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National Water Commission submission to the Economic Regulation Authority's proposal to amend water service operating licences

The National Water Commission (Commission) welcomes the opportunity to comment on the Economic Regulation Authority (ERA) proposal to amend Water Service Operating Licences (WSOL) in Western Australia. The effective and efficient regulation of water service operators is important to deliver National Water Initiative (NWI) outcomes in relation to healthy, safe and reliable water supplies, water use efficiency, innovation and water sensitive cities.

The Commission has delivered a body of work to support reforms in the urban water sector. The most recent position in relation to the regulation of water service providers is contained in the Urban Water in Australia: Future Directions report. This is supported by more detailed analysis of pricing structures (April 2011), regulation reforms (Waterlines report No 47, May 2011) and National Performance Reporting (2011/12).

In this work, the Commission has called for a more efficient, adaptive and customer driver approach to water services in urban areas, specifically:

- Urban water is managed efficiently and represents value to customers
- Regulation of water service providers is risk based, outcome focused and provides incentives for customer focus in service delivery
- Regulation that is more flexible and encourages innovation in price and service offerings

In this submission we have not responded to each of the proposed amendments to the WSOL. We have chosen to focus our response on the characteristics of the amendments that we consider support or inhibit the above outcomes.

Schedule 1 – licence details

The Commission notes the separation of regulatory requirements for potable and non-potable water. During the Commission's consultation with stakeholders on urban water quality regulatory arrangements in 2011 many water industry professionals noted the challenges and cost burdens with applying different regulations to different water supply options. Application of different guidelines to different water sources was found to reduce the overall efficiency and cost effectiveness of regulation (NWC Waterlines 47, page 83-86).

The Commission would like to see harmonisation of regulation and guidelines where this improves the efficiency and effectiveness of service providers.

Schedule 2 – Customer Provisions

The Commission notes the clause relating to customer consultation and customer surveys have been deleted from the WSOL:

> *"Drafting Comment: the clause on Customer Consultation has been deleted. Energy licensees are not required to undertake consultation and it is not clear what additional benefits of requiring water licensees to consult are, while costs are imposed and ultimately passed on to customers"* (Page 22 Proposed amendments to the operating licences)

We note that removing the scope for customer engagement may limit the capacity and incentive for water businesses to be responsive to the differing needs of customers. As stated in the Future Directions report, the Commission believes customers should be given a voice in the way in which urban water services are delivered.

The COAG Urban Water Planning Principles also support customer engagement in urban water planning calling for "*a partnership approach so that stakeholders are able to make an informed contribution to urban water planning, including consideration of the appropriate supply/demand balance*".

The Water Services Association of Australia's recently developed vision for the water sector calls for "*Customer driven, enriching life*". The vision recognises the importance of service providers being customer focussed, and the role of service providers in contributing to liveable communities.

In looking to understand the role of customer choice in water services the Commission recently engaged Frontier Economics to deliver a *Review of urban water customer choice options, policy drivers and regulatory instruments* (Attachment A). The Review provides examples of the important role of community engagement in water service offerings, particularly in optimising capital investments and improving customer satisfaction.

This Review also analyses customer engagement mechanisms and presents best practice principles drawing from examples in the UK and other sectors including energy. An important feature of customer engagement in the UK was that service standards should be considered in terms of consumers' attitudes, including willingness and ability to pay.

The Commission would like to see provision in the WSOL that enables water service providers to engage with their customers in determining values and preferences. It is important that customers and communities can make informed judgments on the service options available including their costs and benefits.

Schedule 3 – Performance Standards

The Commission welcomes strengthening of performance reporting standards to be consistent with best practice principles, in-line with National Performance Reporting frameworks and drawing from regulatory regimes across jurisdictions.

Schedule 5 – Other Provisions

We note that the clause relating to "*obligations to Customers: Availability and Connection of Services*" is to be replaced by the Water Services Customer Code (The Code). The Commission is encouraged that the Code will strengthen the processes for handling of complaints; however, we are concerned that there is no provision in the Code or the WSOL's for community engagement in the development of service offerings.

We consider customer engagement to be important to delivering consumer satisfaction and reducing customer complaints, optimising service offerings and planning for long term water security. The Commission would like to see the Code include a provision for customer engagement which allows utilities flexibility to tailor their services to meet the needs of each region and customer grouping.

Conclusion

The Commission welcomes the opportunity to provide a submission to ERA's proposed amendments to the WSOL's in WA. We support the strengthening of reporting standards and handling of customer complaints, however also consider customer engagement an important element of service provision.

For further information regarding this submission please contact Paul Smith at (02) 6102 6045 or paul.smith@nwc.gov.au.

Yours sincerely

Kerry Olsson
Acting Chief Executive Officer
7 August 2013

Review of urban water customer choice options, policy drivers and regulatory instruments

A REPORT PREPARED FOR THE NATIONAL WATER COMMISSION

July 2013

Review of urban water customer choice options, policy drivers and regulatory instruments

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Background

In order to identify opportunities for reform in urban water policy to ensure that the sector was well placed to meet customer and community expectations in the future, in 2011 the Commission launched a project *Developing Future Directions for the Australian Urban Water Sector*. Reflecting its finding that the water sector is out of step with other sectors in terms of a genuine customer focus, a key recommendation of the report was that governments, regulators and service providers should ensure that the urban water sector gives a greater voice to customers through exploring opportunities for customer choice in pricing and service delivery, improved engagement in objective setting and the determination of trade-offs, improved customer protection frameworks, and competition.

This review seeks to enhance the Commission's understanding of the progress that is being made implementing these recommendations as a prelude to the development of an enhanced urban water reform agenda in 2014.

Customer choice and its potential role in achieving urban water objectives

For the purposes of this report, we have adopted a fairly broad interpretation of 'customer choice' to encompass any arrangement where customers are able to make or influence decisions about the urban water services provided to them. In particular, we have defined customer choice to include both:

- Individual customer choice: situations where individual customers can choose between alternative tariffs, services or providers.
- Collective customer choice: situations where it may not be possible for a provider to offer individual customers choice through a differentiated product, but where customers as a group can have an input into the choice between the costs and benefits of different levels of service (e.g. via surveys, willingness to pay studies, customer panels or other forms of customer engagement).

It is also important to recognise that the urban water sector serves a range of 'customers'. These include not just the households, commercial and industrial customers to whom water businesses supply water, wastewater and trade waste services, but also extend to developers and local/state governments to whom they can potentially offer a broader range of services, including environmental outcomes and urban amenity values. It is important to recognise that different customers and different types of customers may want different things from their water and sewerage services.

Interest in opportunities for greater customer choice in the urban water industry should not be about greater choice for its own sake. Rather, the issue is whether, and if so, how, greater customer choice could best contribute to improved urban

water outcomes that maximise the value of these services to customers and the broader community. By helping to ensure that water users receive the services they want and are prepared to pay for, customer choice can improve efficiency. By facilitating options for alternative products such as recycled water it can also potentially contribute to more environmentally sustainable outcomes. In addition, optimising the trade-offs between cost and service standards to reflect customers' values is critical to achieving socially beneficial urban water outcomes.

Progress to date

The urban water sector is clearly evolving from one which was dominated by an engineering mindset whereby decisions on virtually all aspects of urban water services have been determined by central planners' views as to what is best for urban water users. Since microeconomic reforms dating back to the mid 1990s, there has been a gradual widening of the options open to urban water users and moves towards consulting customers to ascertain their views and preferences.

Key drivers of this growing interest in the scope for expanding choice include:

- reforms in other utility sectors generating debate amongst policymakers
- changing culture in the industry
- emerging technological developments allowing alternative sources of water
- growing demand by communities to be consulted on issues affecting the local environment and liveability
- reaction against centrally determined supply augmentations undertaken with little or no public consultation and now impacting on people's water bills
- land development demands

At the most basic level, customers have some choice over the quantity of services provided by their monopoly water supplier by conserving water, installing water efficient appliances, or installing water tanks, while industrial customers may have some ability to undertake on-site treatment of trade waste. In general, there has been a move toward more cost-reflective tariffs in the water sector across Australia which should help to ensure that the most cost-effective solutions are adopted.

Although there has been considerable discussion of tariff choices for customers in the public debate, there is little evidence that such options have been implemented in practice. To date there is no evidence of an urban water supplier offering a differing level of security product for a different price, although in recent years there does appear to be a greater range of billing and customer service options emerging as some urban water businesses seek to take a greater customer focus. One notable area relates to different billing arrangements and on-line management of customers' water accounts. The scope for offering

differentiated or non-standard services appears to be particularly relevant for larger non-residential customers.

Another form of choice that may be able to be offered to individual customers by the incumbent water supplier is an alternative product or source of supply (e.g. an option to take recycled water as an alternative to or partial substitute for potable water supply). In recent years there has been a significant increase in the supply of recycled water as an alternative to potable water for some customers. There have been a number of examples across several jurisdictions where developers or other parties have sought to have an alternative supply to the traditional centralised solution offered by the incumbent water utility.

Arguably the most direct form of customer choice is where customers can choose to switch from their current supplier to a new supplier. This form of customer choice - known as 'retail competition' - has been implemented in a number of utility industries in Australia and elsewhere, most notably in electricity, gas and telecommunications. To date in Australia no jurisdiction has established retail competition for urban water services, although moves towards increasing competition have been initiated in a number of jurisdictions. The most significant reform to allow choice of supplier has occurred in NSW under the Water Industry Competition Act (WICA), although several other States have also flagged similar reforms.

In regard to collective customer choice, approaches to public consultation with customers and other stakeholders on service/price trade-offs by the water industry continue to evolve. Often, however, the most significant cost/service trade-offs relate to matters beyond the purview of the water utilities themselves.

While Australian urban water businesses typically have their own customer committees with which they engage on a range of issues, at present, however, there is no government-funded consumer or advocacy group in the urban water sector.

An overview of customer choice options identified in this report is in the table below.

Table 1: Customer choice options: overview of current status

	Individual tariff/service choices	Individual customer choice over supplier	Collective customer choice: water utilities	Collective customer choice: external standards
NSW	Scope limited by uniform pricing and prescriptive price setting	Third party access and licensing regime in place under WICA	Water businesses adopting advanced techniques to meet regulator's requirements	Some WTP studies by MWD for urban water planning Appears to be limited engagement on environmental standards
Victoria	One metropolitan business offering trial tariff options	Third party access regime advocated in policy documents, but not implemented to date	Extent of customer engagement varies	Has been limited past engagement on supply-demand planning and environmental standards but Office of Living Victoria currently consulting on Melbourne's Water Future
Queensland	Choice of tariffs in Townsville	No policy initiatives for choice of supplier	Many decisions devolved to local govt	Many decisions devolved to local govt
South Australia	Scope limited by uniform pricing and prescriptive price setting. ESCOSA to review tariff structures	Third party access regime to be developed	Consultation by SA Water on local issues but regulatory framework new	SA Government has consulted widely on long-term supply/demand options. Appears to be limited engagement on environmental standards
Western Australia	Scope limited by uniform pricing and prescriptive price setting	Licensing regime overseen by ERA Access regime recommended by ERA several years ago, but not implemented	Water Corporation undertake broad customer surveys but no formal WTP studies	Water Corporation has consulted widely on long-term supply/demand options. Appears to be limited engagement on environmental standards

Tasmania	Scope limited by uniform pricing and prescriptive price setting	No policy initiatives for choice of supplier	OTTER requires the regulated entities to adopt accepted industry practices when undertaking consultation with stakeholders on their proposed price and service plans	Moving to achieve minimum drinking water quality standards across State
Australian Capital Territory	Scope limited by uniform pricing and prescriptive price setting. The ICRC will review the tariff structures for water and sewerage during the next regulatory period including more flexible pricing	No policy initiatives for choice of supplier	ICRC released consultation paper on indicative water prices and bills	ACTEW has consulted widely on long-term supply/demand options Appears to be limited engagement on environmental standards
Northern Territory	Scope limited by uniform pricing and prescriptive price setting	No policy initiatives for choice of supplier	Prices & service standards set by Government (no public review process overseen by independent economic regulator)	Appears to be limited engagement on environmental standards

Opportunities for greater customer choice

The sorts of choice that have been available to individual customers to date have however been somewhat constrained. Key impediments to a wider degree of choice include:

- lack of competition due to the existence of government-owned water businesses
- postage stamp pricing policies
- uniform restrictions
- prescriptive approaches to economic and technical regulation
- community attitudes towards water as a 'public good'

There are clearly many opportunities for further enhancing customer choice in the urban water sector in Australia.

In assessing and prioritising these opportunities, it is important to focus on the underlying policy objectives of offering greater choice: the extent to which they are likely to facilitate the provision of secure, safe, healthy and reliable water–related services to urban communities in an economically efficient and sustainable manner. It is also important to recognise the features of the urban water sector that mean that it may be difficult or costly to adopt the competitive choice market model that has been implemented in the energy and other utility sectors. The merits of particular types of customer choice options may also vary depending on local circumstances.

Finally, it is important to take into account the type of customers most likely to benefit from having greater choice and the sorts of choice which they are likely to value and seek to exercise. It needs to be recognised that people attach values to water that extend beyond their value as a service to the role of water in the environment and enhancing liveability.

Our assessment is that the largest payoffs are likely to come from ensuring that future capital investments are optimised. Key drivers of future capital expenditure include meeting future growth and compliance with environmental and other standards. This suggests that significant benefits are likely to come from opening up choice for servicing new infill and greenfield developments. It also suggests that ensuring that key standards - such as the level of security of supply and environmental standards – are themselves subject to cost-benefit or willingness to pay assessments that includes effective engagement with customers.

In terms of individual choice, the greatest benefits from providing greater choice to individual customers are likely to apply to larger non-residential customers and developers, rather than to smaller household and other customers. This is because the basic water and sewerage services provided to households are

relatively homogeneous and retail functions account for a very low proportion of a customer's bill. There may therefore be little benefit in opening these to competition relative to the costs involved in doing so. There may be more scope to differentiate the service provided to larger customers and to developers to reflect their particular needs and requirements. This includes the potential to provide an alternative water supply source such as recycled water. Even within the context of monopoly supply, however, there may be opportunities to offer value added services to customers such as on-line billing and other customer services, and, with some caveats, alternative tariff options.

In relation to collective customer choice, while the Commission does not wish to prescribe the nature and extent of engagement that should be undertaken by water businesses or other agencies that may determine cost/service trade-offs, there would appear to be opportunities for them to further improve their engagement with customers.

While it is clearly important that engagement with customers is undertaken to inform collective choices on service standards and associated costs, another issue that emerged during the course of this review was the question of the relative roles of different parties in undertaking this engagement, particularly in the context of regulatory price reviews. A particular question is the extent to which businesses should undertake such engagement themselves as opposed to engagement processes undertaken by economic or other regulators.

Reform opportunities

This report has identified a number of reform opportunities that may enhance the role of customer choice and a greater customer voice in supporting the NWI high-level objectives of water security, safety, efficiency and sustainability.

These include:

- Rolling out State-based third party access and related licensing regimes and customer protection frameworks to make it easier for new entrants particularly those wishing to provide alternative water solutions. This would also represent a necessary prerequisite should there be any future initiatives to progressively introduce retail competition.
- Providing greater flexibility in regulatory arrangements for water businesses to propose alternative tariffs, subject to a number of safeguards.
- Developing national best practice principles on customer engagement and/or incorporating obligations in the regulatory frameworks overseen by economic regulators for water businesses to undertake specified consultation in developing their pricing submissions.
- Ensuring that regulators or other agencies making decisions on standards to apply to water and related services (including long-term supply-demand

planning processes) engage with customers and the broader community and fully comply with RIS requirements.

1 Purpose of study

1.1 Background

The National Water Commission's key role is in assessing and assisting the implementation of water reforms across Australia designed to achieve the objectives and outcomes agreed under the National Water Initiative (NWI).

The overarching objective of the NWI is to develop a "nationally compatible market, regulatory and planning based system of managing surface and groundwater resources for rural and urban use that optimises economic, social and environmental outcomes".

Arguably, however, the NWI focuses predominantly on rural water issues and the environment and provides relatively little guidance on urban water reform. The Commission's biennial assessments in 2007 and 2009 raised concerns about the performance of the urban water sector and its ability to respond to current and future challenges such as extended drought and climate change.

In order to identify opportunities for reform in urban water policy to ensure that the sector was well placed to meet customer and community expectations in the future, in 2011 the Commission launched a project *Developing Future Directions for the Australian Urban Water Sector*. The report articulated an objective for the urban water sector as follows:

> A successful Australian urban water sector will provide secure, safe, healthy and reliable water–related services to urban communities in an economically efficient and sustainable manner. More specifically, the sector should:
>
> 1. Understand and meet the long-term interests of all water consumers in the price, quality, safety, reliability and security of supply of fit-for-purpose water and wastewater services through the efficient use of, and investment in, system, assets and resources.
>
> 2. Protect public health and the environment by ensuring that the impacts of the sector's operations and investments are managed cost-effectively in accordance with society's expectations and clearly defined obligations.
>
> 3. Enhance its effective contribution to more liveable, sustainable and economically prosperous cities in circumstances where broader social, public health and environmental benefits and costs are clearly defined and assessed, or where customers or other parties are willing or explicitly obliged to pay for the outcomes. (p.ix)

The Commission's Future Directions Report made a number of recommendations aimed at achieving these objectives. Reflecting its finding that the water sector is out of step with other sectors in terms of a genuine customer focus, a key recommendation of the Future Directions report was that:

> "governments, regulators and service providers should ensure that the urban water sector gives a greater voice to customers through exploring opportunities for customer choice in pricing and service delivery, improved engagement in objective setting and the determination of trade-offs, improved customer protection frameworks, and competition." (p.44)

1.2 Purpose of this review

This review seeks to enhance the Commission's understanding of the progress that is being made implementing these recommendations as a prelude to the development of an enhanced urban water reform agenda in 2014. In particular, it is to provide:

- an overview of customer choice options currently offered by the urban water sector with a detailed analysis of the community and policy drivers and regulatory instruments that frame them
- an assessment of where opportunities exist for further engagement by the urban water sector and what policy drivers and/or regulatory instruments could be implemented to drive reform in this area
- discussion around how these opportunities support the NWI high-level objectives of water security, safety, efficiency and sustainability as well as identification of the options to manage risks to their achievement
- a brief synopsis of where consumer engagement is currently happening in relation to the opportunities identified and to what extent effort is being placed on shifting customer perceptions.

1.3 Conduct of study

The Commission engaged Frontier Economics to assist it in the development of this report.

The study drew on publically available literature on customer choice. It also involved targeted consultation with regulators, government agencies, water businesses, customer and industry representative groups, and other stakeholders (see Attachment E).

1.4 Structure of this report

The remainder of this report is structured as follows:

- Section 2 defines customer choice and establishes a framework for evaluating alternative customer choice options.
- Section 3 identifies and evaluates a range of customer choice options involving the exercise of choice by individual customers.

- Section 4 identifies and evaluates a range of customer choice options involving the exercise of collective choice by customers as a whole.
- Section 5 draws together the key conclusions.

2 Current and potential role of customer choice in the urban water sector

2.1 What is customer choice?

It is important to define what is meant by the term 'customer choice' and how greater customer choice might lead to better urban water outcomes.

For the purposes of this report, we have adopted a fairly broad interpretation of 'customer choice' to encompass any arrangement where customers are able to make or influence decisions about the urban water services provided to them. This definition does not, however, extend to customer engagement in general or to supply source diversification where no choice is involved. These matters are therefore outside the scope of this report.

Customer choice options can be usefully classified based on:

- whether it is individual or collective choice
- the type of customers exercising choice
- the service attributes over which choice is being exercised
- the mechanisms adopted to elicit customers' choices.

Individual versus collective choice

It is helpful to distinguish between two types of customer choice: individual customer choice and collective customer choice.

Individual customer choice refers to situations where individual customers can choose between alternative offerings. For example, under some circumstances individual customers may be able to choose between alternative billing options, between mains supply and an alternative supply source, and/or between alternative suppliers.

A challenge in the urban water sector and other utility sectors is that often a single network supplies all customers. This means it will not always be possible for a provider to offer individual customers choice through a differentiated product. For example, the level of water quality will be the same for all customers on a common system who share the same supply. Similarly, it may be very difficult to offer customers different levels of security of supply from a shared supply system.

However, it may be possible to collectively offer choice to all customers on a network. In particular, there is likely to be a trade-off between different levels of service that a supplier can provide to its customers and cost. A choice must be

made on behalf of customers as a group between the costs and benefits of different levels of service.

Types of customers who can exercise choice

It is also important to recognise that the urban water sector serves a range of 'customers'. These include not just the household, commercial and industrial customers to whom water businesses supply water, wastewater and trade waste services, but also extend to developers and local/state governments to whom they can potentially offer a broader range of services, including environmental outcomes and urban amenity values. This may entail water businesses being able to offer a 'choice' between traditional supply solutions and integrated water cycle management (IWCM) approaches.

It is important to recognise that different customers and different types of customers may want different things from their water and sewerage services. Many customers, particularly households, may simply want their taps to work and their toilets to flush and to face as low a bill as possible. Many may want to have some 'control' over their bill. Other households may place a high value on being able to have a guaranteed supply of water to maintain their gardens.

Some non-residential customers, particularly those for whom water is a key input to their production processes (e.g. food manufacturers) may also be very concerned about the cost, quality, and reliability of their water supply. Security of supply is likely to be a critical issue for customers such as golf courses, nurseries and turf irrigators.

For others such as developers the issue may be less about the ongoing cost of water and more about ensuring that the source of water is seen as 'sustainable' to enable them to market a development as 'green', or for a building to achieve a certain water/energy efficiency rating.

Service attributes which could be subject to choice

There are a number of aspects or service attributes over which water customers (either individually or collectively) could influence the services provided by businesses or mandated by regulators. In particular customers could help make or inform decisions relating to the following service attributes:

- The source of supply — Customers could choose to self-supply (i.e. sewer mining for re-use on a golf course) or take an alternative supply where competition is facilitated by allowing a choice of suppliers.
- The service level and quality of service to be delivered/consumed — customers are likely to have views on the appropriate trade-off between price and the level of service (i.e. supply security, water quality standard) they wish to receive.

- The nature of expenditure undertaken — customers may have views on the specific type of investment options being considered by a water business or government.
- The form and structure of prices — customers may have views on the extent to which charges are fixed; whether there should be separate charges for different types of service and how they are billed. Tariff structures could also potentially allow individuals to choose from a menu of options.

Figure 1 below provides examples of how customers' choices (both individual and collectively) can influence various service attributes in urban water and other utility sectors.

Figure 1: Ways customers can influence service attributes

Service attributes	Individual choice	Collective choice
Source of supply	• Self supply • Competition facilitated by the Water industry competition act in NSW	• Urban water supply-demand planning processes
Service level and quality I. Security of supply II. Water quality /effluent standards III. Levels of customer service	• Some aspects of service may be amenable to individual choice	• Value of reliability in the energy network • Consultation by water businesses on the level of service they provide
Nature of investment I. Investment options II. Additional discretionary expenditure	• Provision of additional services to major customers such as on-site trade waste treatment	• Consultation on water plan investment options
Pricing I. Tariff structure II. Additional offsets	• Green energy tariffs • Alternative billing options • Greenhouse gas offsets	• Yarra Valley Water engagement on the 3 block tariff structure

Source: Frontier Economics

Mechanisms for eliciting choice

The most direct way of ascertaining customers' preferences is through competition, where customers' choices are revealed through their actions. There are also several methods that can be employed for eliciting information on customers' choices in the absence of competition (described in box 1 below).

Box 1: Methods for eliciting customer choice in the absence of competition

There is a range of methods which can be employed to engage with customers on the above matters. These include more traditional methods such as:

- Public consultation processes — a general request to consumers to garner views about aspects of the regulatory regime.
- Focus groups and stakeholder workshops — selected group of representative customers used to represent the views of consumers in general.
- Basic attitudinal consumer surveys — where customers are asked to rank the importance of different service attributes such as the quality of the water, or the frequency of service interruptions

More sophisticated methods include:

- Willingness to pay studies (WTP) — which are a form of stated preference survey. Customers are asked to make a quantitative trade-off between options such as (higher) bills and (improved) service.
- Constructive engagement — in which customers negotiate some, or all, of the aspects of the price determination with the regulated utility.

Source: Frontier Economics

2.2 The limited scope for customer choice under current arrangements

In a competitive market, consumers make choices based on a range of service attributes including price and the level and quality of service that best meets their needs. Firms are incentivised to improve their services and continually deliver services that provide a price and quality mix that meets the preferences of their customers so customers do not switch providers.

Urban water services have traditionally been delivered under a highly regulated environment which severely limits the scope to develop alternative offerings to customers. In particular, the industry largely consists of government-owned monopoly businesses that face little direct competition, are obliged to meet minimum service standards set externally by regulators and policymakers, charge prices that are determined by economic regulators, and comply with 'postage stamp' pricing and uniform restriction policies instituted by governments.

These arrangements mean that the supply of urban water and related services has been characterised by a lack of competition and choice. In large part, these services are provided by publicly owned monopoly businesses under a 'one size fits all' approach. Customers have had relatively few alternatives: they can substitute self-supply in some end uses (e.g. by installing rainwater tanks for non-potable residential uses, by purchase of bottled water), and in some cases can seek an alternative supply (e.g. recycled water) from their main supplier or another supplier.

Given customers have limited switching options, providers face muted incentives to reduce costs and innovate. They also face poor investment signals about where, when and how to invest in the service to meet customers' needs. Dampened incentives and investment signals mean providers are likely to be less responsive to customers' needs. As recently observed by IPART (2012 p.3):

> The businesses we regulate provide monopoly services. This means that customers cannot simply switch their water supplier or public transport bus service if they are unhappy with the service provided.

Another reason why customer choice may be necessarily constrained in the water industry is that customers may not be able to make informed decisions on some aspects of the service – for example the suitability of water for safe consumption.

Instead incentives to meet service standards typically come via the regulatory regime or broader policy frameworks imposed on providers. These tend to focus on ensuring the supplier sets prices based on the efficient costs of meeting pre-defined levels of service. Water businesses are then incentivised to minimise costs subject to meeting these service standards. It is worth remembering, however, that customer preferences will change over time. This means that unless the price quality mix is subject to review it may not necessarily be set at the level most valued by customers.

2.3 The potential benefits and costs of greater customer choice

Interest in opportunities for greater customer choice in the urban water industry should not be about greater choice for its own sake. Rather, the issue is whether, and if so, how, greater customer choice could best contribute to improved urban water outcomes that maximise the value of these services to customers and the broader community. In this regard, the Living Victoria Ministerial Advisory Committee observed that:

> Urban water customers generally have very little choice in the water services they receive. Many water utilities across Victoria use a 'one size fits all' approach to pricing and service offering. Recently, this has been accompanied by restrictions on water use. Opportunities are now emerging for customers to have greater choice in the water products on offer; the water charges they pay; and their level of service. Water users can therefore be much more informed about the water cycle and make decisions that best suit their budget and lifestyle. These choices can be made by individuals or by local communities. The outcome will be much better use of all our water resources.

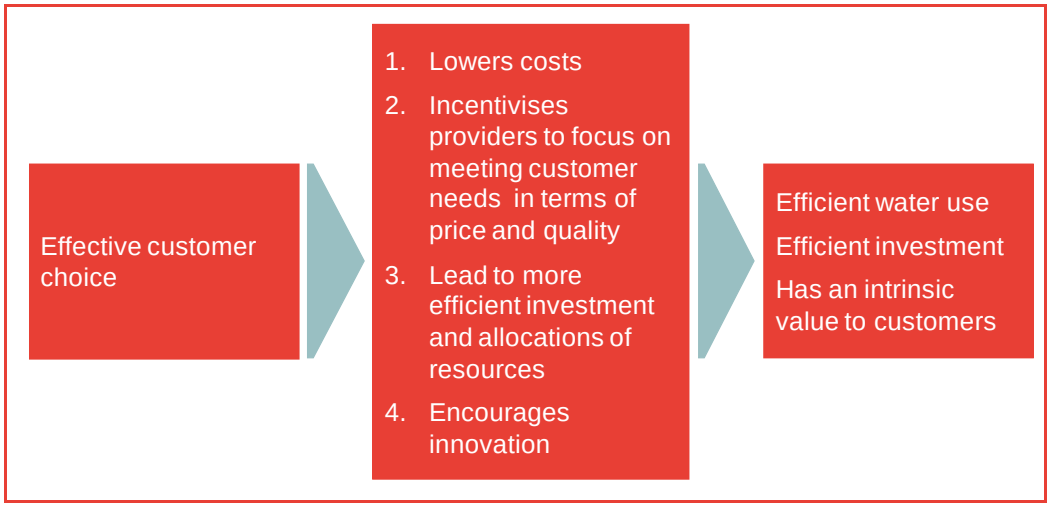
By eliciting information on customers' preferred choices, the urban water sector should be better able to deliver on the NWI objectives and in particular to "understand and meet the long-term interests of all water consumers in the price, quality, safety, reliability and security of supply of fit-for-purpose water and wastewater services". One of the key objectives for the urban water sector

identified by the Commission in the Future Directions report was for the sector to be customer–focused – not simply providing least-cost services, but understanding and meeting the diverse needs of all customers and providing value for money. The report suggested that a sector in which customers are provided with value-for-money services and have the opportunity to express their values and preferences would also require (amongst other things) that:

- Water and sewerage services are provided at the standards (quality, reliability etc) customers require at the lowest long-term cost and there is sufficient evidence to demonstrate that this is the case.
- All customers (residential, commercial, industrial and other) are able to choose from a range of water service products at different prices.
- Innovative approaches and new suppliers are able to freely enter and compete on a level playing field, subject to well-developed regulatory frameworks to safeguard public health, the environment and customers' interests.
- Water service providers understand and have incentives to meet the diverse needs of their customers without facing unnecessary constraints; the industry is customer-driven and service-focused.
- The urban sector as a whole is able to meet and balance the competing needs and values of customers and the broader public good, based on an informed and open policy dialogue.

Customer choice can help to achieve all of the above outcomes. By helping to ensure that water users receive the services they want and are prepared to pay for, customer choice can improve efficiency. By facilitating options for alternative products such as recycled water it can also potentially contribute to more environmentally sustainable outcomes (see Figure 2).

Figure 2: How effective customer choice can help to achieve the NWI objectives



Source: Frontier Economics

Choice may also have intrinsic value to customers, some of whom are likely to value some degree of choice (recognising that behavioural economics and experience in other sectors might suggest that many customers may not actively exercise choice even if it were available).

It needs to be recognised, however, that facilitating customer choice is not costless. Some stakeholders have reservations about greater customer choice, particularly for individuals. For example, the Consumer Utilities Advocacy Centre (CUAC) has stated:

> CUAC has some trepidation about reforms that will increase the complexity facing consumers. Increased complexity may be worthwhile or necessary in some circumstances, but government, regulators and businesses should avoid creating complex choices that are out-of-proportion to both the potential benefits of an individual's optimal choice, and to consumers' motivations, knowledge and resources to navigate such a choice.
>
> If greater choice is to be introduced to the water sector, CUAC believes that this should be done carefully, with a relatively limited number of easy-to-compare options that have clear benefits for different types of consumers (CUAC 2011a, p.8).

2.4 Approach to assessing customer choice options

In identifying and assessing opportunities for (individual and collective) customer choice we have sought to:

- describe each customer choice option
- establish the current state of play
- assess the potential benefits and costs of each option
- identify any prerequisites, barriers and limitations to each option.

We then distil and prioritise key reform opportunities to enhance potentially beneficial customer choice options in the urban water sector.

3 Individual customer choice options

3.1 Introduction

Individual customer choice refers to situations where individual customers can choose between alternative offerings. For example, under some circumstances individual customers may be able to choose between alternative billing options, between mains supply and an alternative supply source, and/or between alternative suppliers.

These customer choice options can be seen as sitting along a spectrum where some represent relatively minor adjustments to the status quo, while others would require major changes to the current institutional arrangements. In particular, many customer choice options could be made available by existing incumbent monopoly suppliers whiles others (such as retail competition) would open up choices to include alternative suppliers. It should also be noted that these customer choice options are not necessarily mutually exclusive and that it may be feasible for customers to be able to exercise choice across a number of dimensions.

3.2 Choice over level of consumption of services

3.2.1 Description/definition

The most basic level of choice that can be exercised by a customer even where the service is provided by a monopoly supplier at a uniform price is the quantity of services consumed.

The most obvious example is that households and other urban water customers have at least some control over the amount of water they use which is supplied by their monopoly water supplier. Changes in user behaviour can lead to higher or lower volumes of water being consumed - such as through more frugal use of water or through the installation of water–efficient appliances or a rainwater tank. These choices are likely to be influenced by the price of water applying to metered water consumption, the costs of (and any subsidies provided to) water conservation programs and self-supply alternatives (e.g. private rainwater tanks), and the attitudes and values people hold on matters such as water conservation. Choices may also be constrained by regulation (e.g. water use restrictions imposed during drought and/or permanent water savings rules).

3.2.2 Current state of play

As noted above, a major influence on the decisions customers make on the level of urban water services they consume is the price of those services. The

Commission's 2011 *Review of pricing reform in the Australian water sector* charted the implementation of user-pays pricing in the Australian urban water sector since the mid 1990s. Prior to these reforms, water charges were based largely on property values reflecting equity and affordability objectives. This led to the use of water without regard to its cost of supply, resulting in excessive consumption and to environmental impacts and the need for costly investment in new supply capacity. As noted in the Commission's report, consumption-based charging for water has now been introduced in most metropolitan and regional urban areas in Australia. While consumption-based charging for sewerage services is more difficult because of the absence of measurement and metering, there has also been significant progress towards more cost-reflective charging where this is feasible, most notably load and content-based charges for trade waste services to industrial customers.

A further development in urban water pricing in recent years, particularly as a result of the drought, was the introduction of inclining block tariffs whereby the per unit price of water increased as water consumption reached pre-defined thresholds often seen as reflecting 'excessive' discretionary levels of water use. Post-drought, there has been a general move away from such inclining block tariffs. There has also been a stated desire to improve urban water planning in order to ensure that sufficient capacity is brought on line to avoid the need in the future to impose stringent water use restrictions on urban water users.

A number of those consulted for this review noted that smart water meters were being trialled and that such realtime feedback to customers on their consumption could enhancing the effectiveness of the price signal to users.

As noted above, individual users' decisions on the level of services they consume supplied by their incumbent monopoly water supplier will also be affected by the availability and cost of any conservation or self-supply alternatives. For example, in the household sector water users may be able to reduce their water consumption by installing water efficient appliances, replacing lawns with native gardens, or installing water tanks. Similarly, industrial customers may be able to change their production processes to recycle or otherwise save water, and/or undertake self-treatment or greater pre-treatment of waste before its return to the sewerage network.

In recent years governments and water utilities have sought to promote greater customer choice in these alternatives through education programs, regulation of water efficient practices, and subsidies to alternatives such as rebates for rainwater tanks.

3.2.3 Assessment

In assessing the options for customer choice with regard to the level of services they consume from their urban water supplier, we have focussed on the extent to which these are likely to facilitate the urban water outcomes outlined above.

In this regard, while the move towards consumption-based pricing might be seen as constraining rather than expanding customers' choices, it is really about ensuring that the costs of their choice are felt by users and therefore influence their behaviour. As noted in the Commission's 2011 review of water pricing, the introduction of consumption-based charging has consistently resulted in reductions in per property residential water consumption. These reductions generally indicate more efficient urban water use, given that urban water charges before these reforms provided very weak signals to households about the value of water.

Reflecting the position that users should be faced with the true cost of their decisions, the Commission has previously expressed concern that inclining block tariffs are not consistent with economically efficient water use. It therefore supports the move away from this type of tariff structure.

Similarly, the development of alternative self-supply options to consumption of services provided by an incumbent monopoly water supplier has the potential to enhance the efficient use of water and investment in water infrastructure to ensure security of supply. However, it is important that such options or choices are not artificially distorted by subsidies which do not reflect underlying costs or benefits.

3.3 Choice of tariff offerings

3.3.1 Description/definition

A common feature of the urban water sector is that all customers within a particular customer grouping are typically supplied a uniform service under a common tariff – an arrangement often called 'postage stamp pricing'.

One potential means of offering greater customer choice (without necessarily involving any change to the incumbent supplier) would be to enable customers to choose from a range of tariff alternatives.

This form of customer choice was prominent in the Productivity Commission (2011) report which canvassed introducing consumer choice in tariff offerings. The Productivity Commission contended that multiple service offerings would:

- give customers choice, instead of having an 'essential' level of demand prescribed for them
- provide an opportunity for retailers to more efficiently manage demand as supply changes over time.

Example tariff offerings suggested by the Productivity Commission and others include:

- a simple default fixed price tariff where the volumetric charge would be fixed over the contract period (this could be several years) and customers would have guaranteed supply (without any risk of restrictions) at this (premium) price. This tariff option may be suitable for those customers that prefer stable prices and guaranteed supply, and minimal departure from current pricing arrangements.
- A fully flexible tariff where the volumetric charge would vary from period to period to reflect the marginal opportunity cost of water. This tariff option would be suitable for those that want guaranteed supply, but want to face a variable price that gives them opportunity to change their behaviour in response to price.
- A partially fixed price tariff – this would be a combination of the default and flexible tariff options. This option could suit customers that want price stability over a defined quantity, but are willing to accept price volatility beyond that.
- 'Interruptible' tariffs – customers would contract to restrict consumption during times of scarcity. In return for restricting consumption, customers would receive a discount. This tariff option would suit those customers that do not require guaranteed supply and prefer restrictions during times of scarcity (e.g. industrial customers)
- A 'green tariff' which might be used to offset the energy used in supplying water (Cooper, Crase, & Burton, 2010)
- A 'hardship' tariff with more frequent billing to manage affordability (Yarra Valley Water, 2011) (South East Water, 2011).

A useful way of categorising the various tariff options was recently formulated by the Essential Services Commission of Victoria (ESC), which envisaged customer 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. (Essential Services Commission , 2011)

3.3.2 Current state of play

Although there has been considerable discussion of tariff choices for customers in the public debate, there is little evidence that such options have been implemented in practice.

One water business that has actively explored optional tariff structures is Yarra Valley Water (see Box 2).

Box 2: Trial of optional tariffs by Yarra Valley Water

In its Water Plan 2013/14 to 2017/18, Yarra Valley Water noted that its market research had indicated that many customers value better control over water and sewerage bills and simplicity in charges. Yarra Valley Water also noted that some customers had indicated a preference for tariff choice, although not all would exercise this choice. It reported stakeholders' views that much would depend on the options and their context. Yarra Valley Water indicated that during its consultations, many non-residential customers had expressed a desire for price certainty to help them prepare forward budgets for water and wastewater costs and make planning decisions, indicating concern about prices that varied from year-to-year. (Yarra Valley Water, 2012)

Recognising that offering optional tariffs was 'new ground' for water utilities, and there was therefore little experience to guide it in how customers would react to tariff options, Yarra Valley Water is undertaking a trial of a 100% variable tariff for a limited number of customers to commence in 2013-14. It also proposed to explore an optional tariff for business customers that set a customer's prices in line with the base price path, subject to conditions that the customer is tied for three years and that demand may not increase by more than 5% without agreement.

Source: (Yarra Valley Water, 2012)

The Queensland Department of Energy and Water Supply (2012) reports that since 2011 the Townsville City Council has allowed residential customers to choose how they were charged for water:

- The Standard Plan provides a fixed allocation of water each year with volumetric charges for any excess water consumed.
- The Water Watchers Plan where customers pay an annual service charge and a volumetric charge for all the water they consume.

It notes that the Water Watchers Plan has proven to be a more affordable option for customers who have a supplementary water supply or use a small volume of water (Queensland Department of Energy and Water Supply 2013).

3.3.3 Assessment

Allowing customers to choose from a menu of tariffs would represent a significant departure from the current 'postage stamp' pricing policy adopted by urban water businesses in Australia. Indeed, the imposition of such uniform pricing polices represents a major barrier to the development of alternative tariff options for customers. Similarly, where economic regulators take a prescriptive

approach to regulating tariffs (e.g. IPART sets individual tariffs), water businesses may have very limited or no opportunity to consider optional tariffs.

A key theme of the public policy discussions of customer choice in urban water tariffs is that implementing such choice may require a number of complementary reforms or prerequisites to be in place. For example, the Productivity Commission saw the need for customer choice in retail prices to operate within the context of:

- providing a default 'vanilla' two-part tariff, with a single volumetric price and fixed service charge set for three to five years, and with guaranteed supply
- policy guidelines determined by governments
- normal application of competition and consumer protection laws
- there being appropriate consumer education programs
- support being provided to smaller utilities to develop tariff offerings appropriate to their customers. (Productivity Commission, 2011)

As noted by Yarra Valley Water in its response to the Productivity Commission issues paper:

> There has been substantial debate across Australia about different tariff regimes and the possibility of customer choice in these. There are a number of considerations in moving to a regime where more choice is provided. They are part regulatory and part structural and currently result in the sector applying one-size-fits-all to pricing, service and innovation. These considerations include powers of pricing regulators to effectively dictate tariff policy and the expectation by many customers of equity in delivery of water and sewerage services including common tariff structures. (Yarra Valley Water, 2011, p. 7)

While traditionally economic regulators have tended to impose uniform pricing structures for urban water businesses in Australia, some appear to be now countenancing alternative tariffs from which customers could exercise choice. For example, the ESC has canvassed possible approaches to offering customer choice. While it was generally supportive of innovations in customer choice over tariffs, it suggested that:

- If a water business were to move away from offering a single regulated tariff in each class towards offering choice to customers, it should offer a standard default tariff which should apply to all customers in a class unless the customer chose otherwise. 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.
- 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). (Essential Services Commission , 2011)

The ESC also noted that tariff options under the risk-allocation choice model appeared to require its involvement in approving them given that they would have implications for a water business's prices and revenue. Given this, it would need to be satisfied that the outcomes of such choice would fit within the form of control and the allowed revenue.

As noted above, the ESC also suggested that any tariff option is reasonably reflective of the efficient costs of providing the service including differences in risks associated with that service. This mirrors the Productivity Commission's statement that all such alternative tariff options should take into account the opportunity cost of supplying each service.

Another prerequisite for choice in tariff options identified by a number of commentators is the need for adequate customer protection and information. The ESC commented that:

> 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.(Essential Services Commission , 2011, p. 39)

Similar views have been expressed in commentaries by consumer advocacy groups. For example, CUAC have stated that:

> Should more choices be made available to water consumers, this must also be accompanied by consumer information and education to support decision-making. The costs of developing and providing effective consumer information and education should be included in the overall analysis of the case for increased choice. (CUAC, 2011, p. 9)

In summary, offering a choice of tariff structures to customers would appear to have the potential to improve the value proposition to customers by better reflecting their preferences and in particular their attitudes to risk.

However, this assessment is subject to several important caveats:

- that individual customers have sufficient information that they can make informed choices
- that the tariffs offered to customers are broadly cost-reflective so that the choice by some customers to adopt a different tariff does not result in them being cross-subsidised by the remainder of the customer base.

In this way, it would seem possible to allow businesses to develop innovative tariff structures whilst avoiding the policy concerns that might otherwise be associated with a 'free for all'.

3.4 Choice of service standard/price offerings

3.4.1 Description/definition

Another potential form of individual customer choice is to allow customers to choose from alternative service offerings from their supplier. These might include:

- pricing for level of security
- billing and customer service options
- value-added services
- differentiated services.

Pricing for level of security

One of the most frequently cited examples is the possibility of offering different customers a different level of security of supply, at a price reflecting the associated costs.

Billing and customer service options

While the physical water supply or sewerage collection and disposal services provided to end customers may be not capable of being differentiated between customers, there may be scope to offer different retail or customer service options to individual customers. Examples might include different billing arrangements.

Value-added services

There may also be opportunities for water suppliers to offer complementary services to their customers. Examples might include emergency plumbing, and water efficiency management services to industrial customers.

Differentiated services

In some cases there may be scope to offer customers with specific service needs (e.g. large industrial customers) a differentiated service reflecting their particular needs and the costs associated with meeting them.

3.4.2 Current state of play

Pricing for level of security

To date there is no evidence of an urban water supplier offering a differing level of security product for a different price. WSAA has however stated that pricing around water security is something water utilities are investigating (WSAA, 2012).

Billing and customer service options

In recent years there does appear to be a greater range of billing and customer service options emerging as some urban water businesses seek to take a greater customer focus. One notable area relates to different billing arrangements and on-line management of customers' water accounts (see Box 3).

Box 3: My Water – Water Corporation

The Water Corporation has introduced a new online self-service website called My Water. It allows customers to:

- receive notifications of their bills electronically and pay them online
- view their account balance and water use details
- update their personal details
- request an extension of their due date
- view their bill online
- view a property map to obtain details of meter location and service availability
- set up and manage direct debits from their bank account or credit card. Customers will not incur a transaction fee if they set up direct debit payments using their credit card in My Water.

The Water Corporation is also introducing two-monthly billing from 1 July 2013 to make payment more manageable for customers by spreading water use and service charges across six bills, rather than large accounts distributed less often.

Source: Water Corporation

It has also been reported (Queensland DEWS 2012) that Western Water, a Victorian service provider, is identifying ways for the customer to have more control over their water service through options such as:

- a self-service website where customers can view their water usage, a breakdown of water charges and billing history
- paperless billing so that customers can choose how their bill is delivered and register for direct debit
- a self-read metering system that allows customers to self-monitor and report on their meter readings for increased frequency of billing and smarter use of water.

Value-added services

There is also some evidence of water utilities offering customers a range of complementary services. For example, ACTEW offer their customers water and sewerage consultancy services detailed water and waste water audits, data logging and monitoring, water and waste planning, project management services, and building management systems. Similarly, City West Water offers a comprehensive resource efficiency program for business customers to help them improve water, energy and materials efficiency.

Box 4: City West Water – Water Efficiency Programs

City West Water provides face to face assistance and tools to customers to identify resource efficiency opportunities, investigate and overcome barriers to implementation, assist with project development and co-funding opportunities and provide an expert service providers panel. It has assisted customers to implement over 100 water efficiency projects including:

- VRC groundwater desalination and ASR
- Docklands Stadium – rainwater harvesting and reuse
- Moonee Valley Racecourse stormwater harvesting
- Encore Tissue trade waste reuse in process
- Point Cook Secondary College – connection to recycled water main to allow greening of oval and gardens
- Tollman Cleaner production project – water, waste, energy and productivity
- Oxford Cold Stores – rainwater harvesting and reuse in Cooling towers
- Business Showerhead and PRSV exchanges
- National Water Efficiency Benchmarking (NWEB) website and portal.

The Water Corporation is also introducing two-monthly billing from 1 July 2013 to make payment more manageable for customers by spreading water use and service charges across six bills, rather than large accounts distributed less often.

Source: City West Water

Differentiated services

The scope for offering differentiated or non-standard services appears to be particularly relevant for larger customers. For example, the Water Corporation has entered into a number of supply-by-agreements with major water customers (greater than 49kL per day) in country areas and for non-standard services such as recycled water schemes. These Special Agreements define the terms and conditions of the supply arrangement and replace the standard service and by-law charges. There are currently around 100 agreements with an estimated revenue in 2012/13 of $70 million.

A number of those consulted for this review also noted that it was common for water utilities to enter into specific negotiations with large industrial customers in regard to trade waste services.

3.4.3 Assessment

Tailored price/service offerings reflecting the preferences of individual customers clearly has the potential to increase the value of the services being provided to water customers.

For example, offering a guaranteed supply of water may be particularly valuable to some customers who may suffer significant losses when restrictions are imposed at times of low water availability – for example households with gardens, nurseries or golf courses. Rather than imposing uniform restrictions, offering greater reliability (at greater cost) would allow users to signal their willingness to pay for different levels of security of supply. This would mean that the demand reductions needed to address short-term water shortages would be concentrated more on uses on which users themselves placed relatively low value, and less on uses that are valued highly by at least some users.

A number of those consulted for this review suggested that there may be little benefit in this tariff options in the future as the long-term planning for most urban water systems now sought to avoid them if at all possible. They also cited a number of practical issues with enforcement.

Other price/service offerings not related to how water is allocated at times of scarcity (e.g. on-line billing) are likely to be less controversial.

Some commentators, particularly customer representative groups, have suggested that the scope for benefits from offering price/service options to customers may be limited. CUAC has expressed this view in a number of articles and public forums. For example, CUAC contended that:

> Most of the benefits that are expected to flow from choice can only result if a substantial number of consumers take the opportunity to make active, informed choices in their best interests. Because of this, the likely consumer response to diversified offerings is a crucial issue.

> Should more choice be introduced, CUAC expects that the proportion of consumers actively choosing between tariffs and service offerings will be fairly low. Experimental research on consumer decision-making behaviour shows that consumers tend to stick with status quo options, particularly as the complexity of choice increases.
>
> Experience in other sectors has tended to support the findings from experimental studies. For example, with the introduction of Super Choice in 2005, it was expected that many consumers would take the opportunity to change their superannuation fund. In fact, the actual switching rate was low.
>
> Water is a relatively homogeneous service. While low-income households can struggle to pay water bills, for many, the cost of water is comparatively small proportion of total income. Hence, the tendency to avoid decision making by remaining with the default option is likely to be even greater in the water sector. Policymakers must take the likely level of active decision-making into account when weighing up the potential costs and benefits of increased choice. (CUAC, 2011, p. 9).

In similar terms, the Consumers' Federation of Australia has commented that:

> While choice can have benefits, it may also bring with it the kind of complexity consumers already face in energy and telecommunications. To date, insufficient work has been done to determine whether consumers actually want this type of reform. This is critical because unless consumers actively embrace choice in water products, services and tariffs, the hypothesised benefits of this reform will not materialise (Consumers Federation of Australia 2011).

CUAC have reported little interest in customer choice:

> At present, there is a lack of evidence to show that water consumers want increased choice. In this regard, it is worth noting that the current push for greater customer choice has not originated with the community or consumer groups, but appears to be driven by water businesses, policymakers and bodies such as the National Water Commission. In our liaison and consultation, we have not found increased choice to be a priority (or indeed, a consideration) expressed by community stakeholders, who tend instead to focus on issues of fairness, distributional impacts, and the appropriateness and transparency of governments' water resource decision-making (CUAC 2011b).

While it may well be true that many customers may not have the interest or motivation to choose between alternative service offerings, there may nevertheless be some customers to whom such choices would be valuable. The existence of choice would therefore strengthen the incentive for businesses to offer better services more efficiently. In particular, there would appear to be considerable scope for greater negotiation with large customers about their price/service offerings. This in turn may require adoption of a negotiate/arbitrate regulatory model for some services, whereby prices can be agreed between the parties subject to some broad regulatory principles.

3.5 Choice of product

3.5.1 Description/definition

Another form of choice that may be able to be offered to individual customers by the incumbent water supplier (or by an alternative supplier as discussed below) is an alternative product or source of supply. In particular, customers may have an option to take recycled water as an alternative to or partial substitute for potable water supply.

While in some cases the supply of recycled water in new developments is mandated, in other cases individual customers (e.g. large industrial users, golf courses) are presented with a choice between the traditional supply (e.g. potable water) and a recycled water alternative.

3.5.2 Current state of play

In recent years there has been a significant increase in the supply of recycled water as an alternative to potable water for some customers. Recycled water supplied increased from under 150 GL in 2005–06 to around 250 GL in 2009–10.

As noted by WSAA, the volume and percentage of recycled water are affected by a number of factors, including the availability of potable water, the size of the utility, its proximity to potential customers (such as irrigators, major industrial customers and recreational facilities) and government policy. Smaller regional centres often recycle a greater proportion of effluent than larger metropolitan areas because discharge to inland rivers and streams often requires higher treatment, making recycling more cost-effective. Regional towns often have greater access to willing buyers, such as agricultural businesses, and there are fewer alternative water supply options inland than on the coast.

While in some cases individual customers may have a choice between a potable supply and a recycled water alternative, in many cases the choice is one at the time a new development is established – so that the decision lies with the developer rather than with individual households (although in some cases a recycled led water supply or third pipe scheme may be mandated or effectively mandated as a condition of meeting WSUS obligations).

There are also other instances of choice for sewerage collection and disposal. An example cited in our consultation was a small town in Tasmania where even though the council had the power to levy customers within 30 metres of a new sewer system, customers were given the choice of connecting to it rather than having to replace failing septic tank systems.

3.5.3 Assessment

Recycled water and other alternatives to traditional potable water supply have a key role to play in ensuring the urban water systems are resilient and sustainable.

As noted by the Commission in its Future Directions report, a successful Australian urban water sector would be one where IWM and alternative water sources, including decentralised and potentially privately owned solutions that are 'fit for purpose' are accepted and trusted by the public and where regulation does not unnecessarily impede innovative IWM solutions. However, it also stated that such options should stand or fall on their own merits.

From the customer's point of view, the choice between a traditional supply and a new alternative will be driven by their relative financial costs and other costs and benefits of the products. For example, golf courses, nurseries and other customers who require a guaranteed supply of water may particularly value recycled water. On the other hand, recycled water may also create some risks for customers (e.g. industrial customers) in ensuring that its quality is suitable for their production processes.

A key issue is how such alternative sources of supply should be priced to the customers that are prepared to take them. A common approach is to peg the price of recycled water at a fixed proportion of the price of potable water. While providing a discount to recycled water customers may encourage them to take the alternative product, unless this reflects genuine broader benefits (e.g. avoided costs of augmenting the potable water supply system) this will not necessarily contribute to the overall policy objectives for urban water. If users can only be convinced to take recycled water by being heavily subsidised by other customers, then the overall costs of meeting a city's water needs will increase.

3.6 Choice of supplier

3.6.1 Description/definition

Arguably the most direct form of customer choice is where customers can choose to switch from their current supplier to a new supplier.

This form of customer choice - known as 'retail competition' - has been implemented in a number of utility industries in Australia and elsewhere, most notably in electricity, gas and telecommunications. Typically, the introduction of retail competition in previously vertically integrated monopoly utilities involves structural reform to enable competition in those parts of the supply chain seen as contestable (generally retail services and bulk supply), with the natural monopoly transmission and distribution networks being subject to third party access under regulated terms and conditions.

Retail competition allows end customers to choose their retail supplier. Competition may be extended to all customers (full retail competition) or smaller groups of customers (e.g. only large users if they are likely to reap most of the benefits of retail competition).

Full retail competition (to all customers including households) has been successfully introduced in the gas and electricity industries in many jurisdictions, starting with the largest customers and moving to the smallest customers.

While allowing for competition for larger customers was relatively straightforward, significant effort was required in the gas and electricity industries to develop the regulatory framework and systems to support retail competition for all customers and ongoing expenditure and effort is required to monitor compliance with these arrangements.

3.6.2 Current state of play

Retail competition has generally not been implemented in the urban water sector. It has, however, been introduced for non-residential customers in the U.K. While this has not necessarily involved a large number of customers switching their supplier, it does appear to have resulted in better price/service offerings being made available by the incumbent suppliers. Some key aspects of the U.K. experience are presented in Box 5 below (see Attachment D for a more detailed description).

One recent critique (Deloitte 2011) questioned whether proposals for extending retail competition in the U.K. water sector would deliver significant benefits on the grounds that they were not focused on well identified and significant cost efficiencies. Deloitte recognised that service quality may improve with the increased focus that dedicated retail businesses may provide their customers. However, it suggested that given existing consumer satisfaction survey results and the extent of possible service improvements achievable under the existing regulatory regimes (e.g. the new Service Incentive Mechanism), the proposed introduction of retail competition should have a well-defined prospect of delivering price reductions before it could be deemed appropriate.

Box 5: Retail competition in the U.K. water sector

Retail competition for certain non-residential customers was introduced in Scotland in 2008 and there have been recent moves to extend this into other parts of the U.K.

The competitive retail market for non-household water and wastewater customers opened in Scotland in 2008. Scottish Water was required to transfer its retail service activities into a new company 'Business Stream' which now competes on an equal footing with a number of new entrant licensed retail service suppliers. These new suppliers buy wholesale services (the physical supply of water and removal of sewage) from Scottish Water. An independent organisation—the Central Market Agency—calculates wholesale bills and registers switches of supplier by customers. The Water Industry Commission ensured that no customer was worse off as a result of competition, by making it a licence condition that all new retailers must offer a default level of service and tariff to any customer, anywhere in Scotland. At present there are four new entrants, including two owned by English water companies.

While it appears that the incumbent Business Stream still holds the major part of the market and that relatively few customers have switched suppliers, many customers had tendered their water supply contract and negotiated price and service improvements from Business Stream. An independent review found that competitive pressures will drive down charges and there will also be lower levels of water use as customers use water more efficiently. It forecast savings for customers over the next decade of £110m.

In England and Wales, a framework for a limited retail market for water, enabling very large water customers to switch suppliers and new players to enter the market has been in place since 2003. However, this did not lead to sustainable levels of competition and by 2011 only one customer had changed suppliers. The approach to pricing third party access was widely viewed as a key inhibitor of new entry.

Following the introduction of competition in Scotland, the UK undertook a series of independent reviews to consider the benefits of competition for both England and Wales. In particular, in 2009 the Cave Review recommended a staged approach to competition as a means of improving servicers to customers. It recommended that an initial 5 megalitre threshold for non-household customers should be abolished but that further assessments should be made before extending competition to households. It found that at that point, the net present value of such a reform would likely be negative, reflecting the set-up and ongoing costs associated with establishing and overseeing such a market.

In December 2011, the UK government published its Water White Paper, providing a road map for reform in the water sector in England. In seeking to increase the scope for competition in the water sector, the UK Government stated that it wished to follow an 'evolutionary approach to reform [with] deregulatory changes to make the existing competition regime work more effectively'. Many of the proposed changes reflected the recommendations of the Cave Review, in particular those aimed at widening the scope for retail competition for non-domestic customers, as well as for certain forms of entry for new market participants upstream. These include creating a separate water supply licence for sewerage retail services; unbundling the water supply licence to allow scope for upstream-only entry; replacing the cost principle for access pricing; reducing the threshold for customer eligibility to switch retailer supplier under the water supply licensing regime; streamlining the inset regime; and reforming the special mergers regime. Also, as per the Cave Review, the government did not see a case in the foreseeable future for extending retail competition to households.

Potential benefits for customers and the economy from competition include improved customer services and the development of new services, and ability for multi-site customers to contract with one or two national retail services suppliers, reducing numbers of bills and administration costs, and improving comparability of consumption information. For example, reducing one customer's 4,000 paper bills each year to a national electronic bill could save perhaps £80,000-£200,000 for that customer alone.

Source: Frontier Economics

Deloitte suggested that the case for retail competition needed to be more closely related to the key objectives for water reform and needed to be further developed by:

- identifying in an overall reform packages how downstream competition relates to an upstream competition model
- assessing the feasibility and potential impact of consolidation in downstream retailing activities on the achievement of efficiencies and on competitive conditions
- assessing the likelihood of 'spillover' benefits being achieved and the regulatory mechanisms whereby these – if achieved- are passed through to consumers
- determining in the context of implementation costs and prospective efficiency gains, what a potential price path is for consumers.

Deloitte considered this important because introducing retail competition will be a costly and time-consuming process and as such could exclude other initiatives that might otherwise lead to improved efficiencies.

To date in Australia no jurisdiction has established retail competition for urban water services, although moves towards increasing competition have been initiated in a number of jurisdictions.

NSW

The most significant reform to allow choice of supplier has occurred in NSW under the *Water Industry Competition Act* (WICA), although several other States have also flagged similar reforms.

The WICA, which supports the emergence of new suppliers and technologies for the provision of water and wastewater services, came into effect in 2008. The WICA establishes an access regime for the storage and transportation of water and sewage using existing significant water and sewerage networks in the areas covered by Sydney and Hunter Water — the first access regime developed specifically for the water industry in Australia.

At the same time, a new regulatory framework was introduced to ensure appropriate regulatory obligations are placed on new suppliers to protect consumers and the public interest in relation to a range of factors, including: security of supply; ensuring water quality; protection of public health; environmental matters; and allocating responsibilities for managing emergencies and national security matters.(IPART, 2008).

Box 6: The Water Industry Competition Act (WICA) in NSW

The *Water Industry Competition Act 2006* (WIC Act) creates a framework to facilitate contestability and competition in the water sector, to harness the innovation and efficiency potential of the private sector and encourage the development of recycled water infrastructure.

The WIC Act contains third party access provisions; a licensing framework that enables proponents to construct, operate and maintain water industry infrastructure and provide retail services to customers; and provision for the Independent Pricing and Regulatory Tribunal to arbitrate in sewer mining disputes.

Nineteen licences under the Act have been granted, across nine schemes. These include industrial water recycling schemes, recycling schemes for high rise buildings in the inner city, villages on the urban fringe and the desalination plant. Schemes involving potable water, recycled water and wastewater have been licensed.

The WIC Act is currently being reviewed with reform proposals being developed to streamline WIC Act approvals and integrate with the development assessment process reforms.

Source: NSW Department of Planning (2013

A review of the WICA is now being undertaken by the NSW Government, which has released a Discussion Paper (Department of Finance and Services, 2012). The Discussion Paper notes that since the WICA's commencement, only 19 licences have been issued to date, for nine schemes.

Most licences to date (with the exception of the desalination plant) are for schemes that are small and pose no significant competition to the public utilities. In its 2011 submission to the Productivity Commission's draft report on the Urban Water Sector, IPART stated that:

> the very nature of the industry means that competition is likely to be limited. The characteristics of natural monopolies will remain and hence a deep competitive market is unlikely to emerge. The experience to date of competition reform in NSW is that the majority of new entrants are small-scale, niche operators rather than direct challengers to the market power of the monopolies. (IPART, 2011, p. 7)

South Australia

In South Australia, the *Water for Good* Plan released in 2010 noted that:

> Reforms to enhance markets and foster competition in other utility industries have provided better incentives for efficient supply and demand. ..Market-based approaches are being considered in the water sector as an alternative to the exclusive reliance on monopolies providing all or most services. Market reform has the potential to create opportunities for new and diverse supply sources and innovation in water supply.(Office for Water Security, 2010, p. 126)

One of the actions proposed in the *Water for Good* Plan was to:

> Explore the merits of innovative and competitive arrangements, in the medium term, which could allow for competition in the supply of bulk water, recycled water and retail services to customers, while retaining Government ownership of the public water supply infrastructure. (Office for Water Security, 2010, p. 140)

More specifically, the Plan proposed to provide for new service providers to enter segments of the water markets subject to obtaining a licence to operate, and flagged the development of a State–based third party access regime to allow potential entrants to gain access to monopoly facilities in order to be able to provide services.

The South Australian *Water Industry Act 2012* was adopted by Parliament on 5 April 2012. It established the basis for developing a state-based third party access regime and ensuring excellent service and fair treatment through independent and transparent customer consultation, complaints processes and the establishment of a Customer Advocacy and Advisory Council.

The South Australian Department of Treasury and Finance released a discussion paper in February 2013 examining the options for an access regime to provide a right to negotiate access to water and sewerage infrastructure services: namely voluntary arrangements versus legislatively mandated arrangements. A draft Bill is expected to be released by mid 2013 for further public consultation. The *Water Industry Act 2012* requires that the Minister must use his or her best endeavours to introduce a Bill into Parliament to provide for a third party access regime to water and sewerage infrastructure services by September 2013.

Victoria

The Victorian Competition and Efficiency Commission (VCEC) undertook a review of the Melbourne metropolitan water sector in 2008.

Recognising the increasing probability that, with a substantially rising price of water, new sources of supply, and an increasingly interconnected pipeline system, a third party will seek access with respect to parts of the network, VCEC recommended that the Government develop an access regime for water and wastewater infrastructure services. It considered that such a state-based regime would be capable of providing a framework for considering the net benefits of specific access proposals, greater certainty as to the scope of its application, and potentially simpler administrative arrangements by which access may be obtained.

VCEC did not however advocate implementation of full retail competition for the water sector:

> The Commission believes that the potential for development of full retail contestability in the water sector is limited in the short to medium term because of the range of implementation issues that need to be resolved, including determining how new entrants purchase rights to water sources and any impediments to entry created by access arrangements to pipeline capacity.
>
> Moreover, a comprehensive cost-benefit analysis would be required, given the costs associated with implementing new billing and metering systems. Large customers are more likely than small customers to benefit from any deregulation of this type, since the incremental transaction costs relative to the value of water used are likely to be relatively low for them (Victorian Competition and Efficiency Commission, 2008, p. 193).

More recently, the Living Melbourne, Living Victoria Implementation Plan considered that greater participation by new entrants should be facilitated and developed within a regulatory framework and licence arrangements that protect customers from a service delivery, public health and environmental perspective. It suggested that the formation of a customer protection licensing framework must be developed in parallel with the introduction of a third party access regime for existing and new water service providers. It proposed a two-stage process to implementing third party access, beginning with a non-statutory regime where the assets to be declared are approved by the Minister for Water. Once implementation issue are better understood (particularly the interaction with the customer protection licensing framework, improved rights arrangements for alternative sources and inter-retailer competition), the Office of Living Victoria should make a recommendation to the Minister on the design of a statutory third-party access regime. (Living Victoria Ministerial Advisory Council, 2012).

To date, however, no third party access regime has been implemented in Victoria.

Western Australia

In Western Australia, the Economic Regulation Authority (ERA) undertook a review of the scope for competition in 2008. It recommended that a simple State-based access regime be developed, noting that while access can be sought under the national access regime, this can be a costly and time-consuming process. It suggested that the third party access regime being introduced in New South Wales provides a good model on which to base a Western Australian regime.

To date, no State-based access regime has been introduced in Western Australia. The ERA does however oversee a licensing regime whereby all organisations providing water, sewerage, drainage or irrigation services in Western Australia (including the Water Corporation) must obtain a licence from the ERA, or an exemption from the licence requirement by the Minister.

The ERA also found that the introduction of a fully contestable retail market would be premature at that time. Instead, it proposed that applications from potential residential retail service providers which may arise from a third party access regime should be considered on a case-by-case basis, with the terms and conditions subject to approval. It considered that terms and conditions associated with the provision of retail services to non-residential customers should be the subject of commercial negotiations.

Queensland

In south east Queensland there have been significant institutional changes in recent years associated with the development of a regional water grid. The Water Grid connected major bulk water sources (including dams, desalination and a recycling plant) and presented opportunities for improved co-ordination of the expanded water supply system as well as for structural and institutional reforms

that could potentially provide for competition in the contestable parts of the supply chain. The Queensland Water Commission recommended structural reforms involving the creation of an independent Water Grid Manager, a separate bulk supply entity, a single bulk transport entity, a single water distribution and sewage collection entity, and a consolidation of the existing local government water retailers. It also countenanced the possibility of a third party access regime for water and wastewater treatment, bulk transport and distribution networks.

The arrangement adopted by the Government at the time broadly followed the Commission's model, with some variations (e.g. the separation of bulk supply into two entities (one for dams and groundwater, and one for manufactured water). Three retail businesses were formed covering the Gold Coast, Brisbane, and Sunshine Coast regions. It did not, however, implement an access regime or actively pursue a competitive model, with a focus on promoting more co-ordinated operation of the Grid to more optimally match supply and demand. Pro-competitive reforms, including the prospect of retail competition, were seen as longer-term possibilities.

Subsequently, there have been further institutional changes, including the disaggregation of some of the retail businesses and their return to individual local government control. Pro-competitive reforms including an access regime does not appear to be on the current policy agenda.

Other jurisdictions

In Tasmania there have also been significant institutional reforms in recent years under the *Water and Sewerage Industry Act 2008* with a primary objective being to improve water quality standards across the State. Key reforms included the establishment of new entities (consolidating the previous local government water suppliers into three regional entities and the recent consolidation of these into one statewide entity. Independent economic regulation has also been introduced. The economic regulator also oversees a licensing regime which requires anyone that owns or operates water or sewerage infrastructure to hold a licence (with some exemptions when the risk of a significant service failure is low and/or when the consequences of service failure would be considered by the broader community not to be significant. This latter provision allows for new entrants to emerge without the burden of economic regulation.

The Australian Capital Territory and the Northern Territory are both served by vertically-integrated monopoly suppliers. Moves towards competition have not been proposed.

In the A.C.T. the Independent Competition and Regulatory Commission (ICRC) oversees a licensing regime for Sewerage and Water Supply Services. ACTEW is the only licensee and to date no other operators have sought a licence.

A licensing regime in the NT is overseen by the Utilities Commission. While a licence is required for the provision of water supply and sewerage supply services within an area gazetted as a 'water or sewerage supply licence areas', the Commission may only grant a single licence for each of the relevant services.

Summary

In summary, while there have been some moves towards facilitating new entrants via third party access and associated licensing regimes, to date there has been little appetite for full retail competition in urban water services in Australia.

3.6.3 Assessment

Allowing customers to choose their supplier or even the threat of a new supplier can put pressure on an incumbent to improve services to customers.

This has been demonstrated by experience in the U.K. where non-residential customers with significant water demands have been able to extract better services and prices from their supplier. These customers are likely to have strong incentives and ability to exercise such choices.

However, the case for extending full retail competition to all urban water users has not accepted by any major review to date, both in Australia and the U.K. There are clearly widespread reservations as to whether the benefits that have accrued from competitive reforms in the electricity and gas industries would necessarily transfer to urban water. In particular, the benefits of introducing full retail competition for all customers without also deregulating the bulk water market may be limited.

Nevertheless, opening up the scope for new entrants to offer alternative supplies on an opportunistic basis would appear to have considerable merit. In particular, establishing State-based third party access regimes along the lines of that established under the NSW WICA would open up opportunities for those sufficiently motivated to exercise such a choice. While a measured approach to introducing direct competition in the sector would seem appropriate, progress towards this appears to have been very slow.

3.7 Choice of supply sources/service options for new developments

3.7.1 Description/definition

Another potential form of customer choice in the urban water industry is that of being able to choose from a range of alternative means of servicing a development, particularly a greenfields development.

This involves viewing developers and local/state governments as 'customers' of the urban water sector to whom water businesses can potentially offer a broader range of services, including environmental outcomes and urban amenity values. This may entail water businesses being able to offer a 'choice' between traditional supply solutions and integrated water cycle management (IWCM) approaches. In some cases it may entail developers installing their own water and sewerage schemes to service a development.

In this regard the 'choice' is not one where end customers can exercise a choice in the type of supply they receive on an ongoing basis, rather the choice is at the stage when infrastructure is installed.

3.7.2 Current state of play

There have been a number of examples across several jurisdictions where developers or other parties have sought to have an alternative supply to the traditional centralised solution offered by the incumbent water utility.

Box 7: The Water Factory Company

The Water Factory Company (WFC) is an Australian owned private water utility licensed under the NSW WICA to provide recycled water and wastewater services to residential and commercial homes in high rise and land release developments.

WFC designs, creates, constructs and operates private sustainable water networks in communities with a minimum of 500 homes or apartments in both high rise and land release developments. Its networks include Central Park Water, Discovery Point Water, Wyee Water and Pitt Town Water. In these communities, WFC wholly owns each water utility.

WFC provides alternative servicing solutions to Sydney Water, Hunter Water and local council and markets its services as being more affordable and more sustainable than these competitors. It claims that developers can also speed up land release by as much as 12 months due to more timely construction of a sustainable water network than a public water infrastructure supplier. Developers can benefit through reduced lead-in infrastructure costs, earlier property release and therefore faster property sales, and higher property values as a result of a sustainable water solution. WFC also claim that its model can remove risk to development staging through more economically affordable and environmentally sensitive development and better value to customers, and also remove the need to pay for or negotiate the installation of centralised water infrastructure across multiple neighbouring properties.

For homeowners, a key benefit claimed by the WFC is that its more sustainable solutions enhance property values and provide customers with a secure and sustainable water source unaffected by drought. By avoiding the need for a rainwater tank, customers save between $6,000 and $10,000 in avoided upfront cost. In addition, households in these developments use 40 to 60 per cent less drinking water, get more relevant information about their water usage, and are billed monthly not quarterly.

Source: The Water Factory website

There also appears to have been some moves to facilitate this form of competition at a policy level. For example, in Victoria the Living Melbourne, Living Victoria Implementation Plan recommended that retail water businesses be allowed and encouraged to compete across their geographic boundaries to

provide services to new developments and major re-developments. It did not propose, however, that competition extend to existing retail residential customers (Living Victoria Ministerial Advisory Council, 2012, p. 64). It also stated that:

> Allowing greater opportunity for new entrants to develop and commercialise new and innovative sources of water has the potential to improve system security and resilience, while lowering total water supply costs. Improved access can encourage new firms and existing water businesses to provide new services using existing water and sewerage infrastructure. These new services could stimulate innovation and technological development in existing water services and integrated water cycle management. The Council considers that, initially at least, these opportunities are greatest in Greenfield areas and for decentralised water projects (Living Victoria Ministerial Advisory Council, 2012, p. 65).

Allowing competition in the servicing of new developments is also a key theme of the recent NSW Department of Planning White Paper. This paper proposes more contestability in the delivery of infrastructure in greenfield and infill growth areas (Department of Planning , 2013).

3.7.3 Assessment

Given the significant prospective capital costs of servicing new developments, particularly at the urban fringe, the scope for major benefits from ensuring that these investments are efficient and sustainable is high. This suggests that facilitating choice may be particularly valuable in this area. During our consultations, a number of parties suggested that developers were often frustrated with the responses put forward by water utilities and were keen to adopt their own solutions.

Some of those consulted suggested that the large utilities were better at running the large networks and did not have the resources or interest to pursue localised schemes. For their part, a number of water utilities intimated that they were not opposed to developers pursuing such schemes, but that in many cases the projects were not economic.

Pursuit of localised solutions by developers or other dedicated providers could in some cases represent a lower-cost solution that connection to the integrated network. A number of parties consulted for this project noted that decentralised solutions were particularly suited for greenfield developments located a long way from centralised water supply systems or sewerage treatment plants.

This again highlights the merits in progressing the development of third party access and licensing regimes in all jurisdictions.

4 Collective customer choice options

4.1 Introduction

A challenge in the urban water sector and other utility sectors is that often a single network supplies all customers which means it will not always be possible for a provider to offer individual customers choice through a differentiated product.

However, it may be possible to collectively offer choice to all customers on a network. In particular, there is likely to be a trade-off between different levels of service that a supplier can provide to its customers and cost. A choice must be made on behalf of customers as a group between the costs and benefits of different levels of service.

The discussion in this chapter:

- identifies key aspects of cost/service trade-offs which may be subject to collective choice and the potential benefits from optimising these trade-offs
- examines mechanisms for ascertaining and aggregating customers' preferences and valuations and the extent to which they are being adopted in the urban water sector
- assesses roles and responsibilities for engaging with customers to ascertain preferences and make collective choice decisions.

4.2 Potential benefits of optimising collective choice trade-offs

In most industries, the level of service provided to customers reflects what customers want and are willing to pay for. If it doesn't, customers will turn to other providers that do provide the price/service offerings customers want.

In the urban water sector, the level of services and associated prices is not driven by competitive pressures in the market. Rather, standards are set through various regulatory and policy processes. Typically, this entails minimum standards being set with which water businesses have to comply. Some of these minimum standards will reflect those seen as necessary to protect public health or the environment. Others will reflect standards of service (e.g. frequency of supply interruptions) based on historical levels of service or what is seen as a minimum acceptable standard by regulators and/or politicians and embodied in licence conditions.

There are a number of aspects of service standards where there may be a trade-off with cost and/or when customers may have preferences for different levels of service. These concerns/preferences may extend beyond the end services

delivered to customers to aspects of how the supply of water or sewerage impacts on the broader community. These aspects of service standards include:

- Customer service standards (distribution/retail) such as frequency and duration of planned and unplanned water supply interruptions; sewer blockages and spills; water quality and pressure; customer query/complaint response times.
- Level of security of supply: the level of security of supply may be a major driver of the level of investment in an urban water system and thus the costs to be recovered from customers.
- Level of environmental impact/sustainability: water customers and the broader community may attach significant value to protecting the environment.
- Choice of supply options: customer may have preferences for particular types of supply options (e.g. recycled water sources versus dams or desalination plants).

Optimising the trade-offs between cost and service standards is critical to achieving socially beneficial urban water outcomes. For example, 'drought proofing' our cities through more and more water supply infrastructure is likely to be prohibitively costly. This highlights the need for the costs of meeting higher service standards to be balanced with their benefits as perceived by urban water customers and the broader community. At a minimum, effective engagement on such trade-offs will also help customers to understand why and how they are charged for such essential services. As noted by IPART (2012, p.3):

> Customers often have limited influence over the setting of service standards and any associated price increases, in particular mandatory service standards. However, their involvement in developing and setting prices and services can contribute to better outcomes. Businesses can better understand their customers' concerns and preferences and are more likely to provide services that customers are willing to pay for. At the same time, customers can better understand the factors driving prices.

A number of those consulted for this review suggested that the need to engage with customers on these price/service trade-offs reflected both the concern about water bills expressed by the broad customer base but also growing community demand for consultation on local issues (e.g. location and type of local treatment plants).

4.3 Mechanisms for establishing cost/service trade-offs

The scope to collectively offer choice to all customers on a network gives rise to the need for processes and mechanisms to engage with those customers to ascertain their preferences on these trade-offs or choices, and to reflect these in

the services provided. Waddams and Clayton suggest that the main issues around collective customer choice are:

- how to assess consumers' preferences given the well known difficulties of assessing willingness to pay/accept
- how to aggregate the different valuations, given disparity both in consumers' priorities and how they value them
- how to balance the interests of different 'stakeholders' where such issues cannot be left to the market.

Determination of these price/service trade-offs in the urban water sector is typically examined and resolved during price review processes overseen by independent economic regulators or governments. The most recent comprehensive study in Australia on customer engagement (in the context of regulatory reviews) was that undertaken by Cambridge Economic Policy Associates (CEPA) on behalf of IPART. As noted in its report:

> Part of the price setting process is the calculation of the cost of the services to be made available to customers. Regulators need some way of knowing that these services are a reflection of what customers want. Regulators would expect companies to take steps to determine what customers want and for this to be part of their business decisions. Customer engagement is therefore important for both regulated companies and regulators (Cambridge Economic Policy Associates, 2011, p. 11).

CEPA also observed that there has been increasing focusing on how such customer engagement in regulatory processes should occur, reflecting:

- the fact that traditional approaches to consumer engagement have not been successful in eliciting significant informed input to determinations
- the challenges facing the majority of regulated sectors are leading to increased pressure for investment and consequent increases in prices. Legitimacy and prioritisation of discretionary spend for consumers requires effective engagement.

The CEPA study identified and assessed a number of forms of customer engagement that could give effect to collective customer choice, namely:

- public consultation: in which a general request is made to consumers and their representatives through generally accessible media, such as websites, to garner views
- consumer panels/consultative groups: in which a selected group of consumers/consumer representatives are used to represent the views of consumers in general
- consumer surveys/willingness to pay studies in which structured surveys are used to determine consumer priorities and willingness to pay for services

- constructive engagement: in which consumers (or their representatives) negotiate some, or all, aspects of the price determination with the regulated utility.(Cambridge Economic Policy Associates, 2011)

The following discussion examines the pros and cons of each of these types of customer engagement, describes the current state of play in their use by the urban water sector, and identifies opportunities for further improvement in these arrangements.

4.3.1 Public consultation processes

Description/definition

Public consultation refers to high-level and broadly-based consultation with customers and the general public. For water businesses, this may occur during the course of regulatory reviews, but may also occur at other times. CEPA stated that:

> Public consultation is a basic approach to customer engagement that is applied by most regulators. There are a number of different forms it can take, including both formal and informal approaches. At the informal level, the information flow can be discretionary and ad hoc and may occur through letters or through informal meetings. More formal public consultation may involve regulatory documents being distributed for comment to a wide range of interested parties. The formal public consultation approach has the benefit of being flexible in terms of timing and the form that responses can take. However, it has been noted that as it is largely a discretionary process it means that less organised groups, such as small customers are not as likely to be involved in the process (Cambridge Economic Policy Associates, 2011, p. 21).

Current state of play

The extent and nature of public consultation undertaken by Australian urban water businesses varies. Some commentators, such as (Nancarrow, Unkown), have suggested that "token community engagement processes are regular practice for a number of water utilities and agencies throughout Australia".

There is, however, evidence of growing interest in how public consultation in the urban water industry can be improved to better ascertain the views of customers.

One example of evolving approaches to public consultation on price/service trade-offs during price review are those undertaken by Hunter Water in its 2013 price review by IPART.

Another example of an innovative approach to public consultation was the Water Plan developed by Gippsland Water for the 2013 price review by the ESC which consisted of a series of 'fact sheets', designed to make for a more accessible means of engaging with customers on the price/service proposition.

Box 8: Hunter Water customer engagement for IPART's 2013 price review

Hunter Water undertook extensive customer engagement for its submission to IPART for its 2013 price review. IPART had written to Hunter Water setting out its requirements for Hunter Water to consult with customers on proposed price increase, affordability and willingness to pay around discretionary spending (Hunter Water Corporation, 2012).

Hunter Water's submission reveals that this included:

- focus groups to test the response to key pricing issues in order to understand the views of the community on the issue of pricing, service levels and affordability
- interviews with key stakeholder groups and representatives to discuss the pricing process and pricing issues. In addition to this, Hunter Water also consulted with its major customers and its Consultative Forum on the topic of pricing
- brochure distribution to all billable customers within Hunter Water's area of operations to distribute information to the community about the pricing process and to explain how customers could be involved in this process and have their say, directing them to an online survey
- a survey of residential and business customers seeking demographic information, views on Hunter Water and views about discretionary spend areas
- library consultation sessions to ensure that members of the community who did not have internet access and who were not randomly selected in the telephone survey had the opportunity to complete the survey.

IPART in its draft report commended Hunter Water for its consultation for the 2013 price review. It noted that its customer consultation achieved the objectives sought by IPART, namely to improve community acceptance of proposals on discretionary spending and price structures, and to streamline IPART's review process by reducing its need to look at other evidence. (IPART, 2013)

IPART noted that Hunter Water also consulted customers about matters that IPART did not specifically ask it to consider, including affordability, control over bills, whether customers would prefer lower bills from reduced performance, and customer hardship programs.

IPART observed that Hunter Water's consultation was extensive and included discussion with major stakeholders and its Consultative Forum, focus groups to assist with survey design, randomly selected telephone interviews with both residential and business customers, making the survey available online and consultation sessions in libraries for people who do not have internet access.

Source: Hunter Water submission to IPART, IPART Draft Decision

The approach to public consultation may necessarily vary depending on the size of the water business and the region it serves. In regional urban areas of Queensland, for example, a decentralised approach to service provision by local government has devolved collective choice decisions on matters such as whether fluoride is to be added to the water supply.

As noted above, another potential area of collective customer choice relates to customers' ability to exercise choice in the supply and demand options which are adopted to meet their water needs. A criticism made by the Commission in its Future Directions report, and by several other commentators, was that there had been very little public consultation on the major and sudden investments in new water supply infrastructure during the drought. This was seen as leading to

ongoing disquiet about the choice of investments and concern about future impacts on customers' water bills. Moreover, while these water security investment programs led to a significant diversification of supply options (e.g. recycling, desalination) these alternative supply options were not presented as choices to end customers.

In recognition of the limited consultation with customers and the broader community on urban water planning during this period, new national urban water panning principles were formulated which require States to "adopt a partnership approach so that stakeholders are able to make an informed contribution to urban water planning, including consideration of the appropriate supply-demand balance" (CoAG, National Urban Water Planning Principles).

Some recent long-term urban supply-demand planning processes in Australia indicate a strong commitment to public consultation on alternative supply-demand options. For example the NSW Metropolitan Water Directorate has proposed extensive public and customer consultation programs as part of its development of the Lower Hunter Water Plan and its review of the Sydney Metropolitan Water Plan. Similarly, in reviewing options for long-term supply-demand options, both ACTEW and the Water Corporation have conducted extensive public consultation. The Office of Living Victoria is currently consulting on Melbourne's Water Future and in 2013 undertook quantitative and qualitative research to better understand consumer insights into water use and policy.

Assessment

Approaches to public consultation with customers and other stakeholders on service/price trade-offs by the water industry continue to evolve. Often, however, the most significant cost/service trade-offs relate to matters beyond the purview of the water utilities themselves. This highlights the need for effective engagement to extend to matters such as security of supply and environmental standards set by external regulators or by government.

4.3.2 Consumer panels/representative groups

Description/definition

One specific form of customer engagement is the use of consumer panels or customer representative groups. CEPA observed:

> Consumer panels are often used to discuss service or policy issues. Panels are generally made up of representatives of different consumer groups or a sample of individual consumers. The structure of consumer panels differs depending on the purpose of the group. For example, a panel may represent different types of customers and may meet on an ad hoc basis or at set times to further a particular project. (Cambridge Economic Policy Associates, 2011, p. 18)

The Productivity Commission saw merit in using a consumer representative group as a way of encouraging market participants (the utility and its household and business customers) to discuss and discover the preferred services (and their pricing), and ways of efficiently delivering them. It identified a number of precedent (see Box):

Box 9: Examples of customer representative groups in utility industries

Precedents identified by the Productivity Commission include:

- With increasing complexity, cost and time being the trend in the application of price regulation, some regulators in the United Kingdom are seeking ways to encourage consumers to have a greater role and responsibility in the process of discovering what customers want and what is efficient production and investment.
- Examples of using consumer representatives as participants in utility pricing in the United States and Canada include those overseen by the Federal Energy Regulatory Commission in the United States and the National Energy Board in Canada (both dealing with gas pipelines), and those facilitated by the Office of Public Counsel in Florida.
- The Office of Public Counsel is a consumer advocate created to provide representation for consumers in utility related matters. It participates in price setting proceedings before the Florida Public Service Commission and countries involving various utilities (including water and wastewater).
- The Consumer Advocacy Panel assists Australian businesses and households to represent their interests in policy and regulatory decisions relating to the National Energy Market by providing grants to eligible groups.(Productivity Commission, 2011, p. XXXIX).

Source: Productivity Commission

An example of this approach in the water industry is the Scottish Customer Forum established for the 2015-2020 price control by the Water Industry Commission Scotland (WICS). The forum is intended to seek agreement with Scottish Water on the priorities for future service levels as well as prices for the 2015-2020 price period. The forum will also provide input to Scottish Water's 25 year vision strategy (Consumer Focus Scotland, 2012). While the regulator still has overall responsibility for setting prices, the forum plays a central role in the price setting process.

This model comes close to the idea of negotiated settlement which involves service providers directly negotiating with customers (see below). The forum has been established as a separate entity and consists of a panel of 8 members and an independent Chair. The members are made up of 5 consumer representatives appointed by Customer Focus Scotland, 2 Licensed Provider representatives and a representative from the Scottish Council of Development and Industry (Consumer Focus Scotland, 2012).

Current state of play

Most economic regulators have established consumer representative consultative groups.

Australian urban water businesses also typically have their own customer committees with which they engage on a range of issues.

At present, however, there is no government-funded consumer or advocacy group in the urban water sector.

Assessment

There appears to be support for greater use of consumer advocacy on the part of consumer advocates. In its submission to the Productivity Commission inquiry, CUAC argued that:

> There is an immediate need for a stronger consumer voice in national water reform processes. Effective professional consumer advocacy is an important means through which this can be achieved. Unfortunately, consumer advocacy is this area is currently constrained by a lack of resources. Compared to the energy sector, consumer advocacy in water is less vigorous and under-resourced (CUAC, 2010, p. 11).

The Productivity Commission suggested that there were several issues to be resolved with the user of consumer representative groups, in particular the precise role of the representative group and selection of individual representatives of household and business consumers (Productivity Commission, 2011).

The Productivity Commission noted that consumers are diverse and sometimes have conflicting interests. It also contended that consumer advocacy groups often focus on disadvantaged groups and that while representing the interest of disadvantaged groups is important, it is also important that the interests of the majority of users of water and wastewater services are also represented. It proposed that any consumer and advocacy arrangements funded by governments should include governance arrangements that ensure that the interests of all consumers are represented in a balanced way. In similar terms, CEPA observed:

> Consumer panels are often used for long-term and regular consultation. However, long-standing members of a panel may begin to be less representative as they become more involved in the process. In some cases, this problem is addressed through periodic changes in panel membership. Some companies have engaged with panels of consumers to develop their strategies and business plans and this approach is considered useful. It is important that panel members are independent of the company and are given good information. Regulators also make use of consumer panels.(Cambridge Economic Policy Associates, 2011, p. 30)

There would appear to be opportunities to enhance the role of consumer representative bodies in the urban water sector.

It should be noted, however, that economic regulators see themselves as being representatives of customers, and typically have legislative objectives to protect the long-term interests of customers.

4.3.3 Customer surveys and willingness to pay studies

Description/definition

Customer surveys and willingness to pay studies represent attempts to more formally value the preferences held by customers and other stakeholders on the way in services are provided. IPART found it useful to distinguish between customer surveys, which were typically more qualitative, and quantitative willingness to pay (WTP) studies:

- As noted by IPART (2012), surveys can take various forms, such as questionnaires, telephone or face-to-face surveys, online surveys or customer complaint databases.
- Willingness to pay studies seek to place a monetary value on the service being considered.

Current state of play

Market research through customer surveys appears to be widely used by urban water businesses. One example was cited by WSAA (2013):

> Sydney Water recently completed a market research program identifying the needs and priorities of its customers. The result was the identification of five clear customer segments with nearly 60% of customers saying they wanted more than a basic level of service that included water and energy efficiency, as well as technological solutions. Therefore, Sydney Water is considering future product and service development in: sustainable energy and potable recycling; different price structures or mechanisms that either reward water efficiency or enable customers to have some control over their water usage such as Smart Meters; and an emergency plumbing service (WSAA, 2013, p. 43).

Consultation for this review revealed that many urban water businesses undertook regular surveys of their customers to gauge their satisfaction with the levels of services provided, and that these fed, at least indirectly, into their price/service proposals.

The use of quantitative WTP studies appeared to be much less widespread. In this regard, IPART noted that while WTP analysis may be undertaken by regulated businesses, it is not regularly presented to them in price proposals. In response, Hunter Water stated:

> Hunter Water agrees that, during any consultation on standard setting, it should provide regulators with information about the costs of complying with any proposed regulatory arrangements and about customers' willingness to pay. Indeed, where possible we do provide such information to regulators. The Burwood Beach reference group – relating to the upgrade of the Burwood Beach wastewater treatment plant – is a good example of seeking community input on the willingness to pay for environmental outcomes.(Hunter Water Corporation, 2012, p. 3)

A number of WTP studies are evident in the academic literature. A study by Cooper, Crase and Burton investigated households' willingness to pay to avoid restrictions (Cooper, Crase, & Burton, 2010). The study found that particular segments within society place a high value not being subject to water restrictions.

We understand that the NSW MWD has also commissioned a choice modelling study of the willingness to pay for water restrictions and for environmental benefits of releases from Warragamba Dam for the Hawkesbury-Nepean.

ACTEW has also undertaken WTP studies on avoidance of restrictions.

Assessment

Both customer surveys and WTP studies can and do play a useful role in helping to establish the appropriate trade-off between service levels and cost. IPART (2012) observed that a survey is more easily constructed and undertaken than a WTP study, which generally requires more time and resources. It also noted that surveys are generally well understood by the community and are common in many fields. However, it also noted that simple surveys may vary in quality and caution is essential when using the results, as it may be difficult to get a representative sample of all customers and to gauge customer views on price/service trade-offs.

IPART (2012) notes that WTP studies can provide useful insights into customer attitudes and priorities. WTP studies allow businesses to directly survey consumers or the community on their willingness to pay for goods or services that are usually not provided by the market and whose price cannot therefore be revealed. This tool gives researchers the ability to add quantitative data to a cost-benefit analysis and allow program comparisons where previously only qualitative judgements would have been possible.

IPART also notes, however, that WTP studies can be expensive. The typical process can take from 3 months up to a year, depending on complexity, and may cost hundreds of thousands of dollars. Further, methodology issues bring into question the ability to conclusively use results. Issues include:

- accurately explaining the goods and services respondents are required to choose between
- asking the survey questions in a way to ensure there is no bias
- interpreting the data.

However, these mainly quantitative surveys may be useful in testing the value that consumers place on particular service levels or environmental improvements. The survey data can then be used in an economic analysis of the costs and benefits of various options.

4.3.4 Constructive engagement/negotiation

Description/definition/rationale

This approach involves direct negotiation with a customer or group of customers or their representative on the level of service/cost trade-off:

> Constructive engagement gives the business and their customers the opportunity to agree on a price/services proposition without the formal involvement of the regulator. The regulator simply approves the agreement between the business and its customers.
>
> Constructive engagement mechanisms range from informal discussions with customers and stakeholders through to formal negotiated settlements. In negotiated settlements, customers or their representatives negotiate directly with suppliers in order to reach an agreement on price and services which is then endorsed by the regulator. Constructive engagement requires customers or their representatives to make informed comments or decisions that will influence the services provided by regulated companies. In such cases, they need considerable commitment to the process, as well as a degree of expertise and sufficient resources to engage effectively.
>
> Where the process becomes more formal, the corresponding level of commitment and expertise also tends to rise. While higher levels of engagement might be feasible for larger business users or intermediate customers such as retail suppliers, it is less feasible for small businesses or household consumers. However, there may still be a role for a consumer representative where it can be determined that these representatives properly understand consumers' views (Cambridge Economic Policy Associates, 2011, p. 43).

Current state of play

CEPA noted that constructive engagement has been widely used in the United States since the 1970s and is becoming more common in Britain. Since 2004, the Civil Aviation Authority (the UK airport regulator) has pursued a constructive engagement strategy, which it has used at both Heathrow and Gatwick airports.

One example of constructive engagement in the water industry in Australia cited by IPART was State Water's negotiation with its nine Hunter Valley-based customer service committees on discretionary service levels (see the CEPA report p 145).

Another example in the Australian water sector is the approach taken by the Gladstone Area Water Board to its commercial framework with its key customers (see Box 10).

Box 10: Gladstone Area Water Board Commercial Framework

GAWB owns Awoonga Dam and a network of pipelines, pump stations, reservoirs and treatment plants and is the major bulk water provider for the Gladstone region, which comprises Gladstone City and the adjoining Calliope Shire, extending south to Miriam Vale Shire and west to Biloela. Specifically, GAWB supplies water services to:

- the city of Gladstone and the towns of Calliope, Tannum Sands, Benaraby and Mt Larcom in Calliope Shire
- major industrial facilities located within Gladstone, the Gladstone State Development Area (to the North of Gladstone) and Boyne Island
- the power stations near Biloela.

Each of GAWB's customers places a different value on the product. GAWB has developed its commercial framework to be mindful of these differing views. GAWB's commercial framework includes the use of standard customer contracts that allow customers to tailor their exposure to supply risk. This effectively allows customers to set their own desired level of service and appetite for risk through the ability to:

- trade their reservations with other customers facilitating the best use of available water
- propose demand management measures in times of low storage levels including the potential to sell back a portion or all of their demand to GAWB
- participate in the process prior to a source augmentation whereby alternative supply solutions and\or demand management measures can be proposed
- reduce reservation levels or terminate supply altogether where a source augmentation option or alternative will result in greater than 50% price increase to the standard reservation price.

These mechanisms have been designed to ensure GAWB can deliver the high reliability level of service to customers at the lowest economic cost.

Source: GAWB submissions and website

Assessment

Key advantages of the constructive engagement/negotiation approach identified by CEPA included that it:

- allows customers an opportunity to decide what is important for them and to structure a deal that is appropriate
- leads to greater transparency and better informed customers even if the process fails
- can be combined with traditional regulation to allow consumers more control over discretionary expenditure while ensuring that mandatory requirements are met.

Key disadvantages of this approach identified by CEPA included that it:

- is expensive compared to other forms of engagement
- raises the question of which customers are being represented and so the need to ensure that future customers are protected – possibly difficult when long-lived investment decisions are being considered
- gives rise to a greater need for clarity about regulatory frameworks, role of regulator etc to be clear before any negotiations/engagement commences.

IPART (Discussion Paper 2012, p.25) concluded that constructive engagement works well when the negotiating parties have a similar level of technical

understanding and influence, but is less useful for households since this group is unlikely to be organised and their preferences too different to negotiate effectively. Nevertheless, there may be some situations, particularly where urban water businesses are dealing directly with large water customer or developers, where such direct negotiation may be appropriate.

4.4 Customer engagement mechanisms – emerging best practice

There are clearly advantages and disadvantages of each mechanism for ascertaining customers' values. This suggests that there may be benefits in utilising a combination of approaches that complement each other.

The Commission does not wish to prescribe the nature and extent of engagement that should be undertaken by water businesses or other agencies that may determine cost/service trade-offs. There may be merit, however, in establishing some broad principles relating to customer engagement.

In this regard, Ofwat has proposed a series of principles to guide stakeholder engagement in the sector (see Figure 3 below).

Figure 3. Ofwat's principles for water company stakeholder engagement

Principle 1	Water companies should deliver outcomes that customers and society value at a price they are willing to pay.
Principle 2	Customer engagement is essential to achieve the right outcomes at the right time and at the right price.
Principle 3	Engagement should not simply take place at price reviews. Engagement means understanding what customers want and responding to that in plans and ongoing delivery.
Principle 4	It is the companies' responsibility to engage with customers and to demonstrate that they have done it well.
Principle 5	Customers and their representatives must be able to challenge the companies throughout the process. The engagement process should ensure this challenge happens. If this is not done effectively, we must be able to challenge on customers' behalf. In doing so, we will fulfil our duty to protect customers.
Principle 6	Engagement is not a 'one-size-fits-all' process, but should reflect the particular circumstances of each company and its various household and non-household customers.
Principle 7	The final decision on price limits is entrusted to Ofwat. We will use a risk-based approach to challenge company plans if this is necessary to protect customers' interests.

Source: Ofwat, 2011. Involving customers in price setting – Ofwat's customer engagement policy

statement.

A recent Ofgem study also identified a number of pre-conditions that Ofgem (the energy regulator for Great Britain) considers need to be met in order for engagement to be effective.

Box 11: Preconditions for effective engagement – OfGem

A recent Ofgem study identified a number of pre-conditions that Ofgem considers need to be met in order for engagement to be effective:

- Understanding customer needs: where parties engage on behalf of end customers they need to understand the needs of those customers in order to adequately represent their views.
- Understanding the regulatory regime: Consumers or their representatives need to understand the regulatory framework in order to engage effectively. Ofgem felt that steps could be taken to improve the knowledge of parties representing consumers.
- Resources to engage: Parties need to invest time and effort to be effective in the regulatory process. The resources available to individual customers and their representative may be limited. Ofgem was of the view that there was merit in ensuring that customer representatives have access to the necessary resources to engage in regulatory issues.
- Appreciation of trade-offs: Parties engaged in the process need to understand that regulatory decisions are subject to trade-offs. For example, achieving a low carbon energy sector will have an impact on network costs.
- Willingness to engage: The willingness to engage is likely to be higher the greater is the impact of decisions on consumers or network users and the more parties feel that they can influence decisions. Varied views will be expressed by consumers and network users and it is important for the regulator to demonstrate that different views have been taken into account.

Source: Ofgem (2010)

Our consultations for this review suggested that there was considerable variation in the extent and quality of engagement with customers in the urban water sector. This suggests there may be merit in articulating what is seen to represent 'best practice' in this area. One option would be to develop national best practice principles on customer engagement.

4.5 Roles and responsibilities in customer engagement/establishing customer's preferences

While it is clearly important that engagement with customers is undertaken to inform collective choices on service standards and associated costs, another issue that emerged during the course of this review was the relative roles of different parties in undertaking this engagement, particularly in the context of regulatory price reviews.

A particular question is the extent to which businesses should undertake such engagement themselves as opposed to engagement processes undertaken by economic or other regulators.

Economic regulators typically oversee price review processes that seek customers' views through public processes such as making water businesses' proposed water plans available for public comment via written submissions and public hearings, and through various other forums.

In addition, as discussed above, water businesses typically undertake their own engagement with customers, although the extent of this varies.

Box 12: OfGem's approach to customer engagement

In the U.K. energy sector, the determination of regulatory settlements has traditionally involved ongoing discussions between Ofgem and network companies, with opportunities for others to engage via formal consultation routes. However, Ofgem has increasingly sought to engage customers in the process, in particular after it moved to outcome-based regulation with the RIIO model after the review of energy network regulation (Ofgem, 2010).

Ofgem has stated that the current aim of engagement is to obtain a better understanding of consumers' and users' views to inform its decisions, rather than to enable parties to reach agreements independently.

Ofgem has also adopted a hands-on approach to stakeholder engagement, actively participating in the process. Ofgem sets the issues for engagement sessions, chairs the engagement meetings and decides how to balance the interests of different parties in line with their regulatory duties.

In its paper on stakeholder engagement, Ofgem sets out the reasons for its decision to be "in the room" and play an active role in the engagement process (Ofgem, 2010). These include:

- concerns that the interests of consumer representatives, network users and other parties are not sufficiently aligned with those of customers to allow them to agree on regulatory decisions
- absence of any body that could represent future consumers and their interests, which the regulator has a duty to protect
- difficulty for customer representative bodies to develop a sufficiently full understanding of the diversity of consumer needs and interests to represent the entire consumer view accurately to make trade-offs between competing views from different groups of customers
- concerns over the current level of expertise of all but a small number of consumer representatives.

Ofgem has stated that, in the future, consumer representatives may be able to increase their knowledge of the regulatory framework and of consumers' needs. In this case, Ofgem may contemplate a switch to a more collaborative model, where decisions could be taken by the regulator together with the representatives.

Source: Frontier Economics

While economic regulators clearly need to satisfy themselves that the proposed service levels and prices for regulated water businesses reflect what customers want and are prepared to pay for, one potential concern is that the consultation processes undertaken by economic regulators may dilute the primary

responsibility of utilities to communicate with their own customers. A view expressed by some involved in regulatory processes for U.K. water businesses is that the businesses even came to look upon the regulator (OfWat) as their principal customer.

One approach would be for regulators to detail or prescribe the extent and nature of customer engagement it would expect regulated businesses to undertake and demonstrate evidence of in their pricing proposals. One example of a regulator imposing requirements on regulated businesses to consult with customers is the approach adopted by OfWat in the U.K. where companies are expected to engage with a wide range of stakeholders in developing outcomes, measures of success and incentives. In Australia, economic regulators such as IPART and the ESC require clear evidence that regulated water businesses have consulted with customers before they will approve 'discretionary' spending that goes beyond meeting the minimum obligations.

It may be that regulators can play less active roles in customer engagement as the economic regulation framework matures. For example, during our consultations one State regulator noted that it played a key role in initiating WTP studies in the energy sector, but now energy businesses commission such studies themselves.

While there may be scope for water businesses to improve their engagement on price/service issues within their control, a number of those consulted for this review noted that it is important to recognise that many of the service standards governing the delivery of water and sewerage services are set by regulators or government agencies external to the business. Some of these standards, such as environmental standards and security of supply criteria, may be major drivers of cost and of the overall level of service provided to customers. In this regard, Hunter Water, in its response to an IPART discussion paper on customer engagement, commented:

> The IPART discussion paper appears to focus the responsibility for consultation on the trade-off between price and levels of service or service standards on monopoly providers (utilities), even though these service levels and standards are frequently set externally and independently by regulators. There appears to be little focus in the discussion paper on the roles and responsibilities of regulators for community and customer engagement on the price/outcome trade-off, particularly where service standards are determined by regulators (Hunter Water Corporation, 2012, p. 1).

A number of those consulted for this review suggested that these standards which water utilities were required to meet (often as licence obligations) were often not set with reference to customers' willingness to pay and the requirements for regulatory impact statements appeared to often be avoided. This highlights the need for clearly defining responsibility and aligning accountability for determining, and consulting on, different aspects of the services provided to end customers.

4.6 Ensuring customer service standards are met

While engaging with customers to establish desired levels of service is important, ultimately what matters is whether this is delivered in practice.

While businesses in a competitive market face strong incentives to meet customers' expectations, in utility industries characterised by limited choice there is a need to supplement these with regulatory enforcement and incentives.

One means of attempting to ensure that water businesses meet their level of service obligations is to include a mechanism within the regulatory framework that monitors regulated businesses' performance and rewards/penalises success or failure to achieve the specified standards. Examples of this are the GSL arrangement applied by the ESC to Victorian water businesses and the Service Incentive Mechanism overseen by OfWat in the U.K.

Another way of making water utilities accountable for their customer service is through imposing requirements on their customer complaints processes and establishing external customer ombudsman schemes.

5 Overall findings/conclusions

The urban water sector is clearly evolving from one which was dominated by an engineering mindset whereby decisions on virtually all aspects of urban water services were determined by central planners' views as to what was best for urban water users. Since microeconomic reforms dating back to the mid 1990s, there has been a gradual widening of the options open to urban water users and moves towards consulting customers to ascertain their views and preferences.

Key drivers of this include:

- reforms in other utility sectors generating debate amongst policymakers
- changing culture in the industry
- emerging technological developments allowing alternative sources of water
- growing demand by communities to be consulted on issues affecting the local environment and liveability
- reaction against centrally determined supply augmentations undertaken with little or no public consultation and now impacting on people's water bills
- land development demands

The sorts of choice that have been available to date have however been somewhat constrained. Key impediments to a wider degree of choice include:

- lack of competition due to the existence of large government-owned water businesses
- postage stamp pricing policies
- uniform restrictions
- prescriptive approaches to economic and technical regulation
- community attitudes towards water as a 'public good'

5.1 Opportunities for greater customer choice

There are clearly many opportunities for further enhancing customer choice in the urban water sector.

In assessing and prioritising these opportunities, it is important to focus on the underlying policy objectives of offering greater choice: the extent to which they are likely to facilitate the provision of secure, safe, healthy and reliable water–related services to urban communities in an economically efficient and sustainable manner.

It is also important to recognise the features of the urban water sector that mean that it may be difficult or costly to adopt the competitive choice market model that has been implemented in the energy and other utility sectors.

The merits of particular types of customer choice options may also vary depending on local circumstances.

Finally, it is important to take into account the type of customers most likely to benefit from having greater choice and the sorts of choice which they are likely to value and seek to exercise. It needs to be recognised that people attach values to water that extend beyond their value as a service to the role of water in the environment and enhancing liveability.

Our assessment is that the largest payoffs are likely to come from ensuring that future capital investments are optimised. Key drivers of future capital expenditure include meeting growth and compliance with environmental and other standards. This suggests that significant benefits are likely to come from opening up choice for servicing new infill and greenfield developments. It also suggests that ensuring that key standards such as the level of security of supply and environmental standards – are themselves subject to a cost-benefit or willingness to pay assessments that includes effective engagement with customers.

In terms of individual choice, it is our assessment that the greatest benefits from providing greater choice to individual customers are likely to apply to larger non-residential customers and developers, rather than to smaller household and other customers. This is because the basic water and sewerage services provided to households are relatively homogeneous and there may be little benefit in opening these to competition relative to the costs involved in doing so and the low proportion of a customer's bill that is accounted for by retail functions. There may be more scope to differentiate the services provided to larger customers and to developers to reflect their particular needs and requirements. This includes the potential to provide an alternative water supply source such as recycled water. Even within the context of monopoly supply, however, there may be opportunities to offer customer value added services such as on-line billing and other customer services, and, with some caveats, alternative tariff options.

In relation to collective customer choice there would appear to be opportunities for some water businesses, regulators and government agencies to further improve their engagement with customers.

5.2 Reform opportunities

This report has identified a number of reform opportunities that may enhance the role of customer choice and a greater customer voice in supporting the NWI high-level objectives of water security, safety, efficiency and sustainability.

These include:

- Rolling out State-based third party access and related licensing regimes and customer protection frameworks to make it easier for new entrants particularly those wishing to provide alternative water solutions. This would also represent a necessary prerequisite should there be any future initiatives to progressively introduce retail competition.
- Providing greater flexibility in regulatory arrangements for water businesses to propose alternative tariffs, subject to a number of safeguards.
- Developing national best practice principles on customer engagement and/or incorporating obligations in the regulatory frameworks overseen by economic regulators for water businesses to undertake specified consultation in developing their pricing submissions.
- Ensuring that regulators or other agencies making decisions on standards to apply to water and related services (including long-term supply-demand planning processes) engage with customers and the broader community and fully comply with RIS requirements.

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Attachment B: Hunter Water – customer engagement for 2013 price review

Hunter Water undertook extensive customer engagement for its submission to IPART for its 2013 price review.

IPART had written to Hunter Water setting out its requirements for Hunter Water to consult with customers on proposed price increase, affordability and willingness to pay around discretionary spending. Hunter Water engaged Insync Survey to develop a comprehensive research and engagement strategy for the price submission. The primary objective of this work was to involve the community in the price setting process through consultation on areas of discretionary spend and service levels. The specific methodology is detailed below.

- Focus groups

Four focus groups were held across different segments of the population, which included families, people experiencing financial hardship and the elderly. In addition, a focus group was held with a sample of customer panel members. The purpose of the focus groups was to test the response to key pricing issues in order to understand the views of the community on the issue of pricing, service levels and affordability. The focus group respondents highlighted gaps in knowledge and understanding on the topic of pricing and this information was used to develop questions for a major survey and content for an information brochure. This approach allowed Hunter Water to develop messages that were relevant to, and understood by, the community.

- Stakeholder interviews

Stakeholder interviews were conducted with key stakeholder groups and representatives to discuss the pricing process and pricing issues. In addition to this, Hunter Water also consulted with its major customers and its Consultative Forum on the topic of pricing.

Interviews were held with the following stakeholder groups:

- Ethnic Communities Council - Newcastle and Hunter Region
- Urban Development Institute Australia
- Hunter Region Landcare Network
- Hunter Environmental Institute
- Mandurah Hunter Indigenous Business Chamber
- Master Plumbers Association of NSW
- Catchment Management Authority

- Hunter Chamber of Commerce
- Local government.

- Brochure distribution

In June 2012, an information brochure was distributed to all billable customers within Hunter Water's area of operations. The distribution of the brochure had two purposes. Firstly, to use the insights gained in the focus groups to distribute information to the community about the pricing process and secondly, to explain how customers could be involved in this process and have their say, directing them to an online survey. Readers were directed to the survey via a web address listed on the brochure, in addition there was a QR code which allowed smart-phone users to directly link to the survey. The QR code provided an immediate and convenient way to access the survey and was a tool used to reach the younger segment of the customer base who are typically a difficult segment to engage.

- Survey of residential and business customers

In addition to the online survey, a random telephone survey of 500 residential customers and 200 business customers was conducted. The telephone survey asked identical questions to the online survey. As mentioned above, the issues raised in the focus groups were used to further develop the survey questions. There were three sets of questions, demographic information, views of Hunter Water and views about discretionary spend areas. Differences in awareness and/or understanding amongst customers about the pricing process, Hunter Water services and the potential for change, required that a degree of contextual information be provided in the information brochure and with the questions, where appropriate.

The survey focused on gauging customers' willingness to pay for spending that could be considered discretionary. Examples of discretionary expenditure included the removal of graffiti from conspicuous Hunter Water facilities (e.g. buildings, above ground reservoirs and pumping stations), odour control from the sewerage system and service levels above the mandated standards.

Pilot online and telephone surveys were conducted prior to launching the survey. The pilot surveys tested that respondents understood the questions and were able to respond and complete the survey. The pilot demonstrated that the questionnaire was well developed and that the questions provided sufficient context for respondents to answer the questions confidently.

- Library consultation sessions

To further support the information brochure and the survey, Hunter Water representatives conducted drop in sessions at libraries across all seven local government areas. Sessions were held at:

- Cessnock

- Maitland
- Dungog
- Raymond Terrace
- Newcastle
- Toronto
- Swansea
- Belmont
- Charlestown

These sessions were spread over a week and included morning, afternoon, evening and weekend sessions to reach as many customers as possible.

The purpose of the sessions was to ensure that members of the community who did not have internet access and who were not randomly selected in the telephone survey had the opportunity to complete the survey. It also provided the opportunity for collaborative engagement, enabling customers to seek more information or further discuss issues of interest. In total, 60 people attended these sessions.

To support the information contained in the brochure, reinforce the online survey and library sessions and reach any members of the community who may not have received the brochure, Hunter Water undertook various advertising initiatives throughout the process.

Advertising included:

- A banner on the Hunter Water website, which clicked through to the survey.
- Advertising banners on the websites of local newspapers, which clicked through to the survey. These sites included; Maitland Mercury, Port Stephens Examiner, Cessnock Advertiser, Dungog Chronicle and the Newcastle Herald.
- Printed advertisements in the Newcastle Herald over two consecutive Saturday editions. This included information about the survey (including the QR code which provided a direct link to the online survey) and the library session dates and times.
- Printed advertisements in the Maitland Mercury, Port Stephens Examiner, Cessnock Advertiser and Dungog Chronicle during the first week of the survey.

IPART in its draft report commended Hunter Water for its consultation for the 2013 price review. It noted that is customer consultation achieved the objectives sought by IPART, namely to improve community acceptance of proposals on

discretionary spending and price structures, and to streamline IPART's review process by reducing its need to look at other evidence.

IPART noted that Hunter Water also consulted customers about matters that IPART did not specifically ask it to consider, including affordability, control over bills, whether customers would prefer lower bills from reduced performance, and customer hardship programs.

IPART observed that Hunter Water's consultation was extensive and included discussion with major stakeholders and its Consultative Forum, focus groups to assist with survey design, randomly selected telephone interviews with both residential and business customers, making the survey available online and consultation sessions in libraries for people who do not have internet access.

Attachment C: Ofwat – customer engagement

In its customer engagement policy statement, Ofwat sets out the main features of the stakeholder engagement process it envisages (Ofwat, 2011). These include the following:

- Ofwat considers customers to be "at the heart of the price-setting process - they need to know that the bills they pay are fair and legitimate".
- Ofwat expects companies "to take responsibility for engaging more with customers".
- Ofwat will not prescribe how to do this, but "will provide high-level guidance and expect companies to use good practice".

The policy statement emphasises that companies are responsible for providing Ofwat with the appropriate level of assurance and evidence of stakeholder engagement to support their proposals. Customer engagement will be an important factor in determining whether Ofwat will accept companies' business plans. Furthermore, the level of evidence of customer support needed will depend on the scale of changes to bills and services that a company is seeking.

In its recent FPL framework, Ofwat has set out what it considers to be the key characteristics of good stakeholder engagement, in terms of its scope and approach. Key themes include:

- the engagement process needs to be continuous, rather than a periodic process around the price review
- where possible, different customers types can be segmented, so that companies can understand and engage on their particular needs and concerns
- the engagement needs to be evidence based, with information collected through appropriate tools such as market research, focus groups and revealed preferences research
- the engagement process needs to be open, objective and impartial
- through engagement, companies should explore the full range of possible solutions, without necessarily relying on traditional approaches.

Ofwat proposes a three-tiered approach which enables customers to influence all parts of their companies' business plans:

- Direct local engagement with their customers, typically on local priorities and issues that could have a significant impact on the service customers receive or those that affect the local community (such as local service levels, investments in sustainable drainage solutions, or variable tariffs).

- Engagement through a company customer challenge group (CCG), to ensure that the company's business plan reflects a sound understanding and reasonable balance of customers' views, and whether the phasing, scope and scale of work required to deliver outcomes is socially, economically and environmentally sustainable.
- Engagement through a sector-wide customer advisory panel, set up and run by Ofwat. This will comprise members with the expertise and experience to inform and challenge Ofwat on a number of key sector-wide assumptions, such as the cost of capital, and provisions for pensions and energy.

While stakeholder engagement may be more intensive during the price review period, it is important that stakeholders are consulted between price reviews so that companies can:

- build a better understanding of customers' views and priorities
- be informed about changes in customer preferences.

Stakeholder engagement should involve a range of groups including:

- Customers – Companies' engagement with customers may vary from surveys, focus groups and other types of customer research to customer panels.
- Company Customer Challenge Group (CCG) – Ofwat requires companies to run a CCG that consists of customer representatives such as the Consumer Council for Water (CCWater), customer and community stakeholders such as local authorities and businesses and organisations that represent particular segments of customers such as Age UK, Citizens Advice Bureau or the National Farmers' Union.
- Sector-wide customer advisory panel – The panel is run by Ofwat and members have the expertise and experience to inform and challenge Ofwat on sector-wide issues such as the cost of capital or pensions.
- Other regulators – The EA and DWI should be consulted on outcomes related to the environment and drinking water quality.
- Investors – Shareholders and debt holders should be consulted on the risk-reward balance.
- Water industry – Other water companies, other abstractors and potential entrants may need to be consulted on specific topics.

In addition to these stakeholders, companies are also expected to reflect the interests of future consumers. To the extent that engagement with current customers may not reflect the interests of future customers, customer representatives should be encouraged to take these into account. The CCG is likely to be the best forum to check that the interests of future customers are adequately considered.

In some cases different stakeholders will have heterogeneous views. For example, a large industrial customer may have different priorities from the majority of households. In addition, household customers are not a homogenous group. Ofwat has stated that:

> "Engagement processes need to help deliver a package of prices and services that reflects these differences, capturing the views of different social groups and identifying issues that are important to particular communities"(Ofwat, 2012, p. 12).

Water companies should therefore identify whether views collected during stakeholder engagement represent a wide group of customers or a particular group of customers. As a general position company plans should reflect the priorities of the majority of its customers and wider stakeholders. However, in specific cases companies may have the ability to segment levels of service and therefore reflect the views of particular customer groups. For example, large industrial users may put a higher value on security of supply than households. Depending on the characteristics of the physical infrastructure, the differences in valuation could be reflected in varying levels of service.

Companies are responsible for providing Ofwat with the appropriate level of assurance and evidence of stakeholder engagement to support their proposals.

Attachment D: Retail competition in urban water in Scotland and the UK

Retail competition for certain non-residential customers was introduced in Scotland in 2008 and there have been recent moves to extend this into other parts of the U.K.

Scotland

The competitive retail market for non-household water and wastewater customers opened in Scotland in 2008. This followed the passing of legislation requiring the Water Industry Commission for Scotland, the economic regulator of the water sector in Scotland, to facilitate access to the Scottish water and sewerage market for new retail suppliers without causing any detriment to the core (wholesale) business of Scottish Water (Sutherland, 2011). (Water Services etc (Scotland) Act 2005).

A comprehensive summary and analysis of the Scottish reforms is contained in Less, S. (2011, July). Water Retail Services Competition in England and Wales. *Policy Exchange*, and is summarised below.

A key element of the reforms was that Scottish Water was required to transfer its retail service activities into a new company 'Business Stream' (Less, 2011). Both remain owned by the Scottish government. Scottish Water continues to provide services to its 2.4m household customers, and retains control of Scotland's publicly owned network of pipes, sewers and treatment works.

Since 2008, Business Stream has competed on an equal footing with a number of new entrant licensed retail service suppliers. These new suppliers buy wholesale services (the physical supply of water and removal of sewage) from Scottish Water. An independent organisation—the Central Market Agency—calculates wholesale bills and registers switches of supplier by customers. The Water Industry Commission ensured that no customer is worse off as a result of competition, by making it a licence condition that all new retailers must offer a default level of service and tariff to any customer, anywhere in Scotland. At present there are four new entrants, including two owned by English water companies.

Less (2011) found that while the regulator in Scotland (the Water Industry Commission for Scotland) does not monitor numbers of switches and market shares, it seems clear that the incumbent Business Stream still holds more than 90% of the market. Nevertheless, a third of customers have tendered their water contract and many more have negotiated price and service improvements from Business Stream, under the threat of switching. Within a few months of market opening in 2008 a quarter of all customers had negotiated lower prices, with the figure now almost 60%.

An assessment of the Scottish reforms was undertaken by the Water Industry Commission for Scotland which found that:

> ... two years on and the retail competition framework in Scotland is working well. More than 45,000 customers in Scotland have renegotiated the terms of their supplies – receiving either better prices or more tailored levels of service, and in many cases both. Discounts are often offered to customers who sign up for direct debit or a multi-year supply contract. The number of supply points switched by customers to one of the new retailers has also increased by 40% in the last year (WICS, 2010, p. 7).

The WICS commissioned independent consultants Grant Thornton to review the likely benefits from competition for customers and the environment both now and in future. They forecast that competitive pressures will drive down charges and there will also be lower levels of water use as customers use water more efficiently. It forecast savings for customers over the next decade of £110m (WICS, 2010).

England and Wales

The *Water Act 2003* put in place a framework for a limited retail market for water, enabling very large water customers to switch suppliers and new players to enter the market. However, this initiative did not lead to sustainable levels of competition. By 2011 only one customer had changed suppliers (Secretary of State for Envrionment, Food and Rural Affairs, 2011).

Following the introduction of competition in Scotland, the UK undertook a series of independent reviews to consider the benefits of competition for both England and Wales.

A major review of the water industry was undertaken by Professor Martin Cave. The results of this review are found in DEFRA (2009).

The Cave Review (2009) recommended

- After an initial five megalitre threshold, there may be practical benefits from abolishing the retail threshold for non-household customers on the introduction of accompanying changes.
- At the time, the case for extending competition to households remains weak. Ofwat, with support from stakeholders, should provide further assessments of the costs and benefits of these changes at the appropriate time as part of its duty to report to the UK and Welsh Assembly Governments on the development of water markets.
- Legal separation should be mandatory except where such separation would lead to unavoidable and unacceptably large bill increases to customers that outweighed the monetary and non-monetary benefits of such separation.

The Review did not consider competition or innovation as being ends in themselves but rather viewed them as a means of improving services for

customers, particularly the most vulnerable, and improving environmental outcomes (DEFRA, 2009).

Less (2011) considered that the Cave review's proposals had the potential to achieve a wide range of benefits for water customers and the economy, financial benefits for water companies and environmental benefits, including the following:

- Increased productive efficiency, for example, through renegotiating contracts, streamlining processes, and stopping unwanted activities.
- Increased dynamic efficiency, developing new and better ways of working, for example, through developing new billing systems, introducing smarter meters and through more efficient companies replacing less efficient ones.
- Improved customer services, and the development of new services.
- Ability for multi-site customers to contract with one or two national retail services suppliers, reducing numbers of bills and administration costs, and improving comparability of consumption information. For example, reducing one customer's 4,000 paper bills each year to a single national electronic bill could save perhaps £80,000-£200,000 for that customer alone.
- There would be environmental benefits, through competing water retail services companies having new incentives to give customers what they want, including helping customers make savings by using less water and identifying leaks rapidly. Separated retailers have fewer incentives than integrated companies to maximise the supply of water, since they can, as Business Stream does in Scotland, effectively sell services for the reduction of water consumption instead.
- Economies of scale, through consolidation within the water and sewerage sector, and potentially with other utility retailers.
- Releasing finance for infrastructure investment, since the value of separated retail businesses (perhaps worth collectively over £4 billion) could be realised by appointed water companies, for example, if sold as part of consolidation.
- Improved processes and efficiency would transfer across a retail business benefiting household customers as well, and a competitive non-household retail market would provide Ofwat with more information with which to better regulate the prices for households.
- There could be improvements as well in wholesale water businesses' efficiency, as separated retailers applied pressure on the wholesale monopoly businesses to deliver, and undertook measures that reduced wholesalers' costs, such as reducing water demand thus delaying the need for new water supply infrastructure.

- The Cave review proposals are strongly deregulatory, removing requirements to provide vertically integrated services, restrictions on mergers of retail businesses, restrictions on the way access to wholesale supplies is priced, restrictions on serving customers out of area and restrictions on customers' eligibility to choose their supplier. They also reduce the need some of Ofwat's regulatory requirements.

At the same time, Less observed, there are costs and risks associated with setting up and operating a market that need to be weighed against the expected benefits. These include the following:

- Set-up costs, including costs of legally separating retail and wholesale businesses, developing market codes and establishing a central market authority to manage the process of switching customers and settlement.
- Ongoing costs, including operation of the switching and settlement arrangements and the regulator's costs in overseeing the market.
- There is a potential risk that some customers could be worse off. However this risk can be addressed by a combination of the continuation of a regulated, appointed water wholesaler in each region, and the requirement that each retailer must offer a regulated default tariff.
- Another potential risk is loss of economies of scope. However, the evidence is that, in contrast to some other water sector activities, there are few such scope economies between wholesale and retail services.
- A further risk often cited is that infrastructure financing costs could rise. However, it is unlikely that retail services separation and competition would lead to an increased cost of infrastructure investment capital, because all of the Regulatory Capital Value (RCV) of water companies is likely to remain with the appointed wholesale company, the risks on which would be unchanged (or reduced).

The Cave review did not recommend the extension of competition to all non-domestic and household customers. The Cave review found that based on a reasonable range of costs estimates, the net present value of such a reform would likely be negative (DEFRA, 2008).

The Cave review also advocated a staged approach to the introduction of competition. While such an approach may be more costly in financial terms than opening up all customers to retail competition at once, given the uncertainties regarding how competition will develop the cautious "trust and verify' approach offers the best chance of capturing the greatest benefits retail competition can bring, whilst minimising any risks (DEFRA, 2008).

The Cave Review was supported by two other major reviews in the UK, Ann Walker's Independent Review of Charging for Household Water and Sewerage

Services and David Gray's Review of OFWAT and Consumer Representation in the Water Sector (DEFRA, 2011)(DEFRA, 2009).

In December 2011, the UK government published its Water White Paper, providing a road map for reform in the water sector in England.

In seeking to increase the scope for competition in the water sector, the UK Government stated that it wished to follow an 'evolutionary approach to reform [with] deregulatory changes to make the existing competition regime work more effectively'. Many of the proposed changes reflected the recommendations of the Cave Review, in particular those aimed at widening the scope for retail competition for non-domestic customers, as well as for certain forms of entry for new market participants upstream. These include creating a separate water supply licence for sewerage retail services; unbundling the water supply licence to allow scope for upstream-only entry; replacing the cost principle for access pricing; reducing the threshold for customer eligibility to switch retailer supplier under the water supply licensing (WSL) regime; streamlining the inset regime; and reforming the special mergers regime. Also, as per the Cave Review, the government did not see a case in the foreseeable future for extending retail competition to households.

One important difference, however, is that the White Paper ruled out requiring the legal separation of water companies' retail businesses (Secretary of State for Envrionment, Food and Rural Affairs, 2011).

One recent critique (Deloitte 2011) questioned whether proposals for extending retail competition in the U.K. water sector would deliver significant benefits on the grounds that they were not focused on well identified and significant cost efficiencies. Deloitte recognised that service quality may improve with the increased focus that dedicated retail businesses may provide their customers. However, it suggested that given existing consumer satisfaction survey results and the extent of possible service improvements achievable under the existing regulatory regimes (e.g. the new Service Incentive Mechanism), the proposed introduction of retail competition should have a well-defined prospect of delivering price reductions before it could be deemed appropriate. Deloitte suggested that the case for retail competition needed to be more closely related to the key objectives for water reform and needed to be further developed by:

- identifying in an overall reform packages how downstream competition relates to an upstream competition model
- assessing the feasibility and potential impact of consolidation in downstream retailing activities on the achievement of efficiencies and on competitive conditions
- assessing the likelihood of 'spillover' benefits being achieved and the regulatory mechanisms whereby these – if achieved- are passed through to consumers

- determining in the context of implementation costs and prospective efficiency gains, what a potential price path is for consumers.

Deloitte considered this important because introducing retail competition will be a costly and time-consuming process and as such could exclude other initiatives that might otherwise lead to improved efficiencies.

Attachment E: Consultation

The following parties were consulted for this project:

- A.C.T. Environment and Sustainable Development Directorate
- Australian Industry Group
- City West Water
- Consumer Utilities Advocacy Centre (CUAC)
- Department of Energy and Water Supply (Queensland)
- Department of Environment and Primary Industries (Vic)
- Department of Primary Industries, Parks, Water and Environment (Tas)
- Department of Water (WA)
- Essential Service Commission of South Australia (ESCOSA)
- Essential Services Commission (Victoria)
- Hunter Water Corporation
- Metropolitan Water Directorate (NSW)
- Office of Living Victoria (OLV)
- SA Water
- Sydney Water
- Water Corporation
- Water Services Association of Australia (WSAA)
- Yarra Valley Water

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