                                                                        | <ul style="list-style-type: none"> <li>There is no evidence of a transparent cost sharing framework based on a desktop review. Tasmania does not appear to be meeting this element of the best practice standard.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 4. Full cost recovery                                        | <ul style="list-style-type: none"> <li>Charges are set to achieve full cost recovery, including a return on capital for all new expenditure</li> <li>Manage the impact of rising water bills on low income households such as pensioners through mechanisms other than broad based water price reductions</li> </ul>                                                                                                                   | <ul style="list-style-type: none"> <li>Tasmania is partially meeting the standard for full cost recovery: <ul style="list-style-type: none"> <li>Tasmania is currently transitioning to full cost recovery in accordance with the legislative requirement for prices to reflect full costs by 2020. There has been considerable reform in Tasmania over the last decade and this transition represents an important step in Tasmania's reform journey.</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                           |

| Pricing element                                 | Best practice standard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                 | <ul style="list-style-type: none"> <li>If a CSO is required (e.g. in smaller, regional schemes), it is reported publically and removed over time (where practical)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>TasWater is proposing a cap on price increases of 4.6% per annum to manage impacts on customer bills over the next price period (TasWater, 2017). The Tasmanian Government provides concessions to eligible customers on the fixed component of the water charge under the Water and Sewerage Industry (Community Service Obligation) Act 2009.</li> <li>TasWater can make two applications per annum for a CSO to recover foregone revenue under the concessions policy.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5. Approaches to recovering capital expenditure | <ul style="list-style-type: none"> <li>RAB (building blocks) calculated in accordance with NWI Pricing Principles (i.e. move away from renewals annuity where they are still in place)</li> </ul>                                                                                                                                                                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>Tasmania is meeting the best practice standard for recovering capital expenditure: <ul style="list-style-type: none"> <li>The OTTER requires a building block approach to be used.</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 6. Treatment of contributed assets              | <ul style="list-style-type: none"> <li>Developer charges and government contributions are excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers (NWI Pricing Principles provide further details)</li> </ul>                                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>Tasmania is meeting the best practice standard for contributed assets: <ul style="list-style-type: none"> <li>Regulated entities are not permitted to earn a rate of return on and of contributed assets.</li> <li>TasWater removes contributed assets from the RAB.</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 7. Tariffs and metering                         | <ul style="list-style-type: none"> <li>Two-part tariffs with a single variable charge set at the marginal cost of supply</li> <li>Costs disaggregated on the basis of location to the extent practical</li> <li>Where councils are amalgamated or otherwise rationalised (e.g. shared services), prices should not be rationalised (i.e. no further aggregation of prices)</li> <li>Individual metering for new developments (including in multi-unit complexes) to ensure more customers have the flexibility to reduce their bill by adjusting use</li> </ul> | <ul style="list-style-type: none"> <li>Tasmania partially meeting the best practice standard for tariffs and metering: <ul style="list-style-type: none"> <li>A two-part tariff with a single variable charge is levied.</li> <li>The Tasmanian Water and Sewerage Industry (Pricing and Related Matters) Regulations (2011) provide flexibility for location-based pricing based on pricing zones if, in the opinion of the Regulator, the benefits of implementing such zones would outweigh the costs of doing so. However, TasWater's pricing proposal for 2018-2021 proposes the current state-wide pricing arrangement remains in place. A final decision will be taken on this over the course of the next year.</li> <li>The requirement for local councils is not applicable</li> <li>For new multi-unit and strata developments the installation of sub-meters is a choice of the property owner. There is no legislative requirement in place.</li> </ul> </li> </ul> |

