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2013 WATER PRICE REVIEW

TARIFF ISSUES PAPER

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1.1 The 2013 Water Price Review

In 2012, we will begin reviewing the prices to apply to water and sewerage services provided by Victoria's 19 water businesses for the period July 2013 to June 2018.

Each business will be required to release a draft Water Plan before formally submitting its final Water Plan on which its prices will be based. The Water Plan should clearly articulate and commit to the prices to be charged and the services to be delivered over the regulatory period. We assess the Water Plans against regulatory principles outlined in the Water Industry Regulatory Order (WIRO).

1.2 Why we are publishing this issues paper

The Commission and the water businesses have begun to prepare for the 2013 Water Price Review. A combination of reform proposals, public interest, innovation and the growing maturity of the water industry highlighted the need for us to single out the area of urban tariffs for early engagement.

In that context, we held an industry seminar on Urban Water Tariffs on 31 March to hear about key themes, issues and opportunities that are considered important for setting tariffs for the next regulatory period. We published a paper summarising the discussion and presentations from the seminar, which is on our website.

This Issues Paper is a further step in our engagement on urban water tariff issues. The paper discusses and assesses a number of the urban water tariff issues identified to date in the context of the 2013 Water Price Review. The paper explains our initial analysis on how we will consider these tariff issues in our review of pricing proposals in the Water Plans under the existing WIRO.

We intend to issue a Guidance Paper to the water businesses for the 2013 Water Price Review later in 2011. That paper will address both revenue and tariff issues related to the full range of services. It will also take into account any changes in the policy and regulatory environment including any amendments to the WIRO.

1.3 Structure of the paper

The first part of this paper (sections 1 to 3) relates to the legal and regulatory framework for the review and discusses our thinking on how we will apply that framework in looking at tariff issues for the 2013 Water Price Review.

The second part (sections 4 to 6) discusses the significant tariff issues we have identified for the 2013 Water Price Review:

- issues related to the form of price control (section 4)
- tariff structure and design issues (section 5)
- tariff issues related to customer choice (section 6).

1.4 What we need from you

Through this paper we are hoping to:

- provoke discussion and analysis on some of the tariff issues which need further work in the lead up to the 2013 Water Price Review
- prompt water businesses to incorporate our review needs into their work programmes to help ensure the 2013 Water Price Review is as efficient and administratively smooth as possible
- seek specific input and reaction to our early thinking on the criteria and factors we will consider during our review of proposed Water Plans.

We have included a number of specific questions in the paper. We welcome feedback on these questions and on any other issues raised in the paper.

Readers should feel free to draw to our attention any other issues that we have not included in the Issues Paper.

1.5 Responding to this Issues Paper

Stakeholders are invited to make written submissions on any issues raised in this paper or on any other issue considered to be relevant.

Interested parties can comment on the issues raised in this paper by sending a written submission or comments to the Commission by 26 August 2011.

We would prefer to receive them by email at water@esc.vic.gov.au

You can also send comments by mail, marked Submission to 2013 Water Price Review – Tariff Issues Paper, to:

Essential Services Commission
Level 2, 35 Spring Street
Melbourne VIC 3000

Please direct any queries about this Issues Paper to:

Jason Fitts, Project Manager, or
Andrew Chow, Director, Water and Local Government
on (03) 9651 0222

Consistent with good regulatory practice, our decisions reflect a combination of the legal and regulatory framework and the specific context for the review. In general, the regulatory framework does not change, however the technology, industry and economic context can change significantly.

In the case of the 2013 Water Price Review, we are aware of a number of new developments and changes in the context since the last reviews. This section sets out the main legal and regulatory underpinnings of our work and flags key changes.

2.1 Legal and regulatory framework for the review

In carrying out our role, we are guided by:

- the regulatory framework set out in the Essential Services Commission Act 2001 (ESC Act) and the Water Industry Act 1994
- the Regulatory Principles set out in the WIRO
- the National Water Initiative (NWI) pricing principles.

This legal and regulatory framework recognises that water businesses are monopoly providers and so could use market power to set prices that exceed efficient costs and/or set service standards that are not consistent with community expectations.

The ESC Act provides that our primary objective is to promote the long term interests of Victorian consumers having regard to the price, quality and reliability of essential services.

In seeking to achieve this primary objective, the Commission must have regard to:

- efficiency in the industry and incentives for long term investment
- the financial viability of regulated industries
- the degree of, and scope for, competition within the industry, including countervailing market power and information asymmetries
- the relevant health, safety, environmental and social legislation applying to the industry
- ensuring users and consumers (including low income or vulnerable customers) benefit from the gains from competition and efficiency, and
- consistency in regulation between states and on a national basis.

The Water Industry Act 1994 contains the following additional objectives that we must meet in regulating the water sector:

- wherever possible, ensure that the costs of regulation do not exceed the benefits
- regulatory decision making and regulatory processes have regard to any differences in the operating environments of regulated entities and
- regulatory decision-making has regard to the health, safety, environmental sustainability (including water conservation) and social obligations of regulated entities.

The procedural requirements include the need for businesses to consult with customers and relevant regulatory agencies before submitting the Water Plan to us for assessment.

The WIRO was made in 2003 and amended in October 2005. The Department of Sustainability and Environment is currently reviewing the WIRO.

The WIRO establishes a “propose-respond” model in which a water business proposes tariffs and prices to the regulator, and if that proposal meets the WIRO requirements, the regulator must approve it. This model does not allow the regulator to decide if there is a better proposal than the one the water business has made. The WIRO principles relevant to tariffs are:

- they provide appropriate signals about the costs of providing services and incentives for sustainable water use
- they take into account the interests of customers
- customers or potential customers are readily able to understand the prices charged or the manner in which they are to be calculated or determined
- relevant costs incurred in administering tariffs are efficient.

The National Water Initiative (NWI) pricing principles were endorsed by the Natural Resource Management Ministerial Council on 23 April 2010. The ESC Act requires that we have regard to these principles. Relevant NWI pricing principles are the principles for urban water tariffs, and principles for recycled water and stormwater reuse.

2.2 Specific context for the review

This section sets out the specific context that is relevant to consideration of tariffs, in particular significant changes that have occurred or are anticipated in the next Water Price Review period.

Customer interests

There have been significant changes in the environment affecting customer interests since the 2008 Water Price Review. Shortages of water resources over the 2013 Water Price Review period is considered much less likely, due to major investments made to increase water supply capacity, reductions in water consumption and recent high catchment inflows.

Water bills are increasing significantly due to major supply investments. Other utility bills are also increasing.

There is heightened awareness of the potential benefits of aligning customer and business interests, for example by price signalling which leads to behavioural change. But such strategies require sophisticated customer engagement.

Business operating environment

The improved water supply position and new supply investment mean that the operational focus of the 2013 Price Review Period will shift to consolidating and optimising the new supply sources and moving away from water restrictions.

The operating environment will also be characterised by more variable bulk supply costs and prices that may be uncertain. Regional water authorities have already experienced increased variability in bulk supply costs, and operating decisions for the desalination plant will introduce variability into Melbourne's bulk supply cost.

Long term planning

The key long term planning challenges for the urban water sector arise from meeting the needs of a rapidly growing population, pressures on the natural and built environments from population growth, and increased climate variability.

The concepts of integrated water cycle management, water sensitive cities and water sensitive urban design continue to be central to the water businesses' thinking to meet these future challenges.

2.3 Policy environment

Currently there is active policy discussion on urban water reform, with water and sewerage tariffs being a key area of focus.

The Living Victoria Ministerial Advisory Council (MAC) was established in late 2010 and was charged with advising the Government on how best to achieve the objectives of its policy *Living Melbourne, Living Victoria in Melbourne*. A key objective of this policy is to use stormwater, rainwater and recycled water to provide Victoria's next major water augmentation. The MAC's final recommendations will be available later this year.

The Government's MAC is currently investigating the feasibility of setting a minimum percentage of consumers' water bills to be volumetric charges.

The National Water Commission¹ (NWC) and the Productivity Commission² have recently released reports on urban water reform. The NWC in July 2008 also published a report on approaches to urban water pricing.³

¹ National Water Commission, *Urban water in Australia: future directions*, April 2011.

² Productivity Commission, *Australia's Urban Water Sector Draft Report*, April 2011.

³ Frontier Economics, *Approaches to urban water pricing*, Waterlines report No 7, July 2008.

Common themes emerging from these reports that are relevant to tariffs are:

- the potential for an enhanced role for decentralised decision making on investments, by water retailers and third parties
- the importance of the level of the volumetric tariff in signalling the opportunity cost of water supply
- the potential benefits of charges more clearly reflecting location or temporal cost differences
- facilitating greater customer choice.

