Sydney WATER

Sydney Water's response to IPART's Wholesale Pricing Discussion Paper

IPART's review of prices for wholesale water and sewerage services

31 May 2016

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Executive summary

Sydney Water Corporation (Sydney Water) welcomes the opportunity to respond to the Independent Pricing and Regulatory Tribunal's (IPART's) Discussion Paper titled *Prices for wholesale water and sewerage services* (the Discussion Paper) which was released 26 April 2016.

We support IPART's recent decision to undertake separate consideration of wholesale access prices and deal with the issue as a stand-alone determination. We have consistently taken a constructive approach when dealing with access-related issues on both a commercial and regulatory basis. Our track record over the past few years demonstrates our willingness to engage with competitors to provide access to our infrastructure and to work positively in dealing with any issues raised.

Sydney Water's position on competition

As a business, we outsource a considerable proportion of our expenditure – around 90% of total capital expenditure and 70% of our core operating expenditure. As a result, Sydney Water is very familiar with the benefits from competitive sourcing arrangements. It enables efficiencies through lowering costs and providing better services to customers at lower prices. We view wholesale access pricing no differently. To the extent it promotes efficiency and lowers prices or adds value to our customers, Sydney Water supports the introduction of competition to the NSW urban water sector and sees it as an appropriate measure.

Given the application of the postage stamp price inherent within the universal service obligation, there will always be challenges in stimulating a vibrant competitive retail market for customers. This is reinforced by the underlying economics and dynamics of the water sector. The Productivity Commission in its inquiry report on *Australia's Urban Water Sector* in October 2011 acknowledged that water is unlike other utility sectors. It stated on p 245 that the potential gains from competition were likely to be more modest because:

> …compared with other utility sectors, a greater proportion of costs are in natural monopoly elements of the supply chain (for which competition in the market would be inefficient).

Examples of the differences that exist between water and other sectors, such as telecommunications and energy, where retail competition has been introduced into monopoly-based industries are:

- there are stronger natural monopoly components in the supply of urban water
- unlike telecommunications there are not the variety of products that can be delivered to customers – it is just water and wastewater services, sometimes delivered using recycled water solutions – and unlike data packets, water is bulky with high costs of transportation and storage relative to its final selling price
- there are much smaller retail margins for products than in the energy and telecommunications sectors

- while the *Water Industry Competition Act 2006* (the WIC Act) provides for a third party access regime, there has been no use of these provisions over the eight years since its enactment. Entry and competition in the water sector has been limited and has been competition for the market to service individual developers in new developments. Indeed, entry has been by businesses that are majority owned by large developers. Currently, there is no competition in the market as:
    - consumers can only switch water suppliers if they move property. Developers locking in a monopoly retail supplier to service end-users would, in the telecommunications sector, risk being found to be anti-competitive. Government policy for telecommunications infrastructure in new developments has recognised that given the first network built in an area will often secure an effective monopoly, it is crucial that open access that provides customers with the ability to choose amongst competing retail service providers is supported.
    - the proposed amendments to the WIC Act that allow for competition in the market for non-residential customers, have yet to be enacted.

Sydney Water's position on wholesale pricing

We recognise that during the course of IPART's public forum held in December 2015, there appeared to be some disagreement in relation to how wholesale customers should be treated and, consequently, the price they should pay. We also acknowledge stakeholder concern that the current WIC Act provisions may not necessarily be appropriate for the type of access being contemplated by wholesalers. This suggests an IPART-determined wholesale price may be the appropriate approach at this time.

Sydney Water believes there is a need to ensure that any IPART determined wholesale access price and approach to implementation promotes both efficiency and certainty.

Sydney Water has, over the course of the past year, maintained that given the postage stamp price, to ensure efficient outcomes that appropriately balance the interests of the wholesale service provider, the access seeker and end-users, wholesale customers should

1. be viewed differently from non-residential customers
2. have access prices set using a retail-minus price approach, where the 'minus' is based on the avoidable costs, which is equivalent to an equally efficient competitor standard.

Our position was reinforced at the public forum.

We have expressed concern that, to the extent prices are inconsistent with a retail-minus avoidable cost approach, it will cross-subsidise entrants. This will promote inefficient entry, generating higher prices for customers which is contrary to what competition should achieve. In considering how this could be implemented, Sydney Water also noted that we would contemplate an access undertaking if stakeholders believed it would overcome uncertainties associated with the operation of the WIC Act and best promote certainty for the industry in future.

IPART's Discussion Paper – Sydney Water's views

This is a new area of regulation and currently there are only limited examples of entry to the sector. Sydney Water appreciates that despite the inherent uncertainty associated with future market developments, IPART has in its Discussion Paper attempted to raise as many issues as possible.

We have at times found it challenging to interpret and respond to the questions raised by IPART. Sydney Water has undertaken our best endeavours to provide detailed responses. However, to the extent issues in the Discussion Paper remain unclear, our feedback has been limited to more high level or principled responses. We strongly believe any future engagement on wholesale access pricing by IPART would greatly benefit from worked numerical examples of the scenarios being contemplated. This would give us a better understanding of how the approach to wholesale access pricing would work in practice and the potential impact. This would also provide the opportunity for a more considered and detailed response.

Despite our concerns with the level of detail in the paper, Sydney Water nevertheless supports IPART's main objective of setting a wholesale access price to encourage efficient entry to the water and sewerage services markets.

To achieve efficient entry, IPART's approach to wholesale pricing has the following key components:

- the adoption of a retail-minus pricing approach
- a cost standard for calculating the minus based on a reasonably efficient competitor cost for the delivery of water or sewerage services from the wholesale connection point to the end-user – with the addition of net facilitation costs to take into account the incumbent's costs of supply
- proposing three options for implementing the pricing approach with varying degrees of information and regulatory intervention, an interim arrangement to the extent an option takes time to implement, and considering the appropriate length of the determination.

The retail-minus approach

Sydney Water supports the adoption of a retail-minus pricing approach. We agree with IPART's assessment that it is the only approach under the existing framework which allows the incumbent water utility and new entrant to compete on equal terms.

The minus cost standard and net facilitation costs

In principle we support the net facilitation costs approach of deducting any costs savings and adding any extra costs that the access provider causes for Sydney Water as a result of entry. This is one component of the avoidable cost calculation we originally proposed.

However, Sydney Water does not support IPART's preliminary view to use the 'reasonably efficient competitor' as the standard for calculating the cost of the delivery of water or sewerage services from the wholesale connection point to the end-user.

We acknowledge that in considering the appropriate cost standard for the wholesale access price, IPART faces a difficult trade-off. It has to balance the competing interests of keeping bills as low as

possible for consumers, with the potential benefits from promoting entry. The equally efficient competitor cost standard keeps bills for customers as low as possible, while the reasonably efficient entrant cost standard is more likely to promote entry.

Given the very limited benefits likely to emerge from entry in the NSW urban water market, we believe it is in the long-term interests of customers to ensure bills remain low. This implies an avoidable cost approach, or equivalently, the combination of an equally efficient competitor and net facilitation cost standard, best promotes the long-term interests of customers.

We have some key concerns with the reasonably efficient competitor approach to estimate costs:

- It does not represent a best practice approach for setting access prices.
- It subsidises new entry, incentivising inefficient entry without providing any clearly articulated causal link to long-term benefits. The subsidy will need to be funded by either:
    - artificially increasing prices for customers or
    - decreasing returns to shareholders.
- It presumes new entrants are at a competitive disadvantage due to an absence of scale and scope economies

Each of the issues is discussed in more detail below.

Not regulatory best practice

By adopting the reasonably efficient competitor standard for the minus in combination with net facilitation costs, IPART's proposal is a partial avoidable cost approach. We do not believe this is in line with regulatory best practice. We believe that an efficient entrant cost standard is more consistent with regulatory best practice.

To the extent a reasonably efficient competitor standard has been adopted it has been in the context of undertaking anti-competitive conduct or 'margin squeeze' assessments in sectors where there are positive profit margins. Even then, HoustonKemp, who we engaged to undertake an expert independent assessment of the reasonably efficient cost standard, noted courts in Europe when considering the appropriate cost standard for anti-competitive conduct dealings, have affirmed a preference for the efficient entrant cost standard on the basis that it:

- promotes efficient entry to the market
- ensures less efficient operators are not protected by competition law
- provides a readily objective self-assessment of compliance for incumbent firms.

Sydney Water is also unaware of the reasonably efficient competitor cost standard being adopted to set access prices. Its use is unprecedented in setting an access price in the presence of a postage-stamp pricing arrangement, as it promotes increased prices for consumers and inefficiency. Ofwat, in considering how competition could be promoted in its *Business retail price review 2016*, May 2016 report, stated on p 10 that:

> We accept that the cost allowances we have made for incumbents (which may benefit from economies of scale) may not always reflect the costs of new entrants. In setting price controls we need to consider carefully our statutory duties, including how to protect the interests of consumers, wherever appropriate by promoting effective competition. Artificially raising prices above efficient levels would not appear to protect customers or be necessary to encourage efficient entry.

Subsidises productively inefficient entry for highly speculative long-term dynamic efficiency benefits

The reasonably efficient competitor approach is focused on promoting new entry, and does this by the wholesale service provider subsidising the new entrant. This potentially drives productively inefficient short-to-medium term entry that would have to be funded in the short-to-medium term through either setting higher prices for our customers, or providing lower dividends to shareholders. We have assumed the subsidy will be funded by our customers. IPART justifies the cost standard on the basis that the promotion of entry and competition will in the longer term result in dynamic efficiencies and benefits to consumers in the form of lower prices or better quality services.

Sydney Water does not believe there is a reasonable expectation competition over the longer term will result in the lower prices and better quality services that outweigh the potential short-to-medium term costs. By using this standard to promote entry, the access price is inappropriately allocating cost and risks that should be borne by the new entrant onto our customers. Sydney Water maintains there are unlikely to be the long-term benefits to customers from the reasonably efficient cost standard to offset the short-to-medium term inefficiencies, in light of such things as:

- the more modest gains identified by the Productivity Commission in urban water compared with other sectors from promoting effective competition
- new entrants having implemented a price parity policy with Sydney Water. This means that any cost savings or efficiencies implemented by a new entrant are not being passed onto customers. The entrants have also provided recycled water solutions and it is unclear whether customers view recycled water solutions as a better service.
- the type of competition likely to be promoted through any subsidy. It is not promoting retail competition for end-use customers. It is competition for the market and providing the servicing solution to the developer. Once the developer chooses the supplier, it is a monopoly retail supplier to end-users. This provides very limited opportunity for end-use consumers to benefit and switch retailers or suppliers in practice, unless they move developments.

Given the proposed efficiency trade-off and the speculative nature of the long-term benefits from competition, IPART should provide a robust analytical framework that allows it to assess the proposed trade-off. We believe IPART should demonstrate why a reasonably efficient competitor standard, with its known short-to-medium term inefficiencies will better promote the long-term interests of consumers than an efficient entrant competitor standard.

Finally, if IPART chooses to adopt the reasonably efficient competitor standard and believes there will be greater dynamic efficiencies associated with promoting entry into the sector over time, then it should similarly follow that the reasonably efficient competitor cost should decrease over time as well. It is not clear from IPART's approach that such efficiencies have been built into the costs.

Absence of economies of scale and scope for new entrants

We do not agree with the presumption that new entrants will have higher costs than the incumbent due to an absence of economies of scale.

To date, entry to the market in Sydney and the Hunter has only been through utilities owned by large developers. This has sometimes involved providing a multi-utility offering.

The fact new entrants may be owned by the developers means it should not be presumed they are at a competitive disadvantage. The relationship new entrants have with large property developers may provide them with access to large scalable billing systems either owned by the property developer or acquired by a third party which may not otherwise be possible to that entrant. One new entrant has even claimed that it can supply services at half the cost of the existing incumbent (Source: http://flowsystems.com.au/water/benefits/more-affordable-choice/). To the extent new entrants supply multi-utility offerings (for example, energy and water) they have advertised the 'capital efficiencies' or economies of scope they can achieve in the supply of services. The ability to supply across multiple products suggests that entrants (acting as integrated suppliers of services) can exploit economies not available to Sydney Water.

Implementation – options, interim arrangements and length of determination

IPART outlines three potential methods for calculating the proposed minus and facilitation costs. The implementation options could equally apply if the alternative avoidable cost or equally efficient competitor standard were adopted.

We generally agree with IPART's assessment of the three options and believe each is applicable or preferable in certain circumstances. Given the current state of the market, a hybrid approach is preferable and best promotes a commensurate level of certainty. This involves a combination of:

- Option 1, applying a set percentage or schedule of reductions (depending on the types of services provided by the wholesale customer) for each pricing component for all schemes in the first instance
- Option 3, of IPART determining prices on a scheme-by-scheme basis, to the extent that either party believes there is a need for more scheme-specific costs to be considered due to the bespoke nature of services being provided.

We envisage this approach could work in practice such that:

- Option 1 would be applicable for those simple schemes involving retail billing services and local reticulation. We believe most minus components could be sufficiently represented by a system wide average deduction. Facilitation savings relating to the provision of recycled water as an additional service may be better addressed via a schedule of values. This reflects the type of market entry that we have seen to date.

- Option 3 might apply for new greenfield developments where the entrant wishes to supply larger lead-ins, pumping stations and reservoirs. It would not be feasible to develop an average or schedule of values that could cover all potential scenarios involving larger infrastructure provision.

Sydney Water believes Option 2, where IPART sets a methodology, may be more appropriate in the longer term. Although, if applied currently, a methodology is likely to involve high administrative costs and lengthy arbitration that would promote further uncertainty. As the market matures we will develop a better understanding of how competition evolves, the type of schemes that will emerge and the types of services that will be supplied. With this, the introduction of a methodology could result in a lower regulatory burden and promote more commercially negotiated outcomes. We see commercial outcomes as preferable in the longer term, and believe our current track record of taking a positive and constructive approach to access requests and negotiations, lends itself to achieving such results. However, for any methodology to be successful it should be based on a set of principles. These principles should retain flexibility and adaptability to adjust easily to changing market conditions. We would not be supportive of Option 2 if it were to involve a more prescriptive methodology, such as IPART's developer charges methodology.

We support setting an interim price where it is required and the appropriate scheme-specific price cannot be estimated in a timely manner. Sydney Water believes any interim price should be based on Option 1. This should apply until IPART determines an appropriate scheme-specific wholesale price. We also support the use of a 'true-up' process between the interim and final price, once determined. Sydney Water does not support the non-residential price being used as an interim price. This would incentivise inefficient entry driven by a short-term arbitrage opportunity and is not consistent with promoting the long-term interests of customers.

Finally, as this is a new area of regulation, we have a strong preference for IPART setting the initial wholesale pricing determination for a period of no more than five years. This provides an opportunity for review within a set timeframe, and ensures IPART can test how the approach that has been adopted works in practice. After this, we believe there is scope to consider a more open-ended determination.

Next Steps

Sydney Water appreciates this is a new area of regulation IPART is introducing. In line with our approach of being constructive and positive in dealing with access issues, Sydney Water is more than happy to follow up with IPART and provide further details on any of our positions. This is particularly the case given that the next steps of the process are the Draft Determination and public hearing.

1 Introduction

This submission provides Sydney Water's preliminary views on the various issues raised, and proposals put forward, by the Independent Pricing and Regulatory Tribunal (IPART) in its *Prices for wholesale water and sewerage service – Discussion Paper, April 2016* (the Discussion Paper). IPART has only considered many of these proposals at a high, or principle, level.

In order to contribute to the consultation process, we have attempted to respond to the issues raised and address IPART's specific questions with as much detail as possible. Sydney Water understands that this is a new form of regulation in the NSW water market, which has particular challenges associated with it.

While we have used our best endeavours to respond meaningfully to the issues raised by IPART, we have found it difficult to respond where there has been limited detail or information provided. Therefore, in some instances we have had to limit our response, or have had to base our response on our own interpretation of what IPART has suggested. It would be very useful to be given an opportunity to provide feedback to IPART on some potential worked numerical examples in order to assist us in interpreting what is being described in the Discussion Paper.

If it is still IPART's intention that the next step in this process is to go to draft Determination, we would be willing to provide further assistance and detail to IPART, after some of these proposals have been further developed.

We may also change our position on specific issues after considering the responses of other stakeholders to the Discussion Paper.

From this, our submission includes Sydney Water's assessment of the Discussion Paper using the following structure:

- Chapter 2 assesses: the definition of wholesale services and customers; wholesale pricing objectives; and likely competition that will emerge from wholesale pricing.
- Chapter 3 responds to IPART's preferred pricing approach, including retail-minus, using Reasonably Efficient Competitor costs as the cost standard and how it proposes to account for facilitation costs or savings.
- Chapter 4 provides our assessment of IPART's proposed options for calculating and implementing retail-minus.
- Appendix A summarises Sydney Water's responses to each of the 29 questions posed by IPART for stakeholder comment.
- Appendix B provides some context on the precedent for the retail-minus approach.
- Appendix C describe scenarios of market entry and presents the likely minus and net facilitation cost categories for each of these scenarios.
- Appendix D outlines a potential model analytical framework for IPART may wish to use to demonstrate and quantify dynamic efficiency gains
- Appendix E includes further detail of our interpretation of appropriate wholesale pricing formula
- Appendix F is an expert report from consultants Houston Kemp commenting on the reasonable efficient competitor cost standard.

2 Objectives of wholesale pricing

Key messages

- **Definitions** – IPART's proposed definitions of wholesale services and customers are largely appropriate. Some minor wording changes should be made to reflect:
  - the upcoming *Water Industry Competition Amendment (Review) Act 2014* (the Amended WIC Act)
  - the potential for bundled services
  - other parties that may seek wholesale services but are not required to have a licence under the Amended WIC Act (eg there is no licence required to retail to large non-residential customers or to schemes of less than 30 small retail customers).
- **Primary objective** – We agree with IPART's stated principal objective of setting wholesale prices that will encourage efficient competition. This should lead to longer term benefits of lower prices for all consumers or value added services.
- **Secondary objectives** – As well as encouraging efficient entry, the approach to determining wholesale prices should seek to:
  - ensure cost recovery for costs prudently incurred by the incumbent
  - avoid cross-subsidies
  - support the continuation of postage-stamp pricing
  - minimise administrative burden and costs.
- **Scope for competition** – It is important to consider the scope for the market to develop. Currently, and under the Amended WIC Act, there is only a very limited form of competition in the NSW urban water sector. In practice, there is only competition for the market instead of competition in the market. Rather, developers choose the service provider (and retailer) for water and/or wastewater services. End-use customers only have 'choice' to the extent that they choose to buy or rent a property in that particular area. For the large majority of customers, water and wastewater service provision are not primary considerations in their choice of residence or business location.
- **Postage stamp pricing** – IPART's Discussion Paper assumes that wholesale customers will continue to price their services at the relevant postage stamp price set for the local public utility. There is no legislative or regulatory requirement for wholesale customers to do so, unless they are declared monopoly service providers and their prices are regulated.

This chapter responds to IPART's discussion of the context for this review. It presents our views on:

- IPART's proposed definitions for wholesale customers and wholesale services
- appropriate objectives and principles for setting wholesale prices
- the type of competition that can, and should, be promoted by wholesale pricing.

2.1 Definition of wholesale services and customers

We have some minor concerns with the wording of the proposed definitions of wholesale water and sewerage services and customers in the Discussion Paper, namely, that the definitions:

- do not capture all future changes under the Amended WIC Act, including that retailers to certain customers will no longer be required to obtain a licence
- may not capture water or wastewater services that are sold as a bundled service
- may require Sydney Water to provide wholesale services to wholesale customers whose end-use customers are outside our area of operations.

The following suggested wording changes address our particular concerns. We have focused on the definitions relating to Wholesale Water Supply Services, however all suggested amendments are also applicable for Wholesale Sewerage Services (except as outlined below).

> ***Wholesale Water Supply Service*** *(for Sydney Water) means any water supply service supplied by Sydney Water to any Wholesale Water Supply Services Customer in that Wholesale Water Supply Services Customer's capacity as an on-supplier of that water supply service, whether on-supplied separately or as part of another or new service.*
>
> ***Wholesale Water Supply Services Customer*** *means each of the following:*
>
> *a) a public water utility;*
>
> *b) a person who has a licence or approval under the WIC Act; ~~a licensed retail supplier, or person required to hold a retail supplier's licence, under the WIC Act;~~*
>
> *~~c) a licensed network operator, or person required to hold a network operator's licence, under the WIC Act;~~*
>
> *c) ~~a water supply services supplier that~~ a person who is exempt from the requirement to obtain a ~~retail supplier's~~ licence or ~~network operator's licence~~ approval under the WIC Act*
>
> *d) [**(water supply)** - a person who is requesting or using the supply of a water supply service to supply to a Large Customer or Non Category A Scheme Customer; and]*
>
> *d) [**(sewerage)** – a person who is requesting or using the supply of a wholesale sewerage service to supply to a Large Customer or Non Category A Scheme Customer where that customer is in Sydney Water's area of operations; and]*
>
> *e) a local council,*
>
> *but excludes:*
>
> *f) a person who is requesting or using the water supply service to supplement the supply of Recycled Water to other persons;*
>
> *g) [others].*
>
> ***Large Customer*** *means a person who is not a small retail customer under the WIC Act.*
>
> ***Non Category A Scheme Customer*** *means a small retail customer premises that does not form part of a category A scheme under the WIC Act.*

2.1.1 Potential issues raised by IPART

In its Discussion Paper, IPART has sought feedback on a number of issues that require further consideration given the diversity of potential wholesale arrangements, such as:

- service transformation (eg where potable water is used to top-up recycling)
- where customers do not have physical connection to our network but may still be a wholesale customer through tankering
- or where the end-use customer is located outside our area of operations.

Our views on these matters are set out below.

Potable top-up for recycling schemes

Potable top-up for recycling schemes should not be included as a wholesale service in its own right as the wholesale customer is not on-supplying the water as a potable water service. We do not usually provide a potable connection directly to a recycling plant. Rather, we provide a potable water connection to a property and it is up to the owner of the property to enter into an agreement with the recycling plant for the use of that water. Also, in the event that the wholesale customer is the provider of water services to a development, we are essentially blind to how the wholesale customer uses the potable water within its area of operations.

From a practical perspective, under a retail-minus approach, we are uncertain how potable top-up could be treated as a wholesale service. That is, there is a question over which retail price you would use as a starting point. As the recycled water plant is not on-selling potable water, the retail-minus principles for wholesale potable water do not apply, and there is no regulated recycled water retail or wholesale price. From this, we do not believe potable top-up should be included as a wholesale service.

Where potable top-up occurs to date, Sydney Water appropriately recovers revenue for the provision of this service via retail prices. However, if additional expenditure is required by Sydney Water to provide top-up for the recycling plant, Sydney Water considers that our customers should not be required to fund this additional work through an increase in the retail price. In the event this were to occur we would likely seek to enter into a commercial agreement with the wholesale customer to cover these costs.

Stand-alone schemes and other schemes with no physical connection to Sydney Water (including tankering)

Schemes that have no physical connection to Sydney Water's infrastructure should not be included as wholesale customers. The proponents of these schemes are not purchasing any services from Sydney Water to on-supply to their end-use customers. Practically, this means that there is no basis on which to calculate a wholesale service price. If IPART is concerned that this may have an impact on outcomes it wishes to achieve (eg providing new entrants with an ability to charge postage stamp prices to their end-use customers or ensuring entry is not based on an arbitrage opportunity), this would need to be addressed via another mechanism, not the wholesale price determination.

We note that it is possible for wastewater schemes to not have a physical connection but still indirectly rely on the Sydney Water network to provide services to their end-use customers. In

particular, Sydney Water has some concerns about schemes that propose to tanker waste to a private treatment facility as a long-term wastewater management solution, rather than directly connecting to Sydney Water's wastewater network or discharging appropriately to the environment through a facility that has an Environmental Protection Licence.

We believe that, for a new scheme, long-term tankering is likely to be an inefficient, high cost solution that does not provide the best service for customers. This is unlikely to represent the best outcome for society. However, as for truly stand-alone schemes, the proponents do not directly purchase a service from Sydney Water. At this stage, our preliminary view is that this issue would be better dealt with through licensing, rather than wholesale pricing.

Schemes outside our area of operations

We do not believe that wholesale prices should apply to schemes that will service end-use customers outside of our area of operations. This may be contrary to our Operating Licence. Practically, this does not work under a retail-minus wholesale pricing approach, as we would not collect any retail charges from those end-use customers in the absence of the wholesale service. In our view, this type of wholesale service would be better dealt with as an unregulated commercial agreement.

IPART should consider providing a general exclusion in the wholesale determination that Sydney Water is not obliged to supply wholesale services where the end-use customer is outside its area of operations (even if the supply to the wholesale customer occurs within our area of operations).

2.2 Wholesale pricing objectives and guiding principles

In the Discussion Paper, IPART sets out its objective in determining wholesale prices for water and wastewater services as follows:

> … to create a level playing field, so that new entry to the water and sewerage services markets occurs where it is efficient. That is, that new entrants or alternative suppliers to Sydney Water and Hunter Water can compete where they are efficient, leading to overall least cost supply, enhanced service levels and efficiency gains in the water and sewerage services markets[1].

We agree with this objective. As a matter of economic principle, market entry should be facilitated where it encourages the efficient use of and investment in water and wastewater infrastructure. It therefore follows that wholesale pricing should facilitate market entry where:

- it is incrementally cheaper for the new entrant to supply the water or wastewater service compared to Sydney Water or
- the new entrant is providing value added services that the end-use customer is willing to pay more for, compared to what it would have paid Sydney Water for its services.[2]

[1] IPART, *Prices for wholesale water sewerage services – Discussion Paper*, April 2016, p 2

[2] Further, to the extent new entrants provide 'green solutions' outside of an explicit NSW Government directive, these should not be subsidised by the postage stamp price paid by the broader customer base. If customers wish to buy a premium product offered by a new entrant, they should be willing to pay for it at premium prices.

In both of these circumstances, efficiency is promoted for the benefit of all consumers. However, if these conditions do not hold, there is potential for the new entrant to increase total costs without providing a lower price or better service that customers are willing to pay for over the longer term.

We note that in its recent paper on its business retail price review 2016, Ofwat suggested that artificially raising prices in the short-term did not protect customers and was not necessary to stimulate efficient entry. As Ofwat stated:

> We accept that the cost allowances we have made for incumbents (which may benefit from economies of scale) may not always reflect the costs of new entrants. In setting price controls we need to consider carefully our statutory duties, including how to protect the interests of consumers, wherever appropriate by promoting effective competition. Artificially raising prices above efficient levels would not appear to protect customers or be necessary to encourage efficient entry.[3]

In developing wholesale prices for the NSW urban water market, we agree that the protection of customers' interests should be a priority over promoting entry, especially where this entry is inefficient.

Efficient market entry should lower the total costs of supply and allow customers to choose their preferred price/quality trade-off. Over time, average prices will fall because the total cost of supply falls. If the initial prices reflect costs, increases in efficiency brought by competition will mean reductions in prices for the same (or better) level of service.

Conversely, inefficient entry increases the total costs of supply and average prices. It can lead to lower (or similar prices) for a small number of customers serviced by the new entrant, at the expense of many other customers, particularly those who pay geographically-averaged prices. Based on the current market, this would see lower (or similar) prices for around 2,500 customers of new entrants which would be at the expense of 1.8 million customers who would see an increase in their prices with no corresponding increase in the level of service their receive.

As well as encouraging efficient entry, we consider that the approach to determining wholesale prices should seek to:

- ensure the recovery of costs prudently incurred by the incumbent (including contributions to fixed and common costs)
- support the continuation of postage-stamp pricing (we note that IPART's Discussion Paper appears to assume that this will apply for both the incumbent's and the new entrant's customers) and
- minimise administrative costs.

In our view these objectives align with the *Water Industry Competition Act 2006* (the WIC Act) and the Amended WIC Act. For example, the objective of Part 3 of the WIC Act is to promote the economically efficient use and operation of, and investment in, significant water industry infrastructure, thereby promoting effective competition. Part 3 Division 7 requires that access

[3] Ofwat, Business retail price review 2016: Statement of method data table requirements, May 2016, p 10

prices should be consistent with the maintenance of postage-stamp pricing. These provisions remain in the Amended WIC Act.

2.3 The type of competition being promoted

We agree with IPART's high level objective in determining prices for wholesale services and the notion that competition can be used to encourage productive, allocative and dynamic efficiency. However, we consider that it is important to understand the type of competition that IPART envisages and the behaviour and efficiencies that this may incentivise. IPART has indicated that it is focused on setting wholesale prices to encourage dynamic efficiencies, but has given no indication of how these dynamic efficiencies would materialise, their nature or their magnitude. We consider IPART should look to demonstrate and quantify the future dynamic efficiencies to establish that these do in fact outweigh any short-to-medium term inefficiencies. Sydney Water does not believe that many of the purported dynamic efficiency gains are likely to emerge in the longer term for the reasons outlined below.

Competition for the market

IPART refers to the incumbent and new entrants 'competing on a level playing field'. We note that the 'competition' envisaged here appears to be the market for retail service provision to end-use customers (as opposed to the market for the resource). There are two main market-based options that are designed to introduce competitive markets and/or contestable arrangements for the supply of water and wastewater services to end-users. These are:

- competition **in** the market ,when consumers can choose between a range of competing providers for the supply of a good or service and
- competition **for** the market, which involves allowing firms to compete for the right to provide water and wastewater services to customers in a defined geographic area.

Figure 1 provides an illustration that contrasts competition **in** the market and competition **for** the market.

At present there exists a form of competition for the market, through which incumbents (may) compete with new entrants to provide services to infill developments (re-developments) or new greenfield developments. Choice in this instance is exercised by the developer – not end-use customers, who have no say in either the services provided or the provider – and in some cases the developer and the service provider may be horizontally-integrated businesses. Also, we understand that developers may be incentivised by local planning requirements that provide them with an additional development yield or other options that benefit their bottom-line where they provide recycled water.

It is not clear that this form of competition will lead to the dynamic efficiencies that IPART is hoping wholesale prices will encourage. The benefits of competition are most likely to emerge when end-use customers are able to choose their service provider.

There is currently no opportunity for residential end-use customers to choose or switch their service provider in the NSW water market. As noted by the Hon. Duncan Gay (the then Minister for Roads and Freight, and Vice-President of the Executive Council) in the Second Reading of the

Water Industry Competition Amendment (Review) Bill, "[f]ull retail contestability has not been adopted in any urban water market, here or overseas, of which the Government is aware", and "while the Government has considered the option of full retail contestability it has chosen not to adopt that model"[4]. He then went on to state:

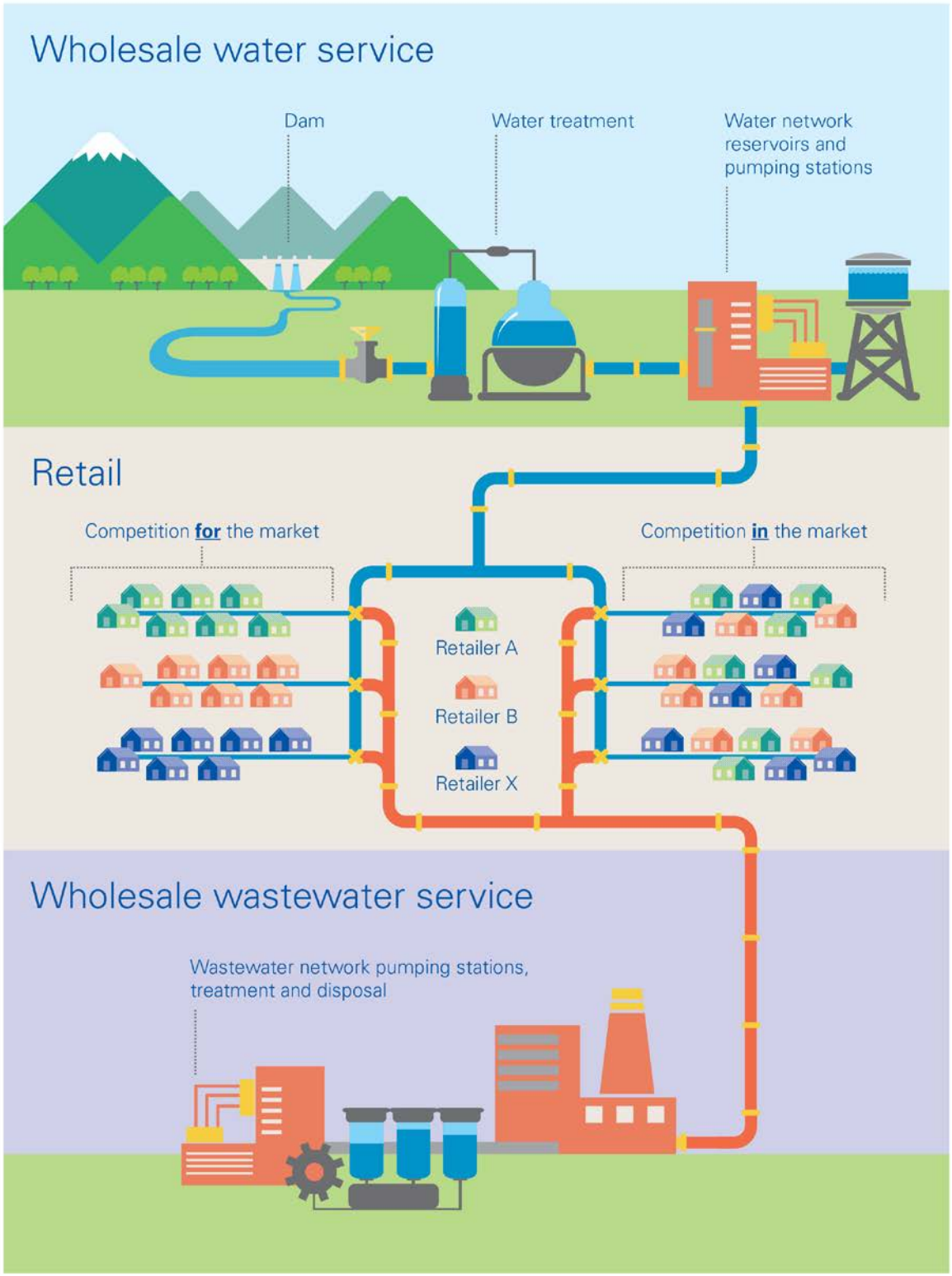
> Risks could arise because under a full retail contestability model retailers have an incentive to increase sales in order to increase profits. In addition, retailers are not responsible for the upstream effects of rising demand such as needing to invest in additional capacity. The costs of such investment are ultimately borne by customers.[5]

Under the Amended WIC Act, there may be greater scope for end-user choice for customers who are large non-residential customers only. The Amended WIC Act removes the requirement for a retail supplier's licence in order to supply retail services to large non-residential customers. It is yet to be seen if this will result in these types of customers choosing to receive retail services from alternative retailers. As the supporting regulation for the Amended WIC Act is still to be developed, it is unclear how this might work in practice. For example, the current Customer Transfer Code of Conduct only covers the transfer of a customers between the incumbent utility and a licensed retail supplier. On the whole, however, the large majority of end-use customers do not have a choice of water or wastewater supplier and/or retailer.

[4] Parliament of New South Wales, Legislative Council, *Water Industry Competition Amendment (Review) Bill 2014, Second Reading (Hansard)*, 15 October 2014, p 939.

[5] Parliament of New South Wales, Legislative Council, *Water Industry Competition Amendment (Review) Bill 2014, Second Reading (Hansard)*, 15 October 2014, p 948

Figure 1 - Competition **in** the market vs competition **for** the market



Further, any scope for competition at present will be limited due to the following market characteristics and circumstances:

- limited opportunity to effectively compete on retail service provision, given the majority of service costs reside in the infrastructure associated with storage, transportation and treatment (ie the capital intensive nature of water and wastewater service provision)
- the impact of postage stamp pricing on the degree to which new entrants can compete with incumbents (whose prices are averaged across the area of operations and do not reflect the cost of providing services in particular areas)
- use of a line-in-the-sand Regulatory Asset Base (RAB) for setting regulated retail prices. It may be difficult for new entrants to complete with incumbents if incumbents have regulated prices that are insufficient to recover the replacement value of their assets (see Section 3.2.3).

If the uptake of wholesale services and market entry is expected to be low over the short-term, it follows that the approach to wholesale pricing should reflect this. That is, the administrative complexity and regulatory burden of the pricing approach should be commensurate to the amount of expected wholesale activity.

To date, while there is no legislative requirement to do so, new entrants to the market have implemented a price parity policy with Sydney Water. From this, customers of new entrants do not (and would not) see any benefit from the efficiencies a new entrant may be able to introduce. If this continues into the future, Sydney Water is unable to see that wholesale pricing under a retail-minus reasonably efficient competitor approach will lead to the dynamic efficiencies in the NSW urban water market that would normally be seen in promoting competition.[6]

Appropriate regulation of retail pricing

Price regulation is primarily intended to protect consumers from abuses of monopoly power and encourage efficiency by simulating the effects of competition. Under the existing legal and regulatory arrangements, IPART regulates prices for water and wastewater services provided by declared monopoly utilities only. Consistent with the rationale for price regulation, we believe that price regulation of new entrants (for example, through an exclusive franchise) should also be considered. Even in those instances where there is competition for the market, new entrants will still be localised monopoly suppliers of services to end-use customers. The legal basis for this regulation to protect customers from any exercise of market power could potentially be established through declaration of the relevant services/providers as monopoly services. This can occur as part of the WIC Act licensing process, or if legally permissible a condition of access.

[6] On its website, Flow Systems claims that Central Park Water charges 10 cents less for recycled water, than Sydney Water charges for drinking water. However, unlike Sydney Water, Central Park Water charges a service charge for recycled water, (see http://centralparkwater.com.au/about-recycled-water/mythbusters/). Sydney Water also charges below its drinking water price for its recycled water schemes.

3 Response to IPART's preferred pricing approach

Key messages

- **Retail-minus** – We strongly support using a retail-minus approach to setting wholesale prices. This is the only viable wholesale pricing option within the current environment of vertically-integrated distributor/retailers and postage stamp pricing.
- **'Reasonably Efficient Competitor' costs** – We believe an 'equally efficient competitor' cost standard, rather than a 'reasonably efficient competitor' best promotes the long-term interests of customers. This will encourage entry where a wholesale customer is at least as efficient as the public utility in the provision of that same service.
- **Facilitation costs** – We support IPART's proposed treatment of net facilitation costs, including its view that this component should take account of any additional costs or savings that the public utility may incur or benefit from in providing the wholesale service. These should be calculated with reference to any costs or savings that would be incurred if the public utility were providing the water and/or wastewater services to the end-use customer.
- Provision of recycled water as an additional service is unlikely to result in large infrastructure-related facilitation savings, as any demand reduction as a result of these schemes is likely to be very small in comparison to the overall growth that would trigger network augmentation.
- For simple schemes, we have provided a description of potential net facilitation costs, and we believe it would be possible to develop an average cost for 'standard' minus and net-facilitation costs. Where schemes involve any capital expenditure on infrastructure beyond basic local reticulation, it will be difficult to estimate net facilitation costs up-front.
- **Growth plans** – Wholesale service providers' growth plans should be appropriate instruments to determine the level of cross-subsidy required to maintain postage stamp pricing in the absence of water, wastewater and stormwater developer charges (which are currently set to zero).
- **Developer charges** – In principle, we agree with IPART's proposed treatment of facilitation costs with no developer charges. That is, the wholesale customer should not be required to fund costs that Sydney Water could otherwise recover through retail prices. Conversely, IPART also needs to consider the potential impact of a wholesale pricing approach on 'out-of-sequence' development, to ensure that costs and risk normally borne by developers are not transferred by the wholesale access seeker to our end-use customers.
- **Unregulated prices** – We are concerned that allowing for unregulated price agreements removes the protections provided by the regulatory framework. We recognise that unregulated price agreements are allowed under the *Water Industry Competition Act 2006*. However, the two approaches are not comparable, given that the legislative basis is different and there is scope for wholesale prices to be re-regulated through a future IPART Determination.

Sydney Water agrees with the adoption of a retail-minus approach for pricing wholesale services. We consider this best meets the objective of encouraging efficient new entry.

While we support IPART's proposed treatment of net facilitation costs in principle, we do not support IPART's preliminary view to use a 'reasonably efficient competitor' (REC) as the standard for calculating other costs. We engaged HoustonKemp Economists (HoustonKemp) to provide independent expert economic advice on the appropriateness of the REC standard versus the equally efficient competitor standard. The HoustonKemp report is provided as an attachment in Appendix F. Based on this advice and our understanding of the NSW urban water market, we believe that an equally efficient competitor cost standard will better promote the long-term interests of end-users.

This chapter responds to IPART's Discussion Paper on its preferred pricing approach by setting out our views on:

- a retail-minus approach to determining prices for wholesale services
- IPART's proposal to use a reasonably efficient competitor cost benchmark, rather than the costs of an equally efficient competitor
- IPART's proposed treatment of facilitation costs
- how 'minus' costs and net facilitation costs would be identified in practice
- how developer charges should be accounted for when a new entrant connects to our system
- IPART's proposal to allow unregulated price agreements for wholesale prices.

We note that in providing our responses we have found it challenging to respond to aspects of the Discussion Paper in its current form. Future consultation documents would benefit from the inclusion of worked numerical examples.

In Appendix C we describe a number of potential wholesale servicing scenarios and set out categories of 'minus' and net facilitation costs that we envisage would apply to each scenario.

3.1 Overall pricing approach – retail-minus

In its Discussion Paper, IPART expressed a preliminary view that a **retail-minus (plus net facilitation costs)** approach is the best method for pricing wholesale services at this time. In broad terms, a 'retail-minus' approach results in a wholesale price equal to the regulated retail price less the net costs avoided (or incurred) by the incumbent as a result of providing the wholesale service (or, conversely, as a result of not providing the contestable services).

IPART's preliminary view is consistent with its stated objectives in determining wholesale prices. Using a retail-minus approach to set access prices has also been supported by IPART previously.[7]

Sydney Water has previously noted its strong support for a retail-minus approach to wholesale pricing in our response to IPART's Issues Paper on our current retail price review and at the public hearing on wholesale pricing in December 2015. Retail-minus is the only pricing approach that will

[7] See IPART, *Investigation into Water and Wastewater Service Provision in the Greater Sydney Region*, Final Report, October 2005, p.46

support efficient market entry where there is a vertically-integrated incumbent and a postage-stamp pricing policy.

Retail-minus is also consistent with the pricing principles under the WIC Act's third party access regime and the approach determined by the Australian Competition and Consumer Commission (ACCC) for access to Sydney Water's declared wastewater networks.

At times, the retail-minus approach (or the equivalent 'efficient component pricing rule') has been criticised in practice and in academic literature. However, we note that this has generally occurred in sectors such as telecoms, where the retail market was not competitive. This meant monopoly rents were being embedded in the access price, creating a barrier to entry and limiting the allocative efficiency gains from entry.[8] This is not an issue for wholesale water and wastewater services, given end-use retail prices are regulated and set to reflect the efficient costs of service provision across the geographic region we serve.

Appendix B provides some context on the precedent for the retail-minus approach.

3.2 The cost standard – Equally Efficient Competitor or Reasonably Efficient Competitor?

In setting out its preliminary view, IPART effectively separated the 'minus' to be deducted from the regulated retail price into two components:

- The costs that are incurred from the wholesale connection point to end-use customers (ie the costs of the contestable services). IPART proposes to treat these as REC costs.
- The costs that are avoided (or incurred) by the wholesale service provider in providing the wholesale service to the wholesale connection point. IPART proposes to treat these as net facilitation costs.

This is considered to be different from an avoided (or avoidable) cost approach to applying a retail-minus approach, which is based on **all** the costs avoided (or incurred) by the wholesale service provider as a result of providing the wholesale service (ie the costs avoided (or incurred) as a result of not serving end-use customers). The difference is also in the cost standard used to estimate the costs incurred from the wholesale connection point to end-use customers. IPART considered two cost standards:

- an 'as efficient' or equally efficient competitor (EEC), where the costs reflect those that would be incurred by the incumbent
- a 'reasonably efficient' competitor, where the costs reflect those that would be incurred by a reasonably efficient competitor, who may not have the same economies of scale or scope as the incumbent.[9]

IPART's view is to adopt a REC cost standard while the competitive market is developing. In proposing this approach IPART has prioritised the dynamic efficiency gains that may be achieved through increased competition in the long-term over the short-to-medium term productive and allocative efficiency that may result from the economies of scale and scope associated with a

[8] Tye, W., 'The pricing of inputs sold to competitors: A response', *Yale Journal on Regulation*, 11 (1):203-24, 1994.
[9] IPART, *Prices for wholesale water and sewerage services – Discussion Paper*, April 2016, p 32.

vertically-integrated service provider. This approach effectively involves the provision of a subsidy to new entrants where their costs are greater than the incumbent's.

IPART is assuming that promoting entry will create long-term efficiencies that outweigh any short-to-medium term increases in customer bills (that would be required to fund the subsidy under the REC approach). We think, on balance, that this assumption should work the other way. While we acknowledge that IPART is attempting to balance competing interests, we are concerned that an approach which raises short-term costs to pursue uncertain long-term benefits is not in the best interests of customers.[10]

To this end we engaged HoustonKemp to consider the appropriateness of using a REC cost concept for determining the minus within a retail-minus wholesale pricing methodology to promote efficient entry in the NSW urban water market. HoustonKemp concluded that the conditions in the NSW urban water market do not exist to justify use of REC standard as part of a retail-minus approach. Instead it would be most appropriate for IPART to use an EEC cost standard, which involves adopting Sydney Water's actual costs as the cost benchmark. Sydney Water also believes that based on conditions in the NSW urban water market, there is not a reasonable expectation over the long-term that the benefit from promoting competition outweighs the short-to-medium term inefficiencies from using the REC cost standard. For this reason we believe an EEC cost standard better promotes the long-term interests of customers. If IPART adopts a REC standard, we believe it will inappropriately allocate risks and costs to the customer (or incumbent) that are in this instance better borne by the new entrant.

3.2.1 REC versus EEC – the need for IPART to undertake a proper assessment

Sydney Water is concerned by the lack of any robust analytical framework or economic model used by IPART in choosing the REC standard. Given the lack of regulatory precedent for setting access prices, its well-known short-to-medium term inefficiencies, and the highly speculative nature of any dynamic efficiency benefits, we believe such work is necessary to assess the trade-off. IPART should quantify and demonstrate when a reasonably efficient entrant cost standard will preferable to an equally efficient entrant. It should then consider the factual question of whether those conditions are actually met in the NSW urban water market. We believe this is superior to simply asserting the existence of benefits and is an approach commonly used by regulators when assessing the appropriate form of regulation in both Australia and New Zealand.

To assist IPART in how we believe they should consider this issue, Sydney Water provides a stylised technical example and framework in Appendix D. This highlights the type of factual versus counterfactual economic modelling that we expect IPART should employ to establish whether a REC standard is likely result in better outcomes for customers. In particular, IPART should seek to measure and compare the overall welfare outcomes[11] from the decision to adopt a REC standard versus an EEC standard. In Appendix D, we demonstrate this can be done by estimating if and when the present value of consumer surplus over time is higher under a REC cost standard versus an EEC standard.

[10] Our views on the scope for market entry and resulting dynamic efficiency gains are set out in section 2.4.

[11] Given that monopoly rents (margins) are not embedded in the retail price there is zero profit. On this basis and for simplicity we have in the framework outlined in Appendix D that total welfare is equal to consumer surplus.

The approach will highlight such things as:

- the higher rate of price decrease that must occur over time under a REC standard to offset the initial artificially higher prices it yields
- the timeframe over which a REC standard might yield superior efficiency and consumer welfare outcomes to an EEC standard. Once this is known, a decision can be made as to whether this is an appropriate length of time to wait for these benefits to materialise.

Sydney Water notes the result of the stylised example in Appendix D demonstrates that whether a REC standard will result in better outcomes for society will be a combined function of:

- the initial price increase from the REC standard
- the discount rate
- the rate of price decrease or increase in consumer surplus under the REC standard, compared to the efficient cost standard.

Further, the framework shows that if IPART's priority is promoting entry, then we anticipate that in line with our economic framework in Appendix D, to see efficiency improvements built into the REC benchmark over time to capture the dynamic efficiency benefits.

3.2.2 Equally efficient competitor (EEC) cost standard

We consider that efficient new entry and competition under a retail-minus approach to wholesale pricing will occur when an EEC cost standard is used. That is, to meet IPART's pricing objective, the cost standard that should be used in the retail-minus approach should start with the incumbent's cost to provide the contestable service and then assess whether it is reasonable for a new entrant to provide that part of the service **equally or more efficiently**.

EEC costs should be the most a new entrant requires to provide contestable services. If this does not occur, new entry risks increasing the total costs of service provision (and/or reduce service quality). Using EEC costs in the retail-minus approach with regulated retail prices has the following effects:

- Efficient entry – ensures only entrants as or more efficient than the incumbent enter.
- Incumbent indifferent to entry – the incumbent is financially no worse off (through a contribution to fixed and common costs, including postage-stamp pricing) and hence is indifferent (in the short or long-run) between providing wholesale access or retailing to end-use customers.
- Incentives for cost improvements – for new entrants to earn margins in the short-run greater than the margins the incumbent is allowed, they must reduce costs without compromising service quality.[12]

For efficiency within the wholesale pricing approach to be retained, and to ensure end-use customers are no worse-off as a result of new entry, an entrant must be as efficient as the incumbent.

[12] Excluding the inefficient case where greater margins are earned by increasing downstream prices, but including the case where benefits (cost reductions) are passed on to end-use consumers.

We note that the EEC standard is typically used to set wholesale prices because of the certainty in realising efficiency benefits. Further, HoustonKemp, highlight that courts in Europe[13] when considering the appropriate cost standard for anti-competitive conduct dealings, have affirmed a preference for the efficient entrant cost standard on the basis that it:

- promotes efficient entry to the market
- ensures less efficient operators are not protected by competition law
- provides a readily objective self-assessment of compliance for incumbent firms.

3.2.3 IPART's proposed Reasonably Efficient Competitor (REC) cost standard and its implications

In considering IPART's proposal to apply a REC cost standard in setting wholesale prices, Sydney Water sought the independent advice of HoustonKemp. HoustonKemp's report (see Appendix F):

- discusses the differences between the REC and the EEC standard
- assesses the circumstances under which a REC cost standard may be relevant
- examines whether the REC standard is appropriate in the context of the NSW urban market.

HoustonKemp concludes that conditions in the NSW urban water market are such that the REC standard is more likely to lead to higher costs to consumers without any benefits from competition. HoustonKemp's view is that it would be in the long-term interest of customers to apply Sydney Water's costs (ie equivalent to an EEC standard) as a benchmark for determining the retail-minus price.

We do not support IPART's proposal to use a REC cost standard on that basis that:

- It is inconsistent with best practice regulation and its use in setting access prices is unprecedented.
- It assumes new entrants are at a competitive disadvantage due to an absence of economies of scale and scope.
- It effectively subsidises new entry, without any clearly articulated long-term benefits.
- Is not consistent with IPART's previous approach to regulating retail electricity prices.

Regulatory best practice

REC as a cost standard has not been used to set access or wholesale prices, but to test these prices for anti-competitive conduct or margin squeeze analysis. Setting an access price using a REC standard is to our knowledge unprecedented and as the HoustonKemp report notes, it is also not the favoured standard for undertaking margin squeeze analysis to assess the reasonableness of the existing access price.

It is important to note that historically these types of court assessments have occurred in markets where there are retail margins that could be competed away over time. The use of a higher cost standard is justified by the likelihood of benefits to society being achieved. However, in the case of

[13] See for example, in the UK see Dwr Cymru Cyfyngedig and Albion Water Limited and Water Services Regulation Authority [2008] EWCA Civ 536, paragraph 105.

the NSW urban water market these benefits are already built into a market where outcomes are regulated.

Assumption new entrants have no scale or scope economies

In our view it is not evident that new entrants would have higher costs than an incumbent due to an absence of economies of scale and to a lesser extent scope.[14] There are a range of reasons presented in HoustonKemp's report demonstrating why this might not be the case, including:

- metering activities are becoming a competitive service in the electricity sector and these may be able to be made available to the water sector
- customer billing systems are already available in an outsourced form in many sectors
- customer service activities are also often provided by outsourced centres that provide similar services to a number of businesses.[15]

In addition, we note that entry into the market in Sydney to date, particularly by the WIC Act licensees seeking wholesale services, has generally been by utilities owned by large property developers. In some cases, this has involved the provision of a multi-utility service. While it is not clear to Sydney Water how this could occur, one such entrant advertises that the provision of a multi-utility service provides an opportunity for "capital and efficiency savings for developers, owners and operators. These savings can be passed onto customers living within our communities".[16]

To the extent new entrants are owned by developers, they are also likely to have access to scalable billing systems or have the ability to obtain such services through third party providers. Where new entrants supply multi-utility offerings there are also potential economies of scope in the supply of services. It may even be the case that, as integrated suppliers of multi-utility services, new entrants can exploit economies that are not available to incumbents.

We also question whether such new entrants are subject to a competitive disadvantage when they are owned by developers, with whom Sydney Water is competing to supply services.

Subsidising new entry

IPART's proposed REC cost standard does not retain the economic efficiency properties that apply under an EEC cost standard. As the REC cost standard assumes that a reasonably efficient competitor would "have higher costs than current incumbents",[17] it would apply a higher cost level for the 'minus' in the retail-minus formula than under a EEC cost standard. This appears to be at odds with statements of some new entrants that they can design and construct "drinking water and wastewater solutions in NSW for up to half the cost of Sydney Water or Hunter Water".[18]

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[14] This is the argument used for infant industry protection. That is, emerging industries often do not have the economies of scale that their established competitors may have, and thus need to be protected until they can attain similar economies of scale.

[15] See HoustonKemp Economists, *Should Wholesale Water and Sewerage Prices Exclude Costs of a Reasonably Efficient Competitor?*, A Report for Sydney Water, 31 May 2016 p 8.

[16] See http://flowsystems.com.au/energy/water-energy/capital-efficiencies/

[17] IPART, *Prices for wholesale water and sewerage services – Discussion Paper*, April 2016, p 34.

[18] See http://flowsystems.com.au/water/benefits/more-affordable-choice/

Effectively, this approach is equivalent to providing a subsidy for inefficient entry. As noted in Section 2.2, Ofwat has recently assessed that such subsidies are not necessary nor required to ensure that efficiency and related benefits from competition are achieved.[19]

As well as providing for any cost differences due to differences in scale, IPART's proposed approach also provides for differences in asset valuations between an incumbent and a REC. IPART considers that "the reasonably efficient competitor cost should be based on the full value of assets" and that "this approach would result in a margin … that allows low-cost utilities to enter the market…".[20] We understand that this position is driven by the concern that the use of a line-in-the-sand RAB for setting an incumbent's regulated retail prices could limit the scope for market entry. This is because it may be difficult for new entrants to compete with incumbents if incumbents have regulated retail prices that are insufficient to recover the replacement value of a new entrant's assets.

We acknowledge this issue however, to the extent the costs of the REC benchmark are greater than those of the incumbent (or an equally efficient competitor), then the subsidy implied by the REC cost standard is higher. This is the case not just for asset values, but for asset lives, rate of return and any cost component relevant in the determination of the incumbent's regulated retail prices.

Finally, Sydney Water notes that, as outlined in Section 2.3, we understand that developers may be currently incentivised by local planning regulations to deploy recycled water solutions. These solutions allow the developers to increase the floor-to-space ratio within the development, which in turn increases the profitability of the developments. Given it is unclear whether recycled water solutions are cost effective in these developments, local planning authorities may be creating incentives for "rent seeking" behaviour by developers. IPART's REC benchmark may simply serve to subsidise and further encourage this behaviour for servicing new developments

Funding the subsidy

IPART's Discussion Paper is silent on the issue of how the subsidy created by the application of a REC cost standard should be paid for or funded.

One option is for an incumbent's shareholder to fund the subsidy through a reduction in dividends. However, we consider that this would be inconsistent with the broader regulatory framework, which provides a regulated business with a reasonable opportunity to recover the efficient costs of service provision. Another option would be for end-use customers to fund the subsidy through an uplift to the postage stamp price. We have presumed throughout our response that this cost will be borne by customers.

IPART justifies its approach on the basis that competition will, in the longer-term, result in dynamic efficiencies and benefits to consumers in the form of lower prices or better quality services. However, given the scope for market entry in the current environment (see Section 2.3) it is difficult to see how or when dynamic efficiency gains for consumers will be realised. Accordingly, as previously noted, we question whether it is appropriate for either our customers to bear the risk of funding speculative efficiency gains that are unlikely to materialise in the longer-term. Further, to

[19] Ofwat, *Business retail price review 2016: Statement of method and data table requirements*, May 2016, p.10.

[20] IPART, *Prices for wholesale water and sewerage services – Discussion Paper*, April 2016, p 33.

the extent that IPART believes this is possible, it should demonstrate the magnitude of the anticipated gains over an EEC approach.

Comparison with approach to regulating retail electricity prices

In adopting the REC cost standard, IPART notes that it has:

> previously applied a similar principle to retail electricity pricing, to recognise the costs of entry and the long-term value of competition – particularly the potential for gains in dynamic efficiency.[21]

We acknowledge that in some jurisdictions, where small customers are able to choose their electricity retailer, some form of headroom has been provided in regulated prices in order to encourage competition (that is, both new retail entry and customer switching). While we consider that retail-minus EEC costs is the correct approach to wholesale pricing in a postage stamp retail price environment, we recognise that there may be some circumstances where the inclusion of headroom can be justified. We anticipate that such headroom would be used to address a material disadvantage faced by a new entrant compared to an incumbent that is not related to efficiency.

For example, in the retail electricity market there is the view that the customer base of large incumbent retailers is more 'sticky' or loyal than for new entrants. This can present a barrier to customer acquisition and retention for new entrants (see Box 3-1 below). However, a key feature of the retail electricity market is that end-use customers can exercise choice, ie there is competition in the market (and most market contracts for electricity were/are set at a discount to the regulated price). Currently, this not how the market for water and wastewater services works in practice, as discussed earlier. The vast majority of water and wastewater customers in Sydney or the Hunter do not have the ability to switch water or wastewater service providers (without moving premises or potentially supplying their own infrastructure). The recent amendments to the WIC Act (yet to be enacted) do allow for a limited amount of competition 'in the market' to service industrial and larger commercial customers only. This would still limit full retail competition to a very small sub-set of customers within the NSW urban water market.

[21] IPART, *Prices for wholesale water and sewerage services – Discussion Paper*, April 2016, p 33.

Box 3-1 - Impact of incumbency on competition in the UK energy market

Impact of incumbency on competition in the UK energy market

In its submission to the UK Competition and Markets Authority (CMA) the energy regulator Ofgem discussed why incumbency may be having a negative impact on retail competition. According to Ofgem:

> The energy market is characterised by a significant proportion of 'sticky' consumers, who are unable or reluctant to shop around and switch to get a better deal. Whilst sticky consumers are not uncommon in markets, they are unevenly distributed across suppliers in the retail energy market. Most are with the legacy suppliers: those who had regional monopolies (or national in the case of British Gas) at the time the domestic energy markets were opened to competition.
>
> We are concerned that this uneven distribution of sticky consumers – the 'incumbency effect' – is likely to have negative consequences for competition in the energy market, beyond what might be expected from the existence of sticky consumers alone. It may have limited the benefits of competition materialising for all consumers, whether in the form of prices, better service or improved innovation. It also creates barriers to entry and expansion for independent suppliers, who are only able to compete for a subset of consumers – active consumers. Vulnerable consumers are more likely to be sticky consumers and therefore particularly disadvantaged by weak competition.[22]

We also note that the Terms of Reference for the regulation of electricity prices issued to IPART by the NSW Government required IPART to determine regulated prices that supported the long-term interests of consumers of electricity and the stability of the electricity market. IPART interpreted this as providing:

> … some discretion to set regulated prices above the efficient short run cost-recovery level to support competition, which will ultimately deliver benefits to customers. However, this discretion is limited by other requirements in the terms of reference.[23]

However, there is no such Government-mandated requirement in the determination of prices for retail water and wastewater services.

Finally, we note that in determining the appropriate amount of headroom for inclusion in regulated electricity prices, IPART had regard to the costs an **efficient** retailer would be likely to incur in acquiring and retaining customers in the competitive market.[24] That is, the cost standard was efficient, not reasonably efficient. We do not see how IPART's proposed use of the REC

[22] Ofgem, Incumbency in the retail energy market – Submission to the CMA, January 2015. www.ofgem.gov.uk%2Fofgem-publications%2F92601%2Fcmasubmissionincumbency.pdf&usg=AFQjCNEMwX9DbDw8-7LDFsWQ6zAg0tU5dg

[23] IPART, *Review of regulated retail prices and charges for electricity Final Report*, June 2013, p 14.

[24] IPART, *Review of regulated retail prices and charges for electricity Final Report*, June 2013, p 108.

benchmark in wholesale water pricing is comparable to its previous approach to allowing headroom for competition in regulated electricity prices.

3.3 Net Facilitation Costs

In general, we support IPART's proposed treatment of net facilitation costs. This includes IPART's position that net facilitation costs should take into account both costs to the wholesale service provider in providing the wholesale service, as well as any potential savings.

We propose a number of potential facilitation cost categories in Section 3.4.2 and Appendix C. This cost component would include any cost savings and/or costs that the wholesale customer creates for an incumbent as a result of wholesale service provision up to the point of the wholesale connection. This would also include any potential deferral of costs (which would be treated as a facilitation saving, to be passed on to the wholesale customer). The sum of these facilitation costs may be positive or negative and so in total they are represented as **net** facilitation costs.

We note that under IPART's retail-minus (plus net facilitation costs) approach, the combination of 'minus' costs set with reference to an equally efficient competitor's costs (as we have proposed) and net facilitation costs is equivalent to the avoided (or avoidable) cost standard that we originally proposed,[25] and which is traditionally used in calculating prices under a retail-minus approach.[26]

3.4 Retail-minus and net facilitation costs in practice

We are concerned that there may be some confusion in the Discussion Paper regarding the distinction between minus costs and net facilitation costs.[27] We have interpreted IPART's position to be that the 'minus' component should reflect **only** the contestable parts of the service that the wholesale customer provides (ie the costs from the wholesale connection point to the end-use customer). In addition, these costs are based on the service that would have been provided by the public water utility (ie those costs which have already been subject to prudency and efficiency tests).

The minus component costs are unrelated to the costs incurred by the wholesale service provider in providing the wholesale service, up to the wholesale connection point. Instead, these are recovered through the starting retail price and (potentially) facilitation costs components of the wholesale price, the facilitation component relates **entirely** to the impact on the other non-contestable parts of the service which the wholesale provider provides. As IPART notes, and we agree, these can be costs (positive) or savings (negative).

In addition, we note that the wholesale price reflects the costs of providing wholesale water and wastewater services to wholesale customers. These water and wastewater services will be on-sold to end-use customers. To the extent that additional services (such as recycled water) are also

[25] Sydney Water, *Our Plan for the future: Sydney Water's prices for 2016–20*, 30 June 2015, p 245.

[26] An appropriate manner in which to calculate net facilitation costs is to apply a net present value of a stream of annualised per unit forward looking costs incurred or saved, calculated using the incumbent's costs.

[27] For example, section 3.3.2 of the Discussion Paper suggests that the minus component should take into account the costs of providing the wholesale services. However, as IPART appears to define it elsewhere (section 1.3), the minus component should only relate to the costs from the wholesale connection point to end-use customers.

provided to end-use customers, it is only the impact of these additional services on the costs of providing wholesale series that is accounted for in the wholesale prices. Wholesale prices are not the mechanism through which new entrants recover the costs of providing additional services.

Accordingly, we propose that the wholesale price formula would be:

$$Wholesale\ Services\ Price = PSP — EEC + NF_A.$$

Where:

- *PSP* is the regulated postage-stamp price × number of end-use customers
- *EEC* is the incremental cost of an equally efficient competitor producing the final retail output and,
- NF_A is the net facilitation costs of providing access, which can be positive or negative.

Appendix E includes further detail of our interpretation of appropriate wholesale pricing formula.

The sections below describe the types of cost categories we expect to be included as minus and net facilitation costs. We are still considering how some of these cost categories may work in practice.

In Appendix C we describe a number of potential wholesale servicing scenarios and identify the minus and facilitation costs or savings we see as being associated with each scenario.

3.4.1 Minus costs

Under IPART's proposed approach in the Discussion Paper, minus costs appear to reflect costs from the wholesale connection point to end-use customers. These are effectively the costs of the contestable parts of the service that the wholesale customer provides to end-use customers.

At a minimum these costs would cover retail functions (for example, billing, metering and customer contacts) and the costs of operating and maintaining a small amount of reticulation infrastructure (which would have been gifted by the developer). We expect these types of cost deductions would apply for both infill (brownfield) developments, as well as greenfield developments.

If a scheme involves large infrastructure beyond the wholesale connection point (as may theoretically occur in a greenfield site), this appears to be proposed to be treated as a larger minus cost. Our understanding of the Discussion Paper is that this minus would be based on the theoretical costs of the infrastructure solution that would have been provided by the public water utility, not the actual costs incurred by the wholesale customer. This ensures that end-use customers of public water utilities are not funding infrastructure solutions that may go above and beyond that which would be deemed to be prudent and efficient, if provided by a public water utility. This is our interpretation of IPART's proposed approach. We would appreciate if IPART could confirm its position on exactly what would be treated as a minus cost. The table below summarises likely categories of minus costs and our proposed approach to their estimation. Sydney Water is still assessing the actual costs and we would be pleased to provide them to IPART when available.

Table 1 - EEC minus costs and their appropriate pricing treatment

No.	Cost component	Treatment	Units	Wholesale pricing option
Retail functions				
1	- Billing - Meter reading - Customer facing activities (call centre and other communications)	A single value of cost per connection or meter/quarter based on the wholesaler's cost to provide these services.	$/connection/quarter	Option 1
Small local reticulation				
2	OPEX	Where the wholesale customer operates and maintains small reticulation gifted by developers.	Water: $X/km/quarter Wastewater: $Y/km/quarter	Option 1
Small lead-in infrastructure				
3	CAPEX/OPEX	Where the wholesale customer provides, operates and maintains a small amount of lead-in infrastructure eg pipe work only.	Still under consideration	Still under consideration
Large system augmentation infrastructure				
4	CAPEX	If a wholesale customer provides infrastructure which is an integral part of the least cost servicing solution, we believe they should ask IPART for a scheme-specific determination for that infrastructure.	Annualised PV $/quarter In-line with the building block approach IPART uses to determine retail prices.	Option 3
Large system augmentation infrastructure				
5	OPEX	For operation of trunk infrastructure (mains, pumps and reservoirs).	Annualised PV $/quarter In-line with the building block approach IPART uses to determine retail prices.	Option 3

3.4.2 Net facilitation costs

IPART has provided limited explanation and examples of what might constitute facilitation costs. We consider that facilitation costs fall into a number of discrete categories. As such, we believe each category will require a different treatment to ensure it provides a strong signal of where entry will provide the most benefit to customers. It is important to get the treatment of facilitation costs right, so that they clearly incentivise entry where it will lower the overall cost to provide services.

Provision of recycled water as an additional service is unlikely to result in large facilitation savings relating to the deferral or avoidance of Sydney Water's network augmentation. Any demand reduction as a result of these schemes is likely to be very small in comparison to the overall growth that would trigger such work.

The table below outlines our preliminary views of likely facilitation costs and savings and our proposed approach to their estimation. We may need to consider these issues further.

Table 2 - Facilitation cost categories and their appropriate pricing treatment

No.	Cost component	Treatment	Units	Wholesale pricing option
Wholesale service provider administrative costs				
1	Wholesale customer contract negotiation	Standard fee to reflect the cost to develop the standard contract Plus hourly rates for if wholesale customer wishes to negotiate changes to the standard contract	Upfront fee: $X Hourly rates: $X/hour/quarter	Option 1
Wholesale provider operational savings				
2	Wastewater pumping savings resulting from a wholesale customer's recycled water facility	Schedule of values (eg pumping, gravity, pressure etc)	$/ML/quarter (ML of recycled water output)	Likely Option 1
3	Volumetric chemical dosing wastewater treatment savings	Schedule of values (eg primary, secondary or tertiary treatment)	$/ML/quarter (ML of recycled water output)	Likely Option 1
System augmentation				
4	System augmentation for an out-of-sequence wholesale connection	Calculated, charged and (potentially) reimbursed consistent with as our *Funding infrastructure to service growth Policy*	Up-front charge ($) Reimbursement schedule ($/quarter)	Likely Option 3

Water supply system augmentation (cost of next supply source)

Sydney Water is not responsible for augmentation of the water supply system (as Sydney Water is not a bulk water supplier). Rather, the purchase of bulk water and use of additional supply sources, such as desalination, is an operating cost that is factored into our regulated retail prices. Our potable water volumetric charge is set by IPART with reference to the long run marginal cost of the next supply augmentation. This is an appropriate signal to reduce water demand, applying to all end-use and wholesale customers equally.

In consultation on wholesale pricing to date, some stakeholders have claimed that there is a significant interaction between a wholesale customer's recycled water scheme and the cost of the next potable supply augmentation, which should result in a reduction in wholesale prices. Based on the types of schemes we have seen so far, we believe it is unlikely that these schemes will make a material difference to need or timing for water supply system augmentation, even in aggregate. Even if they did, this would be accounted for under a retail-minus wholesale pricing approach, under the component of the starting retail postage stamp price, as described below.

If a wholesale customer chooses to purchase a wholesale water service, and also provides recycled water, they reduce the total volume of water they need to purchase from the wholesale provider. Consequently, they are compensated by a reduction in costs relating to their reduced purchase of potable water. Therefore, no additional compensation by way of an additional 'minus' or negative facilitation cost is necessary.

If a wholesale customer chooses to purchase a wholesale wastewater service only, but yet still provides a recycled water service, it would not be appropriate to include a further discount on the wholesale wastewater service price. This is because retail postage stamp wastewater prices are not set with reference to the long run marginal cost of supply system augmentation. Additionally, each customer purchasing the recycled water from that scheme are themselves subject to reduced potable water bills, to the extent that they use recycled water in place of potable water.

Growth plans

IPART has requested comment on whether a wholesale service provider's growth plans are the most appropriate determinant of the level of cross-subsidy. Fundamentally a robust base case long-term plan is required to establish an incumbent's facilitation costs. Sydney Water considers that the wholesale service providers' growth plans would be the most appropriate base case.

However, we would like to note that Sydney Water has a number of different types of growth plans that are developed depending on when the growth is likely to occur. These plans are developed in line with the Government's planned release of land. This sequencing affects the detail that is contained within the plans. For example, our short-term growth plans used for the prevailing price determination period are much more detailed than our 20-year growth plans.

Also, the information that is contained within our long-term growth plans is not publically available as they contain information that we consider to be confidential, including our planned investment. It is unlikely that our Growth Servicing Plan, which is publically available, would be detailed enough, or cover the relevant time period for the purposes of determining any cross-subsidy for facilitation costs. Sydney Water could respond with more certainty to this matter, after seeing further detail from IPART on what should be included in the wholesale service provider's growth plans.

3.5 Developer charges and development risk

3.5.1 Developer charges and net facilitation costs

Current context – development charges set to zero

In its Discussion Paper, IPART considers how the calculation of facilitation costs should work in the current context of developer charges for water and wastewater being set to zero.

In principle, we agree with IPART's proposed treatment. That is, the wholesale customer should not be required to fund costs that Sydney Water could otherwise recover through retail prices. This will allow any costs that Sydney Water would incur to be spread across Sydney Water's whole customer base, in the same way as if Sydney Water had been the service provider.

IPART canvasses three circumstances that may involve the consideration of developer charges. Our view on each of these circumstances is set out below.

- There is no timing difference resulting from the provision of the wholesale service

  We agree that, in this case, the facilitation cost relating to any augmentation to service the wholesale customer would be zero.

- There is a timing difference resulting from the provision of the wholesale service:
  - where planned augmentation is brought forward due to the provision of the wholesale service, the facilitation cost relating to this component would be positive. In this case, the wholesale customer should bear the additional cost that Sydney Water would incur by undertaking works at an earlier date than planned.
  - where planned augmentation is delayed, the facilitation cost would be negative. In this case, the wholesale service provider should compensate the wholesale customer for the benefit it receives by delaying the augmentation.

- The augmentation would never be triggered under the wholesale service provider's growth plans:

  It is unclear what IPART means by augmentation that "would never be triggered"[28]. If this is because the end-use customers are outside of Sydney Water's area of operations, we do not think that wholesale pricing should apply (as we would never have collected the retail revenue from this area)[29]. If this is because the area is not yet included on any growth plans due to being located in an area that was not expected to be developed, even in the long-term future, it is unclear what basis would be used to calculate the cost of augmentation. If this is because the development is out-of-sequence and of a type that would need to be wholly funded by a developer, our view is that the wholesale price should not allow for an additional transfer of risk to end-use customers (as discussed below). This is an example of an issue in the Discussion Paper that we have found difficult to respond to in the absence of a worked example.

[28] IPART, *Prices for wholesale water and sewerage services – Discussion Paper*, April 2016, p 37

[29] Instead, our preference would be to treat this as an unregulated commercial agreement. This is mainly relates to the impracticality of applying a retail-minus pricing approach to a situation where the end-use customers would not be served by the wholesale service provider.

We note that, for all of these circumstances, the Discussion Paper appears to assume that the public utility would continue to be responsible for the additional works and subsequent additional system costs required to service the development. Our understanding of the WIC Act is that it appears to also allow for these works to alternatively be delivered by a private utility. We attempt to address both possibilities in Appendix C.

Potential future – reinstatement of developer charges

The Discussion Paper also considers how facilitation costs may be affected if developer charges were potentially reinstated in the future. As this is a hypothetical situation, we have not considered this alternative context in detail.

In general, IPART's statement that if there is no cross-subsidy from the wider customer base there would not need to be any consideration of this as a facilitation cost appears sound. However, we do not feel that the wholesale price determination should attempt to cover this circumstance. This would add an additional layer of complexity, and additional uncertainty in trying to regulate for conditions that are not yet known.

If water and wastewater developer charges were to be reinstated, the impact on wholesale pricing (and on other Sydney Water developer funding policies) would need to be thoroughly considered at that time. We would support the remaking of the wholesale price determination in such circumstances.

3.5.2 Development risk and out-of-sequence development

In the current context of zero developer charges, Sydney Water customers fund any additional costs associated with growth, via retail prices.

However, where a developer wishes to bring forward development ahead of the Government's planned release of land (out-of-sequence development), the cost of doing so is not funded through retail prices. Rather, we require the developer to pay for the additional costs, which Sydney Water then refunds over time as growth occurs. This occurs at different threshold levels (for example, 30% or 60% of development), depending on how much the timing of the development differs from the Government's proposed release timings. This ensures an appropriate allocation of the take-up risk to the party (ie the developer) who is best placed to take on that risk, and who will reap the reward from that risk.

Wholesale customers may choose to take on some of this risk that we believe developers should bear in servicing out-of-sequence development. If they choose to do this, the wholesale price should ensure this is not passed on to Sydney Water. To the extent this is allowed to occur, we believe the wholesale price should be increased. We believe we should only have to bear the same risk as if we had of had to service the development ourselves.

3.6 Unregulated price agreements

In our submission to IPART's Draft Determination of retail prices, we did not support the decision to allow Sydney Water and large non-residential customers to 'opt-out' of IPART's determined water and wastewater prices, by voluntarily entering into unregulated price agreements. We considered that this would inadvertently result in a loss of important existing safeguards under the

current regulatory framework and leaves an efficient business at risk of not being able to recover its long-term costs. It is especially necessary to have such safeguards in a context of uncertainty in an evolving industry.

In our response to the retail price Draft Determination, we raised concerns with IPART's proposal based on:

- the likelihood that non-residential customers would be unlikely to opt out of regulated prices unless this would lead to a cheaper price for them
- as unregulated price agreements could not be guaranteed to roll over into future determination periods, the incentive for customers to make investments that may be required to benefit from a negotiated price would be limited.[30]

We believe that these concerns are also relevant to allowing customers to opt-out of regulated wholesale prices.

We recognise that unregulated price agreements are allowed under the WIC Act. However, we do not consider that the two approaches are comparable, given that the legislative basis is different and there is scope for wholesale prices to be re-regulated through a future IPART Determination.

Therefore, consistent with our position on retail prices, we believe that if there is to be a regulated price for wholesale services, this price should be applied consistently to all wholesale customers.

[30] Alternatively, the ability for prices to be 're-regulated' creates the potential for customers to make inefficient investments.

4 Response to options for implementing retail-minus

Key messages

- All options presented by IPART for implementing retail-minus will result in short- to medium-term inefficient entry, if the minus is based on comparisons with a 'reasonably efficient competitor', rather than an 'equally efficient competitor'.
- As wholesale services is a new area of regulation, the approach to setting prices should be flexible enough to accommodate potential market developments.
- We support a set length for the initial wholesale Determination of no more than five years, so that it can be subject to review in the medium-term to ensure it is meeting its objectives.
- We recommend that IPART adopt a hybrid option of Option 1 and 3:
    - **Option 1** – To provide certainty and minimise complexity, an up-front price can be set for simple schemes, for example where the new entrant only provides retail services and minimal operation and maintenance of local reticulation functions. This could be based on set average deductions where possible, or a schedule of values.
    - **Option 3** – For schemes involving more infrastructure provision and/or potentially more complicated net facilitation costs, either party (the incumbent or new entrant) can request IPART to determine a scheme-specific wholesale price. Effectively, this is a price on application approach.
- We believe this approach, given the development of the market to date, best balances the desire for simplicity and certainty, with the challenge of calculating average costs for functions or services that can differ dramatically, depending on the scheme, which functions are being provided and its location.
- In the future, Option 2 (or a more detailed schedule of EEC costs and facilitation costs and savings) may be a more viable pricing approach, after we have more experience and knowledge about the types of future wholesale scenarios that will need to be covered by such a methodology.

This chapter responds to IPART's Discussion Paper on its options for implementing retail-minus by:

- assessing each of IPART's three proposed options
- outlining our preferred approach of a hybrid of Option 1 and Option 3
- providing our position on a number of other matters raised by IPART such as:
    - the length of the determination period
    - calculating the retail component
    - interim price arrangements
    - Wholesale Servicing Plans.

4.1 Overview

The preferred option for implementing a retail-minus methodology should reflect the likely uptake of wholesale services and the maturity of the market. As discussed in Chapter 2, we consider that demand for wholesale water and wastewater services is likely to remain low over the short- to medium-term.

As wholesale services is a new area of regulation, the approach to setting prices should be flexible enough to accommodate potential market developments, but subject to review in the medium-term to ensure that it is meeting its objectives.

4.1.1 Our preferred option

As noted in Chapter 3, we are opposed to the use of the REC cost benchmark. However, our view on IPART's implementation options will apply irrespective of the approach taken or the cost benchmark applied. Our position is that a hybrid of Option 1 and Option 3 should be adopted in the short- to medium-term, with implementation of either Option 2 or a more detailed application of Option 1 examined in the longer-term, when the degree of entry and the operation of the market warrant this. Whilst it is not currently being considered, we note that we have previously stated we are open to developing voluntary access undertakings for both water and wastewater services, if it would contribute to certainty and best meet the objectives of wholesale service provision. We note that these undertakings would then be subject to approval by IPART, in accordance with Division 5A of the WIC Act.

In the short-term wholesale prices could be determined through Option 1 for schemes that involve a simple infrastructure configuration, where a price (ie the discount to the retail price) is set on a system-wide basis for average 'minus' components and a schedule of net facilitation costs based on the service components provided by the wholesale customer. In terms of the 'minus', a simple scheme based on the EEC standard, would involve a new entrant providing retail services (eg metering, billing, account management and customer contact), operating and maintaining a limited amount of small reticulation, and potentially a small amount of lead-in pipework if delivered by the wholesale customer.[31] Net facilitation costs would cover the administrative costs of the incumbent and the costs of any minor lead-in mains delivered by Sydney Water, as well as savings where the scheme involves provision of recycled water. If the scheme was out-of-sequence, facilitation costs could also include the additional cost of bringing forward any augmentation infrastructure (eg minor lead-in mains) delivered by Sydney Water.

Sydney Water is still considering the specifics of appropriate standard minus and net facilitations costs that could be used for Option 1. We would be pleased to work with IPART in this regard.

A 'price on application' would be available for more infrastructure-intensive schemes, where IPART would use Option 3 to determine that price. That is, there would be a case for an individual price determination where there is material infrastructure required to deliver a scheme, for example, a reservoir, a pumping station, trunk mains or major lead-in mains[32]. This recognises that with material infrastructure a scheme is more bespoke, and that both the minus component and the net

[31] In practice we expect any reticulation to be built by the developer and transferred to the new entrant, as currently occurs with assets provided to incumbents free of charge.

[32] To date, we have not had any wholesale schemes that require the construction of material infrastructure.

facilitation costs may differ significantly from the average(s) used under Option 1. Under this approach, either the wholesale service provider or the new entrant could select Option 3, if they were of the view that the scheme deviated materially from the cost deductions set out under Option 1. Where a tailored or bespoke price under Option 3 was chosen, an IPART determined price cap (as opposed to a methodology) would avoid the potential for protracted negotiations and arbitration.

Our evaluation of the pricing options in IPART's Discussion Paper is set out below. We consider that our hybrid option best meets the objectives of predictability, proportionality, transparency, consistency and adaptability of regulation. It provides certainty for those wholesale customers with relatively simple schemes, while allowing an adaptive approach for wholesale customers with more infrastructure intensive schemes. We consider that this is the best option to minimise the risks of regulatory uncertainty, stifled innovation and investment, or inappropriate investment and risk allocation.

We also describe four scenarios in Appendix C and we present our preferred pricing approach for each of these scenarios.

4.1.2 Wholesale pricing in the longer term

In the longer-term it may be appropriate to work towards implementing either Option 2 or a more 'granular' version of Option 1 (that is, a building block schedule of wholesale prices by service components and location), once the market is established and there has been sufficient successful entry to warrant a more detailed approach to regulation.

This more disaggregated approach to wholesale pricing would be assisted by the development of regulatory accounts by incumbents, within comprehensive regulatory accounting guidelines determined by the regulator. Costs could be categorised by function, for example, in the case of a vertically integrated water and wastewater business, by bulk water supply source (including treatment where relevant), wastewater treatment and disposal, water and wastewater transport, retail activities and postage-stamp pricing contribution.

Depending on the structure of the business and the nature of its market, there may be a requirement to disaggregate costs according to location, technical system or technology, and other dimensions. For example, if a business serves an area with a high degree of heterogeneity (say, in terms of customer density or demand composition), the regulator may require the business to identify the cost of serving sub-areas. If a business provides services across more than one system using different technologies (as in the case for Sydney Water in wastewater treatment and disposal), the regulator may require information on the revenues and costs arising from each system (even when a postage stamp price is applied across all systems). This separation of revenues and costs allows identification of potential flows of funding or cross-subsidies between the systems.

4.2 Assessment of options for implementing retail-minus

As we discuss earlier, Sydney Water is opposed to the use of the REC cost benchmark. However, in order to assist IPART in its review, we have provided below our assessment of the options IPART has put forward for implementing retail-minus. Table 4 (see page 40) provides a summary of assessment of the options, and their advantages and disadvantages, including our proposed hybrid approach.

In tailoring our response, Sydney Water assessed IPART's reasoning and rationales for the proposed options against the following:

- **Predictability**: the price control is set in a way that produces a stable environment with the objective of allowing all parties to make efficient long-term investment decisions.
- **Proportionality**: price controls should be appropriate to the risk posed, and administrative and compliance costs should be commensurate with the problem addressed.
- **Transparency**: IPART's processes should be open, methodologies/regulations simple and clear as possible, and analysis able to be replicated by other stakeholders.
- **Consistency**: policies, rules and standards set by IPART or other regulators/agencies/Ministers should be aligned and should be implemented fairly.
- **Adaptability**: the price controls have the capacity to evolve, respond to changing circumstances and continue to be relevant and effective over time.

We also consider that the pricing approach determined by IPART needs to address the possibility of a number of future scenarios of market entry. In Appendix C, we describe four scenarios which we believe are potential scenarios for wholesale customers and we present our preferred pricing approach for each of these scenarios. For clarity, we also outline a number of scenarios which we believe do not constitute wholesale customer scenarios so would not trigger any component of the wholesale pricing framework. We note though that we have not provided specific figures in the appendix for actual deductions for facilitation costs. Sydney Water is still assessing the issue, and would be pleased to work with IPART to provide further information as required.

4.2.1 General assessment of IPART's proposed options

We believe that all the potential options proposed by IPART will result in inefficiencies if the minus is based on a REC test and if IPART's assumption is that the entrant has higher costs. As discussed in Section 3.2, we do not consider this presumption to be correct or industry best practice. The approach will, in all instances, result in the under recovery of our efficient costs in the absence of an increase in our customers' bills.

As discussed earlier, Sydney Water believes that the retail-minus REC approach is not likely to facilitate efficient entry into the market. Therefore, we consider that for all options proposed by IPART, there will be a financial impact that will be commensurate with the level of entry that occurs. While the materiality of the financial impact may be minimised as we are not anticipating growth in the market for wholesale services (unless the price is set in such a way that significantly incentivises inefficient entry), we are not convinced that this negative impact will be offset by the potential long-term dynamic efficiencies IPART has suggested may result.

We are also of the view that all options may lead to a negative reputational impact on Sydney Water. In particular this negative impact will come from retail customers if they experience increases in their bills with no change in the level of service they receive from Sydney Water.

4.2.2 A system-wide average minus and net facilitation costs (Option 1)

For Option 1, Sydney Water's assessment is based on the assumption that IPART would set average minus components and a schedule of facilitation costs and savings based on the service components the wholesale customer is providing. We do not consider that one single average minus and facilitation cost would be appropriate. We are also of the view that the schedule would be limited to where the wholesale customer was providing standard services such as retail, small reticulation and potentially some minimal lead-in pipes. For more complicated schemes with material infrastructure we do not consider that Option 1 is suitable. We have conducted analysis to support our position below.

Assessment against regulatory principles

Sydney Water's assessment of IPART's reasoning and rationales for Option 1, against the regulatory principles outlined in Section 4.2, is as follows:

- **Predictability** – there would be a high level of predictability for the wholesale price given it would be a standard set of prices across our area of operations, based on services provided.
- **Proportionality** – of the three options proposed by IPART, we consider that Option 1 most favourably for proportionality.
- **Transparency** – the transparency of the end wholesale price would be very high, however the process for how IPART and/or Sydney Water determined the minus and net facilitation costs may not be as transparent as other options.
- **Consistency** – as this is a set wholesale price, the consistency of how we treat wholesale customers would be high.
- **Adaptability** – there would a low level of adaptability over the term of the determination period as the set price would not reflect changes in the market.

Advantages

Where there are not large differences in costs between locations for particular service components that may be provided by a wholesale customer, the benefits of setting an up-front average deduction are likely to outweigh the transactional costs of calculating bespoke cost components. Including a schedule of values for facilitation costs that may vary significantly by location allows this option to be more scheme-specific, where required. Setting these cost components up-front will lower the administrative burden on both the wholesale service provider and wholesale customer. It also provides certainty to the industry to allow potential entrants to make efficient long-term investment decisions.

As it will be a price cap set by IPART, we also believe this would avoid the potential for disputes between the provider and the customer over the application of a methodology or choice of inputs and assumptions.

Disadvantages

Where schemes involve a significant amount of infrastructure, a system-wide average for infrastructure costs is not appropriate. If IPART were to set a system-wide average that was not based on the services the wholesale customer provides, there is a potential for arbitrage. This would occur if there was an average price based on an average level of infrastructure provision by all entrants and an entrant only provided minimal services such as retail and reticulation. A single average deduction also would not provide any signals to the market of where it is efficient to invest. This would promote inefficient entry. It would also be unfeasible to develop a schedule of location based EEC minus costs relating to the provision of significant infrastructure. This is because these types of EEC minus costs relate to unknown future scenarios involving augmentation of infrastructure delivered by the wholesale customer. This type of entry has not yet been experienced in the Sydney market.

Of all the options, system-wide averaging significant infrastructure under Option 1 poses the highest risk of introducing long-term inefficiencies if applied to cost components which vary widely. This is because the more the theoretical scenarios of infrastructure provision are averaged, the greater the potential for arbitrage. This results in this option having the greatest potential for inefficiency and risk of Sydney Water under-recovering revenue if the average extends beyond minimal services. This is outlined in the following section.

Analysis of a sample of projects to augment our systems to facilitate growth

In theory, there are multiple ways that water and wastewater systems could be augmented to facilitate growth. Each development will have its own characteristics and the water and wastewater systems which exist adjacent to it will also have their own set of constraints. In addition to this, there will also be a range of potential opportunities for system and service optimisation. Sydney Water considers these parameters before deciding upon a preferred servicing strategy for a development.

To assist IPART in understanding why Option 1 is not currently workable where a new entrant is delivering significant infrastructure we have provided detail below on the range of costs that could be incurred when servicing new developments.

In Sydney Water's experience, there is a large range in the costs required to deliver any system augmentation required to service new developments, even when normalised as a present value per new connection. If these projects had been used to develop an average minus for system augmentation to be built and operated by a wholesale customer, it would result in a significant opportunity for wholesale customers to 'cherry-pick' developments with low augmentation costs and leave developments with higher than average augmentation costs for the wholesale service provider. Table 3 below shows the range of costs Sydney Water has experienced when servicing new developments. It should be noted that in the schemes we have seen to date that have requested wholesale services, Sydney Water has continued to supply all lead-in infrastructure. That is, none of the costs shown in Table 3 below would apply to current wholesale services.

Table 3 - Range of the present value costs of system augmentation to service growth

	Site servicing 4,000 dwellings		
	Minimum costs	**Average costs**	**Maximum costs**
Lead-ins	$2m	$20m	$60m
Trunk & pumping	$1.6m	$16m	$32m
Finance	$2.8m	$28m	$59m

Future of Option 1

As discussed earlier, we are of the view that as the market matures it may be appropriate to move towards a more 'granular' version of Option 1. This could involve a more detailed schedule of wholesale prices by service, function and location. The advantage of this more granular approach is that it would reduce the inherent risk in Option 1 of potential arbitrage as the price could be better tailored to the specifics of the services the wholesale customer intends to supply. It would also promote more efficient entry.

However, we consider that the regulatory burden of a more granular version of Option 1 is not commensurate with the likely level of uptake at this point in time. Given the infancy of the market we do not believe this is an appropriate short- to medium-term solution for wholesale pricing.

Conclusion

Based on our assessment, and as discussed earlier, we believe Option 1 would be suitable as a default wholesale price based on set deductions for cost components that could be reasonably averaged, and a schedule of values for facilitation savings that are more varied. These cost components would relate to the service components provided by the wholesale customer, such as retail and reticulation. We do not support this option where the customer will be providing services beyond this, such as large trunk infrastructure, as the cost variables are too large to set an appropriate average and it is uncertain where the split of responsibilities between the wholesale service provider and wholesale customer would occur. In these cases, Option 3 is our preferred option (see below).

We would not support Option 1 if it set a single system-wide average that included large-scale infrastructure. This would bring in an opportunity for arbitrage between the actual costs of infrastructure and the average minus, and we do not consider that this is appropriate.

Once the market is established and there has been sufficient successful entry to warrant a more comprehensive approach to regulation, it may become more beneficial to move towards a more specific schedule of costs based on service, function and location or consider the introduction of a methodology.

4.2.3 A methodology for scheme-specific minus and net facilitation costs (Option 2)

Sydney Water's assessment of Option 2 has assumed that IPART would adopt a reasonably prescriptive approach to setting a methodology in line with the approach applied to developer charges. Accordingly, we do not support Option 2, largely due to the high regulatory burden it places on us. If it were not the case that IPART set a prescriptive methodology, for example, if IPART were to develop a set of guiding principles for setting a wholesale price, then we would view this option more favourably.

Methodology

In the Discussion Paper, IPART has asked stakeholders to propose a methodology for calculating the minus and net facilitation costs. As Sydney Water does not support Option 2 in the short-term we have not provided detailed comments on this. However, generally, Sydney Water agrees with the broad formula outlined by IPART in section 4.4.1 of the Discussion Paper.

Assessment against regulatory principles

Sydney Water assessment of IPART's reasoning and rationales for Option 2, against the regulatory principles outlined in Section 4.2, is as follows:

- **Predictability** – Unlike Option 1, there would be a high level of predictability for the market in terms of the **process** of determining a wholesale price. However, the predictability of the end **price**, which is the element that provides certainty for long-term investment, is relatively low because a stakeholder would not be able to replicate the process without knowing Sydney Water's proposed inputs.
- **Proportionality** – As the work required to prepare a Wholesale Servicing Plan to determine a wholesale price under this option would only be in response to a request from a potential entrant. We consider that the proportionality of this option rates highly if the request relates to an in-sequence development for which Sydney Water has detailed plans and costs. If this were not the case, the proportionality of this option may be lower.
- **Transparency** – As with predictability, while the level of transparency would be high for the process required to go through to get to a wholesale price, the price that would result may be less transparent. This is because a stakeholder would not be able to replicate the process without knowing Sydney Water's proposed inputs.
- **Consistency** – Option 2 would have medium level of consistency as the methodology is stated in-advance.
- **Adaptability** – this option could have a high degree of adaptability if it were able to reflect the unique conditions of a new entrant, but ultimately the level of adaptability would reflect the level of prescription in the methodology.

Advantages

Option 2 would result in a wider range of site-specific cost components for wholesale prices than Option 1, and would therefore go further in promoting efficient entry for a wider range of wholesale scenarios. It would provide an incentive to enter the market in areas where entry would result in a lower overall cost to serve. This benefit could be passed on to all consumers. There is also some certainty for the market through a published methodology.

Depending on how prescriptive the methodology is, this option would allow for the incumbent and the new entrant, who are two commercial businesses, to negotiate the required inputs. This would allow the parties to come up with a commercially acceptable wholesale price.

Disadvantages

There is a potential administrative burden on Sydney Water in developing Wholesale Servicing Plans. As discussed earlier, Sydney Water's growth plans are developed in line with the Government's planned release of land which affects the detail that is contained within the plans. In the event that a wholesale customer was to bring forward development, we would see a higher administrative burden under Option 2, as Sydney Water would be required to carry out considerable work to provide the appropriate level of detail for the wholesale servicing plan. The practicality of this is another reason why we do not consider Option 2 as currently viable.

We estimate that it could cost Sydney Water between $50,000 and $100,000 to develop a robust Plan, and it would take approximately six to 12 months to prepare. However, this would depend on how far advanced Sydney Water's servicing strategy for the proposed wholesale scheme was at the time of application (ie if the proposed scheme was in or out-of-sequence).

As we have noted throughout this paper, it is difficult to envisage all types of entry that will emerge in the urban water market. This suggests it would be inherently challenging to develop a prescriptive methodology that would cover these unknown types of entry. Also, in our experience a prescriptive methodology such as the developer charges methodology has meant we have not been able to adapt it to changing conditions such as the introduction of new legislation or better data. As the only way to amend a determination is to remake the determination and potentially carry out a full review, we do not consider this an appropriate way to set wholesale prices for a new and emerging market.

If there is no true-up mechanism between interim and final wholesale prices, there may not be an adequate incentive for both parties to conclude negotiations. Additionally, unless IPART was able to set a timeframe to finalise inputs to the methodology, there is a risk of lengthy and protracted negotiations. There is also a potential for entrants to accuse Sydney Water of delaying outcomes while we work through the potentially lengthy process of developing a Wholesale Servicing Plan. There is also a potential for entrants to accuse Sydney Water of delaying outcomes while we work the through potentially lengthy process of developing a Wholesale Servicing Plan.

We believe this option has an extremely high likelihood of arbitration as allowed under Section 31 of the IPART Act, due to disagreement between parties on the inputs to the methodology, or the resulting wholesale price (as was often seen in the telecommunications industry prior to the introduction of access determinations). This would be costly and time consuming.

Conclusion

Sydney Water is not supportive of Option 2 due to the high regulatory burden it places on us, and the high risk of dispute between the parties.

If the methodology is prescriptive, this would limit the discretion of Sydney Water in its application. However, if IPART were to instead develop a set of guiding principles for setting a methodology to determine wholesale prices, this would give us the flexibility to develop a framework that is fit-for

purpose to accommodate the unique conditions of a proposed scheme, and that is consistent with our detailed understanding of costs and other relevant information about system operations.

As discussed earlier in this chapter, we consider there may be potential to move to Option 2 once the market matures and there has been sufficient successful entry to warrant a more comprehensive approach to regulation.

4.2.4 IPART determining scheme-specific minus and net facilitation costs (Option 3)

Our assessment of Option 3 is based on the assumption that IPART will determine a bespoke wholesale price for an existing or new wholesale scheme.

Assessment against regulatory principles

Sydney Water's assessment of IPART's reasoning and rationales for Option 3, against the regulatory principles outlined in Section 4.2, is as follows:

- **Predictability** – The predictability of the wholesale price for each new wholesale scheme is likely to be potentially less than Option 2 as this includes a level of discretion on the part of the regulator.
- **Proportionality** – As with Option 2 the work required to determine the price would only be required in response to a request from a potential entrant and is therefore likely to be proportionate. If close to plans
- **Transparency** – Like Option 2, we consider that the level of transparency would be high for the process required to go through to get to a wholesale price. However, the actual price that would result is less transparent as a stakeholder would not be able to replicate the process without knowing IPART's proposed inputs.
- **Consistency** – This option potentially has the lowest consistency of the three options, as the determination is made on case-by-case basis.
- **Adaptability** - There would be a high level of adaptability for this option as it would reflect the unique conditions of each new entrant's proposed scheme.

Advantages

This option has the same advantages as Option 2 in that it results more site-specific wholesale prices, and would therefore go further in promoting efficient entry. It would provide an incentive to enter the market in areas where entry would result in a lower overall cost to serve. This benefit could be passed on to all consumers.

The benefit of this option over Option 2 is that it limits the potential for long, protracted negotiations between parties who are not likely to agree on costs. It also eliminates the prospect of lengthy arbitration. We also consider that another benefit of this option is that it is an open and transparent process for all parties involved and allows for a greater opportunity for review and comment than the other options.

As noted in Option 2, prescriptive methodologies are not easily adaptable and may not cover all types of entry we may see in the future. The advantage of Option 3, is that IPART would be able to make determinations that respond to the particulars of each new scheme and the prevailing conditions of the market.

Disadvantages

As with Option 2, this option has a potential administrative burden on Sydney Water. However for Option 3 this burden further extends to IPART in having to perform a price review for each scheme. This may be mitigated by also having an available, low-administrative default price under Option 1. Option 3 also removes the ability for two commercial businesses to negotiate the outcome.

Conclusion

Given that this option removes what we consider to be an unacceptable risk of dispute and arbitration, we consider that this is the most appropriate option for bespoke wholesale schemes that include minus and/or net facilitation cost components that cannot be sufficiently covered by Option 1. Under this option, either the wholesale service provider or the new entrant could select to go to an IPART determined price cap, if they were of the view that the scheme deviated materially from the average costs set out under Option 1. We would also suggest that IPART have discretion in whether to accept the request for determination or reject unreasonable determination requests.

4.2.5 Summary of Sydney Water's options assessment

Table 4 below provides a summary of our discussion of the potential options.

Table 4 - Summary of Sydney Water's options assessment

Option	Advantages	Disadvantages
Option 1 System wide average minus by service component and schedule of net facilitation costs	• Simple to apply – lowest implementation issues/regulatory burden • Provides certainty to the industry • Appropriate if little to no infrastructure owned and operated by the wholesale customer	• Not scheme-specific • This would have the highest risk of long-term inefficiencies if average applied to widely variable cost components • Provides minimum signals to the market on where it is efficient to invest •
Option 2 Methodology for scheme-specific minus and net facilitation costs	• As this is scheme-specific and tailored, would result in more site-specific wholesale prices • Promote more efficient entry • Depending on how prescriptive the methodology is, allows two commercial businesses to negotiate	• Potential administrative burden • No ability for IPART to set timeframes to finalise costs and no incentive to conclude negotiations • Potential for arbitration as parties unlikely to agree • Likely to have the greatest? regulatory burden •
Option 3 IPART determining scheme-specific prices	• As this is scheme-specific and tailored, would result in a more site-specific wholesale prices • Limits ability for long, protracted negotiations between parties who are never likely to agree on costs • Avoids potential for arbitration • Open and transparent process	• Potential administrative burden (although the same as Option 2) • Removes ability to negotiate as a commercial business
Proposed hybrid approach A combination Option 1 and Option 3	• Average for 'simple' schemes but allows for consideration of scheme-specific characteristics for 'complicated' schemes • Option 3 is regulator's process so avoids arbitration and dispute	• Potential regulatory burden for more complicated schemes

4.3 Other matters

The following sections outline Sydney Water's position on a number of the additional matters raised by IPART in its questions to stakeholders.

4.3.1 Length of the determination period

We understand that in making a price determination IPART generally considers the following factors when deciding on the length of the determination period:

- the confidence it can place in the regulated business' forecasts
- the risk of structural changes in the industry
- the need for regulatory certainty and financial stability.

Longer determination periods have some advantages over shorter periods. A longer period provides greater stability and predictability (which may lower business risk and assist investment decision making), and reduced regulatory costs. However, with longer determination periods there is an increased uncertainty around the forecast data used to make the determination, and an increased risk that changes in the industry will impact the effectiveness of the determination.

Wholesale services is a new area of regulation and we strongly support specific, medium-term determination periods in the first instance (ie under both Option 1 and Option 3). This provides certainty as to when the determination will be reviewed, to assess whether the regulatory approach is meeting its objectives. In the first instance, we propose a length of no more than five years. Subsequently a longer or more 'open-ended' determination period may be appropriate.

We assume that, under a retail-minus pricing approach, any changes in retail prices, including new levels, structures or the future incorporation of any uplift in the retail price due to funding of new entry, will be passed through to wholesale prices as soon as practical after they occur.

4.3.2 Calculating the retail component

Customer information

In order to calculate the retail component, the information provided by the wholesale customer would need to mirror the requirements in our price determination. This would ensure we have the correct information to calculate the retail price for the wholesale customer. This could include the:

- the number of Metered residential properties and Mixed Multi Premises (as defined in IPART's pricing determination) within the wholesale customer's service area
- number of metered properties and their meter size
- number of unmetered properties
- total water consumption by non-residential customers of the wholesale customer.

It would be Sydney Water's preference that we would install an upstream meter[s] to accurately measure the volume of water supplied to the wholesale customer at the point of connection. This is to ensure Sydney Water does not bear any risk in relation to any water loss incurred between the point of connection and the end-use customers.

Discharge factor for wastewater customers

Sydney Water suggests that a default discharge factor of 78 per cent be set for both the service and usage charge for non-residential wastewater customers. This is in line with the default set by IPART in our retail price determination, and therefore would have the best chance of keeping us revenue neutral. Sydney Water proposes that it would use the below calculation to would enable us to calculate the chargeable volume of wastewater discharged by the wholesale customer:

> **Wastewater chargeable volume calculation** = (total water consumption by non-residential customers of the wholesale customer) x (78% default discharge factor) – (wastewater discharge allowance x number of property).

Trade waste

We note that IPART has proposed that applicable trade waste charges be included in the methodology for calculating retail revenue. We do not yet have a position on whether this should be part of the wholesale prices or dealt with as a separate agreement with the wholesale customer.

Our proposed arrangements with third party utilities include a standard trade waste agreement with the utility, which forms part of the Utility Services Agreement. This is because these arrangements involve developments that contain at least some non-residential properties, and have a recycled water plant discharging waste to our network.

The combination of the wholesale customer having both residential and non-residential customers may be a factor that needs to be considered as part of how we treat trade waste charges. It is also difficult to predict whether future schemes would seek to discharge trade waste to our network. Sydney Water is still assessing the issue, and would be pleased to work with IPART on how trade waste should be dealt with in the final option determined by IPART.

Information from wholesale customers

To obtain information from wholesale customers we would likely enter into a Utility Service Agreement (or similar) with the wholesale customer which outlines the requirements and timings for the information we need. This may include provisions to allow us to audit the information. These arrangements do not need to be covered by the wholesale pricing Determination.

4.3.3 Interim Prices

We agree that setting an interim wholesale price will increase certainty for industry, while also providing sufficient time to develop a robust final wholesale price. Sydney Water's preferred approach is to use Option 1 as the interim price, rather than the non-residential charge. Option 1 is aligned with the retail-minus approach and more likely to be closer to the final price.

We would also wish to see a true-up mechanism if there is an interim price. This mechanism is used in other regulated utility industries such as telecommunications. It would allow either the wholesale customer or Sydney Water to recover costs if the interim price is higher or lower than the final price determined or approved by IPART. A true-up mechanism provides an incentive for the parties to engage in good faith in any interim period.[33]

[33] ACCC, *Guidelines relating to deferral of arbitrations and backdating of determination under Part IIIA of the* Trade Practices Act 1974, March 2007.

4.3.4 Wholesale Servicing Proposals/Plans

Sydney Water supports IPART's proposal to include a procedure for developing a Wholesale Servicing Proposal (WSP). We believe this would be a transparent way for the wholesale customer to understand Sydney Water's position when calculating the wholesale price. If the process is similar to the process we are required to follow for preparing Development Servicing Plans we support this as this is an open and transparent process to seek and consider submissions on our proposal. On seeing the proposed process in more detail, we would be in a better position to comment on any potential cost or resourcing impacts. We understand that Sydney Water would only prepare a WSP in response to a request from a potential wholesale customer. This will avoid unnecessary administrative burden.

In the event that developer charges were reintroduced, the preparation of a WSP could be linked to an existing Development Servicing Plan. This would reduce the administrative burden.

The information to be contained in the WSP could include:

- WSP area including the extent of the WSP area, which may be greater than the proposed area to be serviced by the wholesale customer. This would be in order to align the WSP area with our growth plans/precinct level servicing strategies. The WSP area should also include demographic and land use planning information.
- Our proposed capital works and timing based on our estimated lowest cost servicing option. This would be taken from our precinct level servicing strategy.
- Future expected annual operating, maintenance and administration costs to service the WSP area, based on the incumbent's servicing strategy
- The standards of service to be provided to customers in the area and design parameters.
- Any other additional facilitation costs (including one-off costs) that will be incurred by Sydney Water in order to provide services to the wholesale connection point.
- The calculated wholesale charge, and the information used to calculate the charge, including indexation principles and parameters used for that calculation.

There would also need to be consistency between the short-term growth plans used for our retail price determination and the long-term plans that may be used to prepare the WSP.

In order to ensure certainty to the industry regarding the costs of preparing a WSP, we would suggest that IPART set a regulated fee (taking into consideration the duration and complexity of preparing such plans) through this determination that the potential wholesale customer would be required to pay. This payment would need to be made regardless of whether the potential customer entered into an agreement with Sydney Water for the supply of services.

From our review of the Discussion Paper, it is Sydney Water's understanding is that the information contained in the WSP would also be required for a wholesale servicing plan under Option 2.

Appendix A Summary of responses to questions

We have outlined below Sydney