**Table 20 Current performance against the best practice pricing standard: Australian Capital Territory**

| Pricing element                                              | Best practice standard                                                                                                                                                                                                                                                                                                                                                                                                                                    | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Independent economic regulation                           | <ul style="list-style-type: none"> <li>Independent economic regulators set urban water prices</li> <li>Government does not intervene in the price setting process such that economic regulators are genuinely independent</li> </ul>                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>The Australian Capital Territory is meeting the best practice standard for independent economic regulation: <ul style="list-style-type: none"> <li>The Independent Competition and Regulatory Commission (ICRC) sets water prices.</li> <li>There is no evidence that government intervenes in water price setting.</li> </ul> </li> </ul>                                                                                                                                                         |
| 2. Cost transparency                                         | <ul style="list-style-type: none"> <li>Capital and operating costs are tested for prudence and efficiency by independent regulators</li> <li>All costs that are linked to clear service standards which are defined in consultation with customers</li> <li>No arbitrary exclusion of costs or investments so that all costs incurred by water service providers are within the remit of the independent economic regulator</li> </ul>                    | <ul style="list-style-type: none"> <li>The Australian Capital Territory is meeting the best practice standard for cost transparency: <ul style="list-style-type: none"> <li>Costs are tested for prudence and efficiency by the ICRC.</li> <li>Icon Water has a number of specific service standards which have been developed in consultation with community expectations; including what the community are prepared to pay for</li> <li>There is no evidence of costs being excluded from the remit of the ICRC.</li> </ul> </li> </ul> |
| 3. Transparent cost sharing between customers and government | <ul style="list-style-type: none"> <li>Transparent cost sharing framework in place to allocate costs between government and customers (e.g. for dam safety costs, flood mitigation works, and policy development and recreation costs incurred by service providers)</li> </ul>                                                                                                                                                                           | <ul style="list-style-type: none"> <li>There is no evidence of a transparent cost sharing framework based on a desktop review. The Australian Capital Territory does not appear to be meeting this element of the best practice standard.</li> </ul>                                                                                                                                                                                                                                                                                      |
| 4. Full cost recovery                                        | <ul style="list-style-type: none"> <li>Charges are set to achieve full cost recovery, including a return on capital for all new expenditure</li> <li>Manage the impact of rising water bills on low income households such as pensioners through mechanisms other than broad based water price reductions</li> <li>If a CSO is required (e.g. in smaller, regional schemes), it is reported publically and removed over time (where practical)</li> </ul> | <ul style="list-style-type: none"> <li>The Australian Capital Territory is meeting the best practice standard for full cost recovery, managing bill impacts and reporting CSOs: <ul style="list-style-type: none"> <li>Full cost recovery is being achieved in the Australian Capital Territory.</li> <li>A combined Utilities Concession which covers energy and water costs is applied to an eligible customer's electricity account meaning customers face a full water</li> </ul> </li> </ul>                                         |

| Pricing element                                                                  | Best practice standard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <p>charge.</p> <ul style="list-style-type: none"> <li>Icon Water receives a small CSO which is reported publically in Icon Water's Annual Report.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5. Approaches to recovering capital expenditure                                  | <ul style="list-style-type: none"> <li>RAB (building blocks) calculated in accordance with NWI Pricing Principles (i.e. move away from renewals annuity where they are still in place)</li> </ul>                                                                                                                                                                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>The Australian Capital Territory is meeting the best practice standard for recovering capital expenditure: <ul style="list-style-type: none"> <li>Prices are set using a building blocks approach.</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 6. Treatment of contributed assets (same across base and best practice standard) | <ul style="list-style-type: none"> <li>Developer charges and government contributions are excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers (NWI Pricing Principles provide further details)</li> </ul>                                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>The Australian Capital Territory is meeting the best practice standard for contributed assets.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 7. Tariffs and metering                                                          | <ul style="list-style-type: none"> <li>Two-part tariffs with a single variable charge set at the marginal cost of supply</li> <li>Costs disaggregated on the basis of location to the extent practical</li> <li>Where councils are amalgamated or otherwise rationalised (e.g. shared services), prices should not be rationalised (i.e. no further aggregation of prices)</li> <li>Individual metering for new developments (including in multi-unit complexes) to ensure more customers have the flexibility to reduce their bill by adjusting use</li> </ul> | <ul style="list-style-type: none"> <li>The Australian Capital Territory is not meeting the best practice standard for tariffs and metering: <ul style="list-style-type: none"> <li>Icon Water levies a two-part, two-tier IBT and is proposing to retain the IBT in the next price path (2018-2023) (Icon Water, 2017). This is not consistent with the standard.</li> <li>Icon water applies a territory-wide charge which is not strictly consistent with the standard noting that it may not be practical or cost effective to disaggregate prices further.</li> <li>The requirement for local councils is not applicable</li> <li>ACT legislation only allows for individual meters to be installed for new and older developments with the unopposed agreement of the body corporate/customers.</li> </ul> </li> </ul> |