The NWC and Productivity Commission both advocated adoption of two part tariffs rather than Inclining Block Tariffs (IBT) for water pricing.

Enhanced role for decentralised investment decisions

The water sector (including the Commission, water businesses and government) needs to take account of the trend to decentralised investment decisions by the water retailers and by third parties such as developers and local councils. As noted there is a widespread view that much future new supply will be based on integrated water cycle management, water sensitive cities and water sensitive urban design concepts. The extent and nature of adoption of these concepts will be a local and operational issue for each water business, as well as a broader policy issue for Government.

The MAC has recommended the introduction of a private sector licensing regime and third party access regime. In 2009, we conducted an inquiry into the development of a state-based access regime for water and sewerage infrastructure services. The government has not made any policy decisions on third party access.

The importance of the level of the volumetric tariff

A central challenge for the 2013 Water Price Review will be setting volumetric bulk and retail tariffs at the right level. There is a risk that overly high variable tariff levels could incentivise the water retailers and other third parties to invest in decentralised solutions which are expensive for the community from a longer term societal perspective. Conversely, variable tariff levels that are too low may provide inadequate incentives for what would be efficient investment by third parties.

Central to setting price levels correctly will be changes to the valuation of water resources within the next Water Price Review period. The MAC has recommended that further work be undertaken to investigate options for including the value of water resources into bulk water prices for Melbourne. This could be achieved through a variety of approaches, for example an administered resource value in prices.

Potential benefits of charges more clearly reflecting location cost differences

The water sector could consider the benefits of charges more clearly reflecting location or temporal cost differences. The MAC notes that a keystone of efficient investment choices and service delivery options is transparent, reliable and timely information, including system operation constraints and network capacity. One means of signalling information to investors and consumers on operational constraints and on network capacity is through more finely differentiated charges.

Facilitating greater customer choice

The MAC and other agencies have suggested that there should be more opportunities for customers to exercise choice, and some water retailers have signalled they plan to include proposals for customer choice in their Water Plans. The purpose of customer choice would be to facilitate customers expressing their preferences regarding aspects of the service they receive such as security of supply, water restrictions and price volatility.

Commentators have highlighted how initiatives in customer choice would have significant flow on implications for current industry practice including improving outcomes for customers, more efficient allocation of risk between business and customers, new risk management needs and changed business drivers:

In offering a range of products, retailers would no longer simply pass through costs to consumers. Rather they would need to match the risk characteristics of their customer portfolio with their supply portfolio. In order to do so they might need to build expertise in this area.⁴

[Customer choice] represents a major change in the current industry paradigm from one of water authorities as stewards of the resource supplying a uniform product to users as permitted by water availability to one of focusing more on meeting water users' needs as customers.⁵

Customer choice raises a number of new policy questions – such as whether offering tariffs with different security levels is consistent with the restrictions policy, as well as the merits of locational pricing compared with postage stamp pricing.

⁴ Productivity Commission, *Australia's Urban Water Sector draft report*, April 2011, p. 191.

⁵ Frontier Economics, *Approaches to Urban Water Pricing, Waterlines Occasional Paper No 7*, commissioned by the National Water Commission, July 2008, p. 52.

3 | PROPOSED PRICING PRINCIPLES

In making decisions on Water Plans, we must consider principles in the WIRO and the ESC Act, taking account of the relevant context.

We thought it would help to set out our thinking on how these various principles will need to be interpreted in relation to pricing proposals and the 2013 Water Price Review.

This section proposes pricing principles that we plan to use to guide our analysis and decisions on the water businesses' proposed prices and/or the proposed approaches to calculating prices. We are setting out our views now to facilitate discussion and to provide a framework for analysis in the remainder of this paper.

3.1 Where do our proposed principles come from?

Our proposed pricing principles are derived from the requirements in the WIRO and the Essential Services Commission Act and, flowing from the requirements of the Act, the principles for urban water tariffs set out in the National Water Initiative Pricing Principles⁶ endorsed by the Natural Resource Management Ministerial Council.

In addition, in translating these requirements into proposed pricing principles for the 2013 Water Price Review, we have been mindful of the work of the Living Victoria Ministerial Advisory Council, and recent discussion on pricing set out in the National Water Commission and Productivity Commission reports on urban water reform, and the various presentations made at the recent Urban Tariffs seminar.⁷

⁶ National Water Initiative pricing principles, Steering Group on Water Charges, 2010. The Natural Resource Management Ministerial Council endorsed the National Water Initiative (NWI) pricing principles on 23 April 2010.

⁷ Essential Services Commission, "*Urban Water Tariffs Summary Paper*" April 2011.

3.2 Economically sustainable revenue principle

Proposed Principle

Tariff structures, levels and the form of price control should ensure a sustainable revenue stream over the Water Price Review period.

Rationale for proposed principle

The WIRO requires that we must be satisfied that prices

provide for a sustainable revenue stream over the term of the Water Plan which does not reflect monopoly rents or inefficient expenditure.

What does the proposed principle mean for proposed prices and our review?

Once a water business has determined the forecast expenditures and revenue requirement and understood material risks and uncertainties, it must then translate this information into actual prices and/or a method for calculating prices over the relevant Water Price Review period.

We will focus on the WIRO requirement for sustainable revenues in assessing forecast expenditures and demand. However, tariff structures, levels and the form of price control can affect revenue sustainability and adequacy, particularly where costs are variable and/or uncertain.

For the 2013 Water Price Review, we expect that the economically sustainable revenue principle will be a key factor in considering the form of price control, given the materiality of variable bulk water costs and cost forecasting challenges.

3.3 Subsidy free pricing & inefficient bypass

Proposed Principle

For each tariff class (that is, different tariff type), the revenue expected to be recovered should lie on or between an upper bound representing the stand alone cost of serving the customers in that class and a lower bound representing the avoidable cost of not serving those customers.

Rationale for proposed principle

The WIRO Regulatory Principles require that we must be satisfied that proposed prices should provide incentives for the sustainable use of Victoria's water resources by providing appropriate signals to water users about:

- (A) the costs of providing services, including costs associated with future supplies and periods of peak demand and/or restricted supply and
- (B) choices regarding alternative supplies for different purposes.

These regulatory principles have implications for the revenue that is expected to be recovered from a tariff class and for the structure of tariffs. The subsidy free pricing principle addresses revenue implications.

It is common in utility regulation to establish explicit pricing principles to set upper and lower bounds of prices. The purpose of such a principle is to ensure that all prices are subsidy free (that is, there are no cross subsidies between customer classes or between different tariffs offered within a customer class) and to avoid incentives for the inefficient bypass of regulated infrastructure. This principle is also relevant to costs allocated and the revenue expected to be collected from various services (for example recycled water versus potable water services). See Box 3.1.

Greater diversity in retail tariffs and more decentralised investment decision-making could also lead to the potential for local water users building their own infrastructure to store and transport water. This would occur if a retail or bulk water tariff set for a particular location were inefficiently high.

Box 3.1 Upper and lower bound pricing

The National Water Initiative Urban Pricing Principles set a principle for upper and lower bound prices as follows:

Unattributable joint costs should be allocated such that total charges to a customer must not exceed stand-alone cost or be less than avoidable cost where it is practicable to do so.⁸

The Commission has previously established a principle for upper and lower bound prices for regulation electricity distribution tariffs and this principle has been followed in the National Electricity Rules (NER).⁹

For each tariff class, the revenue expected to be recovered should lie on or between:

- (1) an upper bound representing the stand alone cost of serving the customers who belong to that class and
- (2) a lower bound representing the avoidable cost of not serving those customers

What does the proposed principle mean for proposed prices and our review?

The potential for introducing greater customer choice could potentially result in more diversity in tariffs, including more customer classes, and more diversity in standards of service and more tariff offerings. In addition, government policy is to encourage more decentralised investment decisions.

A potential implication of greater tariff diversity is more tariff classes and “de-averaging” of tariffs (for example, there may be increased diversity in average revenue for different tariff class). This raises the issue of whether cross subsidies could emerge within and between customer classes.

⁸ National Water Initiative pricing principles, Steering Group on Water Charges, 2010 Principles for urban water tariffs, Principle 4: Setting the service availability charge

⁹ National Electricity Rules, S.6.18.5.

3.4 Tariff structure principles

Proposed Principles

Tariff structures should be simple, understandable and cost reflective.

Bulk Water Charges Structure

A two part charge comprising a fixed charge and a volumetric component is preferred to recover a bulk supplier's revenue requirement from its customers for each bulk water service.

Retailer Water Tariffs Structure

A two part tariff comprising a fixed charge and a volumetric component is preferred to recover a water business's revenue requirement from each tariff class.

If a business proposes an alternative tariff structure it should set out the objectives of this tariff structure and provide supporting analysis showing how these objectives are being met.

Sewerage Charges

The tariff structure should reflect the cost structure - and may comprise a one or two part tariff (all fixed, all volumetric or a fixed charge and a volumetric component).

Trade Waste Charges

The tariff structure should be load-based where measurement is feasible and where the benefits outweigh the costs.

Rationale for proposed principles

The tariff structure principles also address the WIRO Regulatory Principles for proposed prices to provide appropriate signals to water users. In addition, the proposed tariff structure principles address WIRO requirements in relation to the interests of customers and the general regulatory principle about simplicity and understandability.

What do the proposed principles mean for proposed prices and our review?

Tradewaste

In relation to tradewaste charges, load-based pricing of tradewaste has become wide-spread across Victoria. Load-based pricing of tradewaste reflects the cost drivers of treatment, disposal and management of tradewaste. It signals to customers the costs of discharging to the wastewater system compared with waste minimisation and on-site treatment.

Where the costs of measuring load factors do not outweigh the benefits, there are efficiency gains associated with moving to more load-based pricing of tradewaste. This is likely to be most relevant for large industrial users, where the benefits of sending a price signal are likely to be greatest.

The Productivity Commission states that there is likely to be scope for efficiency gains in load-based pricing of tradewaste for large industrial users where the benefits of doing so are most likely to outweigh the costs of installing metering technology.¹⁰ Our observation is that this is the direction that businesses are moving but for small trade waste customers the cost of measurement would appear to outweigh the benefits of load-based pricing.

Inclining Block Tariffs

In relation to retail water, we note that there are views that an Inclining Block Tariff (IBT) is the best way of promoting water conservation whilst also taking account of the interests of low income and vulnerable customers. However, there is considerable evidence that questions whether an IBT is as effective in protecting the interests of low income and vulnerable customers as has been claimed.¹¹ We will look for evidence that a water business has an adequate transition strategy for shifting from IBTs and encourage businesses to undertake planning in this regard if changes are anticipated.

If a water retailer proposes not to adopt a two part tariff, we will assess the objectives of the alternative tariff structure and review supporting analysis. We will need to be satisfied of the robustness of the analysis against the WIRO principles.

3.5 Volumetric charge principle

Proposed Principle

The volumetric charge should have regard to the relevant marginal costs.

Rationale for proposed principle

A number of developments suggest there is merit in us establishing an explicit pricing principle requiring that setting of volumetric parameters should have regard to marginal costs.

We have previously noted the economic efficiency benefits of setting volumetric tariffs having regard to long run marginal cost.¹² Setting prices this way provides appropriate signals about the costs associated with future supplies or disposal.

The Productivity Commission, the National Water Commission and several presenters at our 31 March Tariff Seminar set out the economic case for ensuring that the volumetric element of retail tariffs should be set based on marginal cost.

¹⁰ Productivity Commission “*Australia’s Urban Water Sector draft report*” April 2011 Page 162

¹¹ Sibley. H. *Urban water pricing*, Agenda, vol. 13, no. 1, 2006, pp. 17–30.

¹² See Water Tariff Structures Review, Final Report December 2007, Appendix C Economic Pricing Principles.

Appropriate marginal cost concepts

Future possible developments suggest there may be merit in further consideration of marginal cost concepts that should be adopted as part of a pricing principle.

Accepted practice in the urban water industry has been to adopt a long run marginal cost concept for setting bulk water volumetric parameters, although some regional businesses have referenced short term marginal cost.

There may be merit in more flexible or scarcity pricing. The National Water Commission and the Productivity Commission have discussed the merits of flexible or scarcity pricing. The Ministerial Advisory Council has noted that more work needs to be done on options for including the value of water resources into prices.

We believe that in addition to recognising current pricing concepts (long run marginal cost), investigations should also consider alternative marginal cost concepts such as shadow pricing.

What does the proposed principle mean for proposed prices and our review?

The level of the volumetric tariff will be a key issue in the 2013 Water Price Review and the means chosen to determine the tariff will therefore be an important determinant of the final impact of prices on consumers. The level of prices will also provide incentives for the use and non-use (conservation) of water which will have long term impacts on investment in the water sector.

3.6 Customer focus principles

Proposed Principles

Retail tariff and service offerings, and the form of price control, should have regard to:

- ***the ability of customers to understand the tariff and service offering and respond to price signals***
- ***customers preferences and needs in relation to service standards or new services***
- ***the costs of implementing the tariff offering, including administration and marketing costs***
- ***price path stability.***

Rationale for proposed principles

The WIRO Regulatory Principles require us to be satisfied that prices or the method for setting prices “takes into account the interests of customers of the regulated entity including low income and vulnerable customers”. They also require that in approving the Water Plans we are satisfied that customers are able to readily understand the prices for prescribed services, or the manner in which such prices are to be calculated or otherwise determined.

A key consideration when approving price and tariff structures is avoiding price shocks to customers. To realise this, price transitions need to be achieved both within and between regulatory periods.

What do the proposed principles mean for proposed prices and our review?

Issues that would need to be considered by water businesses moving away from a two-part retail water tariff structure include:

- How the change will affect various customer segments, particularly low income or vulnerable customers
- Identifying options for the water business to manage any material impacts, including transitional pricing arrangements, and consulting with government on the application of concession policies or similar programs.

There is an argument that an inclining block tariff (or a two part tariff) with a volumetric rate that is above marginal cost is desirable on water conservation grounds. In considering such a proposal against the proposed principles, we would need to assess supporting analysis about the objectives, assumed customer response and other impacts.

When dealing with likely responses of customers to tariffs, their price elasticity of demand becomes relevant. Any discussion of tariffs should recognise different customer types, the practical opportunities and impediments to water users being aware of price changes and then having scope to change demand to respond to the price signal. Where elasticity is low it suggests that the response will be limited.

The potential for proposed Water Plans to introduce customer choice (see Chapter 6) raises new challenges for the water businesses, and for customers who will need to understand the tariff structures and services offered to exercise choice.

We suggest that any proposal in the Water Plans to introduce customer choice should be accompanied by information on how the water business intends to facilitate customer understanding, including how to monitor and manage any risks to customer understanding.

As the regulatory model established by the WIRO is a propose-respond model where the water business decides on the form of its pricing and tariff submission, and there is no requirement for standardisation across the state, the water businesses could propose different approaches to offering customer choice. This could raise equity concerns, since similar customers across the state could have different opportunities depending on where they were located, notwithstanding the similar underlying supply opportunities.

Experience in other industries suggests that, at least in its early stages, customer choice does not lend itself to standardisation or uniformity. We think that the innovation required to develop customer choice does not lend itself to a uniform approach across all water businesses. However, we consider that large differences in the opportunities available to similar customers (but differentiated by their retailer) should be avoided in the early stages. We are interested in any research available which investigates customer acceptance of possible tariff choices.

If a specific example of tariff innovation in one business proves to be successful, the regulatory regime allows for other businesses to adopt that innovation during a regulatory period, provided it is consistent with a tariff strategy outlined in their water plans.

3.7 Proposed principles

Our proposed pricing principles are set out in Table 3.1.

Table 3.1 Proposed Pricing Principles

| <i>Area</i> | <i>Principle</i> |
|---|--|
| Sustainable revenue | Tariff structures, levels and the form of price control should ensure an economically sustainable revenue stream over the Water Price Review period. |
| Subsidy free pricing & inefficient bypass | For each tariff class, the revenue expected to be recovered should lie on or between an upper bound representing the stand alone cost of serving the customers in that class and a lower bound representing the avoidable cost of not serving those customers. |
| Tariff structures | <p>Tariff structures should be simple, understandable and cost reflective.</p> <p><u>Bulk Water Charges Structure</u> - A two part charge comprising a fixed charge and a volumetric component is preferred to recover a bulk supplier's revenue requirement from its customers for each bulk water service.</p> <p><u>Retail Water Tariffs Structure</u> - A two part tariff comprising a fixed charge and a volumetric component is preferred to recover a water business's revenue requirement from each tariff class.</p> <p>If a business proposes an alternative tariff structure it should set out the objectives of this tariff structure and provide supporting analysis showing how these objectives would be better met by the proposed tariff structure.</p> <p><u>Sewerage Charges</u> - The tariff structure should reflect the cost structure - and may comprise a one or two part tariff (all fixed, all volumetric or a fixed charge and a volumetric component).</p> <p><u>Tradewaste</u> - Tradewaste charges should be load-based where measurement is feasible and where the benefits outweigh the costs.</p> |
| Determining fixed charges | Fixed charges should be calculated to recover the difference between the total revenue requirement for a tariff class and the revenue recovered through volumetric charges. |
| Determining volumetric charges | The volumetric charge should have regard to the long run or short run marginal costs, where appropriate. |
| Customer focus & equity | <p>Retail tariff and service offerings, and the form of price control, should have regard to</p> <ul style="list-style-type: none"> • the ability of customers to understand the tariff and service offering and respond to price signals • customers preferences and needs in relation to service standards or new services • the costs of implementing the tariff offering, including administration and marketing costs • price path stability. |

The following questions may assist to focus responses on the above issues.

Questions **Proposed pricing principles**

Do the proposed principles adequately address the WIRO and other relevant requirements in relation to pricing matters?

What amendments – changes or additions – are needed to ensure the principles are clear, useful and applicable in the 2013 Water Price Review?

Are there any other matters that we will need to consider in applying these proposed principles?

4 | FORM OF PRICE CONTROL

The form of price control proposed by the water businesses is an important tool for ensuring that a water business will have a sustainable revenue stream over the 2013 Water Price Review period.

4.1 How the WIRO supports fit-for-purpose price controls

The WIRO provides us with flexibility to approve (or specify) individual prices or the manner in which prices are calculated or determined, for example pricing formulae, caps or pricing principles. The forms of price control can include processes for approving individual prices, pricing principles and explicit price controls.

Several forms of price control are used in Victoria, with individual price caps being the most common. Water businesses using price caps may apply to move to a tariff basket approach during the regulatory period in which price increases are limited by a weighted average of the prices of a basket of services. Revenue caps have been adopted by the rural businesses, and hybrid forms of price controls combining revenue caps and price caps or price caps and tariff baskets have been adopted by some businesses. There are also businesses which have set out a process they will follow to establish prices for some specialised services.

4.2 Forms of price control

The following are among the different forms of price control that may be adopted:

- **A weighted average price cap (or price basket)** — a weighted average price cap is applied to a basket of services, and the businesses submit prices each year that must conform to a pre-determined price path escalated by CPI less a productivity factor (CPI-X). In deriving the weighted average price, the weights are usually the actual quantities of the service sold.
- **Weighted average revenue (or revenue yield)** — a cap is placed on the average revenue per unit of service supplied that the business is allowed to earn in any period. This average is calculated by dividing total revenue by total output, which requires a standard unit of output, such as megalitres.
- **Individual price caps** — prices are approved by the regulator at the start of the regulatory period and escalated annually by applying the CPI-X formula to each individual price component. There is no rebalancing between prices within the regulatory period.
- **Revenue cap** — the maximum revenue that can be earned is set at the outset of a regulatory period. This provides a business with guaranteed revenue regardless of sales volume.
- **Any combination of the above** — a hybrid approach can be used.

Issues

We have identified a number of issues that retail water businesses may need to consider in proposing the form of price control for the 2013 Water Price Review period.

It will be important for water businesses to examine whether there has been an increase in forecasting uncertainty with regard to water supply and demand and its implications for future demand. Options for dealing with increased uncertainty could include price control mechanisms or tariff design targeted at managing and allocating risk. We would expect that some consideration of this will take place in the context of considering the implications of climate change. We see stability, that is the avoidance of price shocks, as an important issue between and within control periods. To achieve price stability, businesses are likely to need to formulate plans that extend beyond the time horizons of their regulatory control periods. This broader planning should assist in formulating the Water Plans for the purposes of the Price Reviews and should improve investment decision making given the large and “lumpy” nature, and long life, of many water industry assets.

We would welcome broader consideration of the question of risk allocation between water customers and the owner of the water businesses, particularly given that assumptions on this underlie much of the discussion regarding the form of control and how uncertainty is managed within it.

The implications of managing customer impacts from any significant tariff changes will need to be considered. A common mechanism to manage tariff impacts used in other regulated industries is the adoption of side constraints. These typically set a maximum annual rate of change in any individual tariff. This approach can provide clarity as to how any equity concerns from tariff changes are to be managed and how to minimise regulatory costs. We will consider favourably those proposals that seek to maintain price stability, that is, avoid price shocks and to maintain a clear transition strategy. In this context we consider that side constraints have merit.

The implications of proposals (if any) for significant tariff customer choice during the 2013 Water Price Review period will need to be considered. This includes, for example, the introduction of new tariffs, or the withdrawal of tariffs as part of any tariff strategy to provide customer choice. Consideration may be required of a more flexible form of explicit price control such as a weighted average tariff basket approach.

The Commission has identified that it considers that the most appropriate form of price control is one which meets the following criteria:

- provides incentives that encourage the alignment of price structures and underlying costs
- manages and allocates the risks of demand and supply uncertainty in an efficient way and
- minimises the complexity, cost and intrusiveness of its administration.

Questions **Form of Price Control**

What tariff innovations could be proposed for the 2013 Water Price Review period?

What are the implications for the form of price control?

How will equity implications of tariff changes be managed?

Are there any significant cost forecasting uncertainties for water retailers, such as demand or variable bulk supply costs? If so, what are the appropriate mechanisms for managing these risks?

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5 | TARIFF STRUCTURE AND DESIGN ISSUES

In our 2013 Water Price Review, we will need to consider a number of tariff structure and design issues associated with bulk and retail water tariffs, sewerage pricing and charges for waterways and drainage. While some of the issues are new, in other cases the questions have been raised before, but the context has changed, or new information and insights mean that our analysis has evolved.

The following sections discuss issues we have identified. It is likely that additional issues will emerge through the consultation and review programme.

We have purposely chosen to discuss issues in line with the industry supply chain. Therefore water tariffs are discussed starting with bulk supply tariffs (for the Melbourne system) and moving through to retail water tariffs (Melbourne retailers and regional urban authorities). We then consider sewerage charges, recycled water charges and finally waterways and drainage.

With all of these tariffs structure and design issues, an important feature of any proposed reform will be the accompanying transition strategy that anticipates and deals with customer impacts, and any indirect effects of change. We will expect to see evidence of substantial customer consultation and consideration of transition strategies in water businesses' tariff proposals.

5.1 Melbourne Water's bulk water tariff

While all water retailers incur costs for bulk water, issues associated with economic regulation of bulk water tariffs are largely confined to Melbourne Water. The 2013 Water Price Review will need to consider bulk water resource pricing (headworks pricing for the existing supplies and how this is affected by desalination costs) and bulk transfer costs.

Bulk water resource pricing

Melbourne Water's current bulk water pricing structure has historically recovered the mostly fixed costs of headworks through a two-part charge. An allowance for the estimated cost of the desalination plant was included in Melbourne Water's charges, but before the actual cost was known.

With the exception of Gippsland Water (which takes a small volume of raw water), all the water retailers are charged the same price for the headworks on the basis that the businesses benefit equally from security of supply provided by the headworks system. Melbourne Water currently determines the volumetric component of the headworks price based on estimates of long run marginal cost of supply to the water retailers.

The tariff structure and approach to calculating the volumetric rate in relation to existing headwater infrastructure assets seem consistent with our proposed pricing principles.

For the 2013 Water Price Review, the actual costs of the Wonthaggi desalination plant will need to be included in Melbourne Water's bulk water charges. We understand that the plant will initially operate to enable commissioning and to increase storage levels to 65 per cent. Once the target storage level is reached, decisions will be made on the future operating regime. The charges associated with the desalinated water resource will need to be reflected in bulk water charges and take account of the desalination plant's variable and uncertain cost structure.

The headworks assets and the desalination plant have different fixed and variable cost structures and different operating roles. This raises the question as to whether it would be a good idea for Melbourne Water to establish separate charges for the headworks and the desalination plant to make bulk water resource charges more transparent and cost reflective. Alternatively these charges could be amalgamated into a single bulk water resource charge.

The focus on investment in new water resources raises the question about whether it would be a good idea to apply different volumetric charges for bulk resource costs according to the bulk supply point for a retailer.

The single bulk water price (other than for Gippsland) implies there will not be future material constraints in the bulk transfer system, as demand grows, and investment patterns and system flows change, and that it will always be efficient for Melbourne Water to invest to remove any emerging system constraints. If however projections of an efficient pattern of future investment suggest that material constraints could emerge, then it may be appropriate to set different long run marginal costs for bulk resources for different locations around the Melbourne water supply system.

In raising this question, we note that the potential benefits of locational signals must be balanced with the flow-on customer impact costs.

Charges for bulk water transfer

Melbourne Water currently recovers its bulk transfer costs through a two-part tariff. A different volumetric transfer charge is calculated for each of the three Melbourne retailers and Western Water. This is an averaged long run marginal cost for bulk transfer services provided to each water retailer's supply area. Charges for headworks and transfer are set out in Tables 5.1 and 5.2 respectively.

Table 5.1 Headworks charges to Victorian water retailers from Melbourne Water

2011-12

| <i>Water Business</i> | <i>Storage operator and bulk water</i> | | |
|-----------------------|--|--------------------------------|-----------------|
| | <i>Service Charges Headworks</i> | <i>Usage Charges Headworks</i> | |
| | <i>(per month)</i> | <i>(per ML)</i> | <i>(per ML)</i> |
| City West Water | \$2,711,356.03 | | \$736.43 |
| South East Water | \$3,686,658.90 | | \$736.43 |
| Yarra Valley Water | \$4,111,715.11 | | \$736.43 |
| Western Water | \$267,336.99 | | \$736.43 |
| Gippsland Water | \$139.24 | | \$139.24 |
| Barwon Water | | \$155.61 | \$736.43 |
| South Gippsland Water | | \$155.61 | \$736.43 |
| Westernport Water | | \$155.61 | \$736.43 |

Table 5.2 Transfer charges to Victorian water retailers from Melbourne Water

2011-12

| <i>Water Business</i> | <i>Storage operator and bulk water</i> | | |
|-----------------------|--|--------------------------------|-----------------|
| | <i>Service Charges Transfers</i> | <i>Usage Charges Transfers</i> | |
| | <i>(per month)</i> | <i>(per ML)</i> | <i>(per ML)</i> |
| City West Water | \$739,500.45 | | \$212.90 |
| South East Water | \$1,375,583.84 | | \$180.89 |
| Yarra Valley Water | \$1,961,383.52 | | \$144.06 |
| Western Water | \$134,209.61 | | \$149.31 |
| Gippsland Water | \$980.66 | | |
| Barwon Water | | \$60.36 | \$179.29 |

We note that the Productivity Commission considers that all transmission costs should be recovered through a volumetric price and not a two-part tariff because this better reflects the underlying costs.¹³ This prompts us to raise the question of the appropriateness of Melbourne Water's bulk transfer charges.

Similar to bulk water, the question of the type of locational signals arises for bulk transfer charges. Decisions about the most efficient location for local water supply projects may be improved if the bulk transfer charge signalled locational cost more accurately. For example, the bulk transfer prices could be disaggregated to reflect long run marginal cost for augmenting the transfer system at each connection point between Melbourne Water's bulk transfer system and the water retailers' systems.

We note that the most benefits from better bulk transfer price signals are likely to arise in greenfield areas, and in significant redevelopment areas, because of the point-in-time decision about investing in significant long-life assets or alternative solutions. A possible option could be more accurate bulk water transfer charges (defined on an appropriate locational and/or seasonal basis) to apply to greenfield (and/or development areas) only.

Questions **Bulk water tariffs and transfer charges**

Can the current headworks charging structure be improved?

How will the structure of bulk water tariffs be affected by the desalination plant water resource?

Are there net benefits in introducing locational signals into bulk water charges?

Should the bulk transfer price be a two-part price or is there a case for alternatives such as a pure volumetric charge?

What are the benefits and implications of more differentiated bulk transfer charges and what options for them may be appropriate?

Should Melbourne Water establish separate charges for the headwork and the desalination plant or should they remain a single bulk water resource charge?

5.2 Retail water tariff

The retail tariffs charged by Melbourne water retailers and regional urban water authorities need to recover the prices and costs of each element along the water supply chain. These include bulk water costs, transfer costs, distribution costs, retail costs and a return inbuilt in all of the assets. There is a mixture of two-part and inclining block tariff structures adopted across the water businesses.

For Melbourne water retailers, bulk water costs reflect a regulated charge from Melbourne Water rather than a cost based on the market value of the resource. However, some regional urban water authorities are participating in the rural water market, so their bulk water cost reflects market variability. We will need to understand the implications of market-based bulk water costs for retail tariffs in the 2013 Water Price Review. The retailers and their charges are set out in Table 5.3.

¹³ Productivity Commission "Australia's Urban Water Sector draft report" April 2011 Page 167

Table 5.3 Victorian water retail fixed and volumetric charges 2011-12

| <i>Water company</i> | <i>Fixed</i> | | <i>Volumetric</i> | <i>Notes</i> |
|-------------------------|--------------|---|--|---|
| City West Water | \$170.41 | 0–160 kL/year: 160–320 kL/year: 320+ kL/year: | \$1.7854 /L \$2.0950 /L \$3.0952 /L | |
| South East Water | \$82.46 | 0–160 kL/year: 160–320 kL/year: 320+ kL/year: | \$1.7511 /L \$2.1266 /L \$3.4401 /L | |
| Yarra Valley Water | \$120.26 | 0–160 kL/year: 160–320 kL/year: 320+ kL/year: | \$1.7756 /L \$2.0832 /L \$3.0778 /L | |
| Barwon Water | \$150.63 | | \$1.9817 /L | |
| Central Highlands Water | \$225.46 | 0–150 kL/year: 150–300 kL/year: 300+ kL/year: | \$1.5882 /L \$1.9058 /L \$2.3824 /L | Locational pricing used, figures based on largest town/city |
| Coliban Water | \$96.32 | 0–200 kL/year: 200–400 kL/year : 400+ kL/year: | \$1.9192 /L \$2.3215 /L \$3.8081 /L | Locational pricing used, figures based on largest town/city |
| East Gippsland Water | \$214.01 | | \$1.5044 /L | Locational pricing used, figures based on largest town/city |
| Gippsland Water | \$156.13 | | 1.8056 /L | |
| Goulburn Valley Water | \$148.88 | | \$0.9562 /L | |
| GWMWater | \$388.59 | | \$1.4480 /L | Locational pricing used, figures based on largest town/city |
| Lower Murray Water | \$175.75 | Summer 0–100 kL/quarter: 100–200 kL/quarter: 200+ kL/quarter: Winter 0–50 kL/quarter: 50–100 kL/quarter: 100+ kL/quarter | \$0.3852 /L \$0.7008 /L \$0.9006 /L \$0.3852 /L \$0.7008 /L \$0.9006 /L | |
| North East Water | \$183.67 | | \$2.1987 /L | Locational pricing used, figures based on largest town/city |
| South Gippsland Water | \$346.13 | | \$1.5242 /L | Locational pricing used, figures based on largest town/city |
| Wannon Water | \$142.18 | 0–160 kL/year: 160–300 kL/year: 300+ kL/year: | \$1.5948 /L \$1.9146 /L \$2.8720 /L | Locational pricing used, figures based on largest town/city |
| Western Water | \$215.26 | 0–160 kL/year: 160–320 kL/year: 320+ kL/year: | \$1.3838 /L \$1.8358 /L \$3.6717 /L | |
| Westernport Water | \$351.14 | 0–100 kL/year: 100–324 kL/year: 324+ kL/year: | \$1.4326 /L \$1.7163 /L \$2.2104 /L | |

We will need to assess how retail tariff structures proposed by the water businesses align with the pricing principles proposed in this paper.

We will also need to assess the merits of any tariff innovations proposed by water businesses, particularly those which alter the allocation of risk between retailers and customers, for example by incorporating some form of scarcity pricing or resource value.

Implications of market based and variable bulk water costs

Some regional urban water authorities are already participating in the rural water market. For these regional water authorities, we will need to consider the challenges of forecasting the cost of bulk water purchased in the market and the implications, in some cases, of an increased proportion of variable costs that are uncertain. While we will focus on costs and risks when looking at the revenue requirement underpinning proposed prices, the way in which prices are allowed to vary over time directly affects the risk to which the water business is exposed and the cost of managing that risk. As such, the revenue requirement and tariff strategies are inextricably linked.

Options for managing uncertain variable bulk water costs at the retail level include:

- Pass through approach - passing variations in costs through to retail tariffs as they are incurred
- Smoothing approach -- smoothing bulk price/cost variability, for example over the regulatory period.

A pass through approach:

- will tend to have a somewhat similar effect to scarcity tariffs - variable costs should tend to be higher in times of relative water scarcity
- is easier for the retail business to manage from a cash flow and regulatory accounting perspective
- but produces a more variable retail price for customers.

If the water retailers propose to establish some type of smoothing arrangement, then we consider that, over time, customers should only pay for actual efficient variable bulk prices/costs incurred by the water businesses. Customers should not pay for any unspent allowances established as part of a smoothing arrangement (this implies a need to quarantine the revenue raised to cover the variable costs of desalination from other payments made to the retailers and Melbourne Water).

Different tariffs reflecting these options could be introduced as part of a customer choice strategy.

In regard to Melbourne, we note that the Living Victoria Ministerial Advisory Council roadmap states “consistent with an effective market, the allocation of water to users is optimal when the value of the water to a customer is reflected in the prices they pay.” Although the MAC recommends that further work should be undertaken to investigate options for including the value of water resources into bulk water prices for Melbourne, we are not aware of decisions to effect this change during the 2013 Price Review period.

Should retail tariffs better signal differences in distribution costs?

Currently the water retailers and most regional water businesses recover their distribution system costs on a postage stamp basis; that is, retail tariffs do not reflect any differences in costs of the distribution system by time or by location.

Some regional water businesses set water charges that vary by location. These differences reflect differences in the cost structures of water supply, transport and treatment across the businesses. However, the trend has been toward postage stamp pricing as systems have become more interconnected due to supply augmentations. Some businesses have also identified equity and administrative simplicity as reasons for moving to a uniform water price.

As for bulk water resource and transfer charges, arguably differentiation may promote more efficient investment or consumption decisions.

Steps to promote efficient decisions on Integrated Water Cycle Management by other parties, such as developers, raises the issue as to whether it is important that any material differences in distribution system costs not already reflected in developer charges should be reflected in retail tariffs.

Structure of proposed retail water tariffs

As part of the 2013 Water Price Review, we will pay close attention to the structure of proposed water tariffs. We note that in the past, tariff structures have been designed to achieve a range of objectives including managing customer impacts and water conservation.

Retail water charges across Victoria are structured as a two-part tariff comprised of a fixed and variable component, with the majority of businesses adopting an Inclining Block Tariff for residential customers. All businesses adopt a two-part tariff for non-residential customers and most regional businesses vary the fixed charge in relation to meter size.

As reflected in our proposed pricing principles, we prefer a two-part retail water tariff because of its efficiency properties, simplicity, and consistency with the National Water Initiatives pricing principles. We consider that a two-part tariff is consistent with the interests of low income and vulnerable customers, in part because it avoids some perverse outcomes associated with structures which are aimed at managing customer impacts. Although the WIRO does not require it, this approach would also ensure consistency in retail water tariff structures across the state.

We also note our general philosophy is that water businesses are best placed to design tariffs and tariff structures which meet customer needs, and manage risk and business outcomes. As such, we note that proposed Water Plans may include alternative tariff structures as part of a business's tariff strategy. We will look closely at the objectives and analysis supporting alternative structures, particularly where customers have no choice. We will need to be satisfied of the robustness of this analysis against the pricing principles.

Balance between volumetric and fixed charges

We noted earlier the importance of setting variable bulk and retail tariff levels correctly. With an increased role for decentralised decision making, there is a risk that setting volumetric tariff levels incorrectly will result in inefficient investment signals with adverse affects on water costs in the long term.

Approach to innovations in retail tariffs

We expect that there will be a substantial focus on tariff innovation in the 2013 and future Water Price Reviews. Innovation may occur as part of customer choice strategies or as part of wider reforms to introduce resource value signals. Experience in other sectors has shown that there are benefits to the introduction of choice in retail tariffs, though this has been done in the context of the development of a competitive market.

For the 2013 Water Price Review, we wish to encourage water businesses to consider possibilities for innovation in tariff offerings. We would favourably consider further analysis and well designed trials of innovative retail tariffs (including scarcity pricing) which will better prepare the industry for further innovation.

We are mindful of potential difficulties which the introduction of choice might present but we will welcome well thought through proposals that seek to ensure that efficiency and customer service are enhanced.

We will look favourably on proposals which emphasise the provision of comprehensive and easily understandable information to consumers to assist them making informed decisions about choice in water tariffs.

Unbundling / disaggregated charges

We believe that vertically integrated water businesses should consider unbundling and disaggregating their costs for a number of reasons. Separating out businesses' costs between different segments of their business could be necessary given the possibility of a third party access regime in Victoria. Such a regime will require businesses to be aware of costs at specific parts of their network. This disaggregation could be published or unpublished. In addition, unbundling could assist businesses in benchmarking their costs.

Concessions and other policies to protect low income and vulnerable customers

The government manages adverse impacts for low income and vulnerable customers through concessions policies and other measures. We expect that in undertaking their analysis of retail tariff options, water businesses will identify any potential impacts for low income and vulnerable customers and consult with government where appropriate.

Questions **Retail tariffs**

What are the implications of increased variability and uncertainty in bulk water costs for retail tariff structures and levels?

What are the efficient options for managing this uncertainty and meeting other WIRO objectives and the pricing principles?

Are there net benefits in reflecting differences in distribution system costs by time or location in retail tariffs?

Are there any factors that would support a water business's default retail water tariff not being a two-part tariff?

What approach should we take to innovations to default tariff offerings?

Are businesses in a position to be able to offer choice to water customers?

What constraints are there in offering a choice in water tariffs?

5.3 Sewerage tariff

Similar to water tariffs, in the case of Melbourne, the 2013 Water Price Review will need to assess both bulk and retail sewerage tariffs.

Bulk sewerage charges

Melbourne Water's bulk sewerage service charges comprise fixed service charges to each water retailer and volumetric charges for the Eastern and Western Treatment Plants based on long run marginal cost. Trade waste charges are based on measured load parameters and set based on long run marginal cost. Sewerage charges are set out in Table 5.4.

Table 5.4 **Victorian metropolitan bulk sewerage charges**

| <i>Water Business</i> | <i>Bulk sewerage service charges</i> | <i>Bulk sewerage usage charges</i> | |
|-----------------------|--------------------------------------|------------------------------------|-----------------------|
| | | <i>Volume (per ML)</i> | |
| | <i>(per month)</i> | <i>Eastern system</i> | <i>Western system</i> |
| City West Water | \$5,670,403.38 | | \$283.36 |
| South East Water | \$8,608,986.95 | \$454.66 | \$283.36 |
| Yarra Valley Water | \$9,452,977.19 | \$454.66 | \$283.36 |

The bulk sewerage structure appears consistent with the proposed pricing principles; it appears to provide appropriate signals to the water retailers and other parties, for example to guide investment decisions in sewage treatment plants Melbourne Water's approach to setting the volumetric charges appears consistent with the proposed pricing principles.

Retail sewage disposal charges

Retail sewage disposal charges in Melbourne are structured as a two part tariff comprised of a fixed and volumetric component. The volumetric component is based on assumptions of the volume of water coming into a property that is discharged into the sewer system adjusted for seasonal variation. Regional water businesses only levy fixed charges for sewerage services, as seen in Table 5.5.

Table 5.5 Retail fixed and variable sewerage charges 2011-12

| <i>Water company</i> | <i>Fixed</i> | <i>Volumetric</i> | <i>Notes</i> |
|-------------------------|--------------|-------------------|---|
| City West Water | \$217.19 | \$1.7374 /L | |
| South East Water | \$335.68 | | |
| Yarra Valley Water | \$321.50 | \$1.9546 /L | |
| Barwon Water | \$499.59 | | |
| Central Highlands Water | \$645.60 | \$1.7116 /L | Locational pricing used, figures based on largest town/city |
| Coliban Water | \$546.91 | | Locational pricing used, figures based on largest town/city |
| East Gippsland Water | \$595.37 | | Locational pricing used, figures based on largest town/city |
| Gippsland Water | \$734.43 | | |
| Goulburn Valley Water | \$386.42 | | |
| GWMWater | \$406.20 | | Locational pricing used, figures based on largest town/city |
| Lower Murray Water | \$414.63 | | |
| North East Water | \$226.50 | | Locational pricing used, figures based on largest town/city |
| South Gippsland Water | \$437.87 | | Locational pricing used, figures based on largest town/city |
| Wannon Water | \$660.68 | | Locational pricing used, figures based on largest town/city |
| Western Water | \$496.33 | | |
| Westernport Water | \$533.57 | | |

The Productivity Commission has noted that the two part sewerage tariff approach is unusual in Australia, where retail sewage tariffs are normally charged as single fixed period charges on either a per property or meter size basis. The Productivity Commission has also noted that it is unlikely that the demand for domestic sewage services can be influenced by price to the same degree as demand for water overall. Households have less scope to adjust their use of indoor water (as opposed to outdoor water) in response to price changes, which is what determines wastewater production.¹⁴

¹⁴ Productivity Commission, *Australia's Urban Water Sector Draft Report*, April 2011, p. 160-1

Our 2009 price decision for metropolitan Melbourne commented that we believed the retailers' variable sewerage charges appear well above estimates of marginal cost and queried the appropriateness of variable sewerage charges, given that sewage discharges are not metered and marginal sewage disposal costs appear to be low. A recent estimate of the long-run marginal cost of sewage treatment by the NSW Independent Pricing and Review Tribunal is in a range of \$0.20-0.30/kL.¹⁵

Regional water businesses set sewerage charges on a fixed basis for residential customers and for other customers in relation to meter size.

Some regional water businesses set sewerage charges that vary by location. These differences partly reflect differences in the cost structures of sewage transport and sewage treatment plants in different locations.

Trade waste charges currently vary according to volume and strength of the discharge and may vary with location. There may be opportunities to provide stronger locational signalling in metropolitan Melbourne that reflects the marginal cost of treating discharge at the Eastern or Western treatment plant or at a local treatment plant.

Questions **Sewerage and trade waste tariffs**

Does the structure of Melbourne Water's bulk sewerage charges need to be reviewed?

Does the structure of the Melbourne water retailers' sewage disposal charges provide the right balance between efficiency, and the ability of customers to respond, simplicity, and equity?

Are there any issues with regional urban water businesses' sewerage tariffs?

Do trade waste disposal charges provide the right balance between efficiency, and the ability of customers to respond, simplicity, and equity?

5.4 Recycled water charges

Currently, recycled water prices are regulated through a combination of scheduled prices and pricing principles. The pricing principles apply in cases where recycled water services are provided to large non-residential or unique customers. Prices charged for third pipe recycled water services must be reflected in the businesses' proposed tariff schedule and are subject to an annual price approval process.

In Victoria, the market for the sale of recycled water is driven by a number of factors including the recent drought and limited availability of potable water supplies, concerns about the need to improve environmental impacts and water flows and the increasing price of alternative water sources (including potable water).

¹⁵ IPART, *Review of price structures for metropolitan water utilities*, Water – Discussion Paper, June 2011, p. 40.

In our last water price decisions for regional and metropolitan water businesses the following pricing principle were adopted for recycled water.

Prices should be set so as to

- have regard to the price of any substitutes, and customers' willingness to pay
- cover the full cost of providing the service (with the exception of services related to specified obligations or maintaining the balance of supply and demand)
- include a variable component.

Where a business does not propose to fully recover the costs associated with recycled water, it must demonstrate to the Commission that

- it has assessed the costs and benefits of pursuing the recycled water project
- it has clearly identified the basis on which any revenue shortfall is to be recovered
- if the revenue shortfall is to be recovered from non-recycled water customers
 - the project is required by 'specified obligations' or
 - there has been consultation with the affected customers about their willingness to pay for the benefits of increased recycling.

Our 2008 decision also set out cost allocation principles relating to the allocation of wastewater treatment costs among wastewater dischargers and recycled water customers which required

- Where water is recycled as a least cost alternative to treating and disposing of effluent or complying with discharge licence standards, the treatment costs should be recovered on a 'polluter pays' basis through sewerage and trade waste charges, with any revenue derived from the beneficial reuse of treated effluent used to offset sewerage and trade waste fixed charges.
- Revenue shortfalls from recycled water initiatives undertaken to meet specified obligations, including Government recycling obligations or supply and demand balancing, may be recovered from the general customer base through variable water charges where such recycling confers benefits on all water customers (through improved availability or security of potable water supplies).
- The costs of discretionary projects undertaken for environmental, social or other reasons, not directly related to specified government targets, should generally be recovered from recycled water users. However, to the extent that the broader customer base benefits (from managing supply and demand or from improved environmental values), there may be a case for spreading an appropriate share of treatment costs across the broader customer base.

Melbourne Water and the metropolitan retail businesses are subject to water recycling targets, which are included in their Statements of Obligations. To aid the businesses in meeting these targets, the businesses were enabled to mandate the take-up of third pipe reticulated recycled water in new residential developments.

During the last price review, the metropolitan retailers proposed to maintain a two part tariff for third pipe recycled water services with a variable charge pegged to the first tier price of potable water. They also proposed to increase recycled water charges at the same rate as the charges for potable water.

During the review, customer submissions argued that the businesses' pricing proposals provide customers with little incentive to use recycled water and that recycled water should be subjected to a great degree of cross subsidy to promote its uptake. On the other hand, businesses argued that the costs that are directly attributable to providing recycled water via third pipe significantly outweigh the revenue received for the service.

The Commission approved the retail businesses' proposals to set the variable recycled water charge for third pipe customers equal to the first tier potable water price while restrictions are in place. However, we required the retailers to revise their recycled water tariffs as restrictions are eased during the regulatory period. We also required the retailers to develop a full pricing strategy to be implemented for the forecast easing of water restrictions in the next regulatory period.

Since the last Water Price Review, the 2010 National Water Initiative Pricing Principles for recycled water and stormwater have been endorsed by the Natural Resources Ministerial Council, and the National Water Commission has published a report on recycled water and stormwater pricing principles which included analysis of experience in Melbourne.¹⁶

Principle 1: Flexible regulation

Light handed and flexible regulation (including use of pricing principles) is preferable, as it is generally more cost-efficient than formal regulation. However, formal regulation (e.g. establishing maximum prices and revenue caps to address problems arising from market power) should be employed where it will improve economic efficiency.

Principle 2: Cost allocation

When allocating costs, a beneficiary pays approach — typically including direct user pay contributions — should be the starting point, with specific cost share across beneficiaries based on the scheme's drivers (and other characteristics of the recycled water/stormwater reuse scheme).

Principle 3: Water usage charge

Prices to contain a water usage (i.e. volumetric) charge.

Principle 4: Substitutes

Regard to the price of substitutes (potable water and raw water) may be necessary when setting the upper bound of a price band.

Principle 5: Differential pricing

Pricing structures should be able to reflect differentiation in the quality or reliability of water supply.

¹⁶ National Water Commission, Canberra, Centre for International Economics, *Pricing principles for recycled water and stormwater reuse*, Waterlines report, 2010.

Principle 6: Integrated water resource planning

Where appropriate, pricing should reflect the role of recycled water as part of an integrated water resource planning system.

Principle 7: Cost recovery

Prices should recover efficient, full direct costs — with system-wide incremental costs (adjusted for avoided costs and externalities) as the lower limit, and the lesser of stand alone costs and willingness to pay as the upper limit. Any full cost recovery gap should be recovered with reference to all beneficiaries of the avoided costs and externalities. Subsidies and Community Service Obligation payments should be reviewed periodically and, where appropriate, reduced over time.

Principle 8: Transparency

Prices should be transparent, understandable to users and published to assist efficient choices.

Principle 9: Gradual approach

Prices should be appropriate for adopting a strategy of ‘gradualism’ to allow consumer education and time for the community to adapt

As discussed above, a key objective of the Government’s policy is for recycled water as well as stormwater and rainwater sources to provide Victoria’s next major water augmentation. The Ministerial Advisory Council is considering a range of policy questions including establishing a common approach to economic evaluation, the assessment of investment proposals and potentially recycled water tariff structures. The Commission will be guided by any outcome of this review.

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| <p>Questions Recycled Water</p> <p>Are any changes required in the approach to determining recycled water prices having regard to the experience in the last Price Review period, the proposed pricing principles, the WIRO Regulatory Principles or the NWI pricing principles for recycled water and storm water?</p> |
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5.5 Melbourne Water Waterways and Drainage charges

Melbourne Water provides drainage, waterways and floodplain management services in the greater Melbourne metropolitan area. In providing these services, it undertakes programs to improve the health of rivers and creeks, improve stormwater quality, provide drainage infrastructure to service urban growth and provide sufficient levels of flood protection.

In the 2008 Water Price Review, we approved reforms to drainage and waterways charges in Melbourne. Previously, charges were based on 1990 property values and a uniform minimum price for all customers. The reforms phased out the property value charge and

introduced fixed charges for residential and rural customers to better reflect the cost of waterways and drainage services.

Waterways and drainage charges for non-residential customers

Reforms for charges to non-residential customers were partially implemented. We approved Melbourne Water's proposal for a higher minimum charge but otherwise charges continued to be based on property values. Melbourne Water undertook to continue investigating options for further reform. In this context, we note that Government policy is now more focused on opportunities for better managing and expanding the use of stormwater.

We understand that there are options for making non-residential waterways and drainage charges more cost reflective. For example, charges could be based on property size and extent of impervious surfaces (such as concreted areas and roofing) as a proxy for quantity and quality of stormwater runoff.

The efficiency benefits of such pricing reforms depend on

- the cost characteristics of stormwater services
- whether improving the cost reflectivity of charges may positively change behaviour by relevant decision makers including developers, building owners and local government.

Practicalities of reform

The Productivity Commission considers stormwater services are essentially a fixed cost operation and therefore fixed charges are considered appropriate.¹⁷

On the other hand proponents of water sensitive urban design consider that more innovative approaches to local management of stormwater, at the time new stormwater systems are being designed or when existing stormwater systems are being upgraded, may create stormwater infrastructure cost saving benefits as well as environmental and liveability benefits.

If a more cost reflective charging structure were shown to have benefits, then these would need to be weighed against factors such as ease of operation, administrative simplicity and customer impacts.

If reforms were proposed, the non-residential sector appears to be the appropriate customer group for the initial implementation of these reforms. There are many methodologies that would be superior to deriving a charge based on land value that would better reflect the permeability of land-use.

¹⁷ Productivity Commission, *Australia's urban water sector draft report*, April 2011, p. 162

Questions **Waterways and drainage charges**

Is there a need to further reform waterways and drainage charges and, if so, what options exist for further reform that better reflects the underlying cost characteristics of waterways and drainage services?

Are there efficiency benefits in more cost reflective waterways and drainage charges, in particular for non-residential customers?

What are the practical administrative and equity considerations?

6 | TARIFFS AND CUSTOMER CHOICE

The themes of customer choice and a stronger customer voice are common to many current water discussions. As discussed in section 2, we have identified this as a key contextual matter for this review.

While there are many aspects of customer choice, the ability of customers to choose from a range of alternative tariffs is one possibility.

Water businesses are not required to offer choice and government policy and industry practices in this area are still evolving. However, we expect that all water businesses will develop their views and we understand some intend to seek to include some tariff proposals related to customer choice in their 2013 Water Plans.

In that context, this section raises issues concerning tariffs and customer choice. We are keen to engage with water businesses actively on expectations and options in relation to customer choice on the 2013 Water Price Review. Ultimately, proposals for customer choice will be the decisions of water businesses which will need to decide whether there is sufficient demand for choice and whether they have the capability and systems to manage the introduction of customer choice.

6.1 How customer choice could be introduced in 2013

Similar to the approach discussed for alternative tariffs, we are inclined to take a supportive approach to innovations in customer choice within the 2013 Water Price Review period.

In section 3 we proposed a principle -- that consistent treatment of customers on a state-wide basis should be balanced with the benefits of innovation by individual water businesses. This was because under the WIRO, water businesses could propose different approaches to offering customer choice and similar customers across the state could have different opportunities depending on where they were located, even though there were similar underlying supply opportunities.

We would expect and encourage the retail water businesses to consult closely with each other and with customers. We also expect that the water businesses will undertake appropriate engagement and consultation with government to ensure that any proposals clearly comply with government policy and that clarification of policy is sought where needed.

6.2 Are default tariffs needed?

If the water industry were to move away from offering a single regulated tariff in each class towards offering choice to customers, there would be two possible approaches to offering customer choice. The first is for a water retailer to offer a standard default tariff, which would be made available to all customers in a class, and would be provided unless the customer chose otherwise. This default tariff could include a tariff structure familiar to most customers such as a fixed and variable component for water and a fixed (and possibly variable) sewerage tariff structure. If a customer were not to engage with the choice framework, this default tariff would apply to them. The alternative approach would be to offer a range of tariff options and require customers to choose; customers would have to choose an option and have no default option.

We consider that if a water business proposes consumer choice then a standard default tariff approach is preferred. This avoids the need for all customers to exercise choice in what will be a relatively immature environment. This approach is consistent with other essential services such as electricity and gas.

6.3 Potential alternative tariffs

To aid discussion about tariff choice we have listed some tariff options based on those publicly discussed by some water businesses, which could be offered in support of customer choice. We express no opinion on the feasibility or desirability of these options at this time. These are set out in Box 6.1.

Box 6.1 Examples of Tariffs for Customer Choice

- A fixed/stable price/tariff for a defined level of supply security. The volumetric charge would be fixed over several years. Any variability in costs would be smoothed over a number of years. A fixed access charge would also be included.
- A flexible tariff option with a volumetric charge that varies over time to reflect variability in market bulk water prices (regional water businesses) or the scarcity value of water. Customers would have the opportunity to use more water when prices were low and cut back consumption when prices were higher.
- Different tariffs for different security of supply levels. Users willing to comply with restrictions at times of water scarcity would pay a lower price than those seeking (and willing to pay for) a higher level of supply security.
- Fixed quantity contracts with a fixed security of supply charge that guarantees a certain contracted amount of water at discounted volumetric charge for all units within this limit. Once the limit is reached the customer might face a higher volumetric price for every incremental unit.
- An environment tariff. Customers would pay extra for their water to be delivered using environmentally friendly methods such as green power, or to ensure extra flows are returned to stressed rivers.
- A community tariff. Customers would pay extra to ensure that groups such as sporting clubs had access to water.

6.4 How we will evaluate customer choice proposals

We believe that the regulatory principles set out in the WIRO and the objectives in the ESC Act would apply to alternative tariff options as well as to a standard default tariff. Therefore, we propose to adopt the pricing principles proposed in section 3 of this paper when looking at any proposals for customer choice.

However, this does not mean that we will apply exactly the same weightings to these principles. In the case of tariff options we recognise that a customer is consciously adopting a tariff option because they prefer this to the standard default option.

Our current thinking is that

- The water businesses' proposed customer choice strategy must be well developed, have a clear statement of objectives, and include clear communication, implementation and monitoring plans
- The strategy must demonstrate compliance with government policy
- The administrative arrangements for differences in services should be practical
- There is clear communication with the customers so that target customers can fully understand the tariff option and compare it to the standard default tariff
- The tariff option is reasonably reflective of the efficient costs of providing the service including differences in risks associated with that service
- The associated costs of providing choice are efficient and proportionate (associated costs include administration, information, metering, billing and customer service costs).

6.5 Considerations with customer choice

The types of additions or modifications to the Commission's regulatory framework that would be required by the introduction of customer choice would depend on the nature of the choice being offered. We can see choice being based on two models

- Consumer preference or risk allocation. This type of choice would enable customers and water businesses to alter the existing price and service package and allow customers to take on greater risk management to better meet their preferences. An example of this could be a customer choosing to adopt a fully variable tariff or electing to be subject to greater or lesser water restrictions during times of water shortage.
- Additional service choice. This type of choice would allow the customer to pay for services beyond those set by the Commission's determinations. This could include customers choosing packages that favour environmentally friendly water management techniques, or that provide other community services.

Under these two choice models, the Commission's required role appears to be different. The risk-allocation choice model appears to require our involvement given that it has implications for a water business's prices and revenue. Given this, we would need to be satisfied that the outcomes of such choice would fit within the form of control and the allowed revenue.

With the additional service type options, this appears not to require our close involvement in pricing and could be quarantined from the regulated revenue requirement. There may still be some consumer protection matters that would require our attention but on the whole our involvement would be minimal.

On the matter of consumer protection, customer choice would require changes to the regulatory system and information that water businesses provide in order to manage any risks to customers. The Commission would need to augment its consumer protection framework to ensure that customers continued to be protected in the context of choice of tariffs and prices.

Experience with other sectors shows that choice introduces a range of market conduct issues that would need to be dealt with, as well as the necessity of ensuring that customers are given sufficient information to make informed choices.

Water businesses would need to release information relevant to a customer choice framework. This would need to include information disclosure on the terms and conditions offered to consumers, switching rules, comparison tools, and cooling off periods. As a minimum for this to work, any benefits or costs of tariff choices would need to be clearly communicated to customers by the water businesses.

Questions **Tariffs and customer choice**

Should the Commission allow water businesses to offer customers choice in tariff offerings?

If so, is the Commission's proposal to regulate only default tariffs supported?

What role should the Commission play with respect to alternative tariffs offered by water businesses?

If tariff choice is introduced, what aspects of consumer protection would need to be introduced or enhanced?