**Table 21 Current performance against the best practice pricing standard: Northern Territory**

| Pricing element                                              | Best practice standard                                                                                                                                                                                                                                                                                                                                                                                                                         | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Independent economic regulation                           | <ul style="list-style-type: none"> <li>Independent economic regulators set urban water prices</li> <li>Government does not intervene in the price setting process such that economic regulators are genuinely independent</li> </ul>                                                                                                                                                                                                           | <ul style="list-style-type: none"> <li>The Northern Territory is not meeting the best practice standard for independent economic regulation: <ul style="list-style-type: none"> <li>The independent economic regulator (Utilities Commission) does not have a role in setting urban water prices. Rather, water charges are regulated by the Territory Government via a Water and Sewerage Pricing Order issued by the Regulatory Minister (Utilities Commission, 2017).</li> </ul> </li> </ul>                                                                                   |
| 2. Cost transparency                                         | <ul style="list-style-type: none"> <li>Capital and operating costs are tested for prudence and efficiency by independent regulators</li> <li>All costs are linked to clear service standards which are defined in consultation with customers</li> <li>No arbitrary exclusion of costs or investments so that all costs incurred by water service providers are within the remit of the independent economic regulator</li> </ul>              | <ul style="list-style-type: none"> <li>The Northern Territory is not meeting the best practice standard for cost transparency: <ul style="list-style-type: none"> <li>Costs are not tested for prudence and efficiency by the economic regulator.</li> <li>Minimum standards that a licensed entity must meet in providing water supply services to customers are set by the Minister; however there is no evidence that these standards are developed in consultation with the community.</li> <li>There is no transparency on how costs underpin prices.</li> </ul> </li> </ul> |
| 3. Transparent cost sharing between customers and government | <ul style="list-style-type: none"> <li>Transparent cost sharing framework in place to allocate costs between government and customers (e.g. for dam safety costs, flood mitigation works, and policy development and recreation costs incurred by service providers)</li> </ul>                                                                                                                                                                | <ul style="list-style-type: none"> <li>The Northern Territory is not meeting the best practice standard for cost sharing between customers and government: <ul style="list-style-type: none"> <li>There is no transparency on how costs are shared between customers and government.</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                       |
| 4. Full cost recovery                                        | <ul style="list-style-type: none"> <li>Charges are set to achieve full cost recovery, including a return on capital for all new expenditure</li> <li>Manage the impact of rising water bills on low income households such as pensioners through mechanisms other than broad based water price reductions</li> <li>If a CSO is required (e.g. in smaller, regional schemes), it is reported publically and removed over time (where</li> </ul> | <ul style="list-style-type: none"> <li>It is unclear whether the Northern Territory is currently meeting the best practice standard for full cost recovery: <ul style="list-style-type: none"> <li>A lack of transparency in the Northern Territory means it is not possible to determine whether full cost recovery is being met or exceeded.</li> </ul> </li> <li>The Northern Territory is not meeting the standard for ensuring customers face the full price signal. For example, the state-wide</li> </ul>                                                                  |

| Pricing element                                 | Best practice standard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Current performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                 | practical)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>charge (uniform tariff concession) results in a cross-subsidy.</li> <li>The Northern Territory does report CSOs publically<sup>33</sup></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5. Approaches to recovering capital expenditure | <ul style="list-style-type: none"> <li>RAB (building blocks) calculated in accordance with NWI Pricing Principles (i.e. move away from renewals annuity where they are still in place)</li> </ul>                                                                                                                                                                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>It is unclear whether the Northern Territory is currently meeting the best practice standard for recovering capital expenditure: <ul style="list-style-type: none"> <li>A lack of transparency in the Northern Territory means it is not possible to determine whether a building blocks approach is currently used to recover capital expenditure.</li> <li>In 2007, the SGWC reported that a RAB (building blocks) approach was used in the Northern Territory (SGWC, 2007).</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                      |
| 6. Treatment of contributed assets              | <ul style="list-style-type: none"> <li>Developer charges and government contributions are excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers (NWI Pricing Principles provide further details)</li> </ul>                                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>It is unclear whether the Northern Territory is currently meeting the best practice standard for dealing with contributed assets: <ul style="list-style-type: none"> <li>However, in 2007, the SGWC reported that the Northern Territory does not include contributed assets in the calculation of the RAB (SGWC, 2007)</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 7. Tariffs and metering                         | <ul style="list-style-type: none"> <li>Two-part tariffs with a single variable charge set at the marginal cost of supply</li> <li>Costs disaggregated on the basis of location to the extent practical</li> <li>Where councils are amalgamated or otherwise rationalised (e.g. shared services), prices should not be rationalised (i.e. no further aggregation of prices)</li> <li>Individual metering for new developments (including in multi-unit complexes) to ensure more customers have the flexibility to reduce their bill by adjusting use</li> </ul> | <ul style="list-style-type: none"> <li>The Northern Territory is partially meeting the best practice standard for tariffs: <ul style="list-style-type: none"> <li>A two-part tariff with a single variable charge is levied in the Northern Territory.</li> <li>A state-wide approach to pricing is applied meaning that the costs of servicing different locations are not revealed.</li> <li>The requirement for local councils is not applicable.</li> </ul> </li> <li>The Northern Territory is not meeting the best practice standard for metering: <ul style="list-style-type: none"> <li>There is no requirement to install separate meters in new developments or retrofit older buildings. Metering is the choice and responsibility of the body corporate in a unit development.</li> </ul> </li> </ul> |

<sup>33</sup> See for example, [https://www.powerwater.com.au/\\_data/assets/pdf\\_file/0010/95842/pwc\\_sci\\_2015-16.pdf](https://www.powerwater.com.au/_data/assets/pdf_file/0010/95842/pwc_sci_2015-16.pdf).

# Document history

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## Revision:

|              |                            |
|--------------|----------------------------|
| Revision no. | Three                      |
| Author/s     | Rod Coulton, Joe Lorimer   |
| Checked      | Will Fargher, Chris Olszak |
| Approved     | Will Fargher               |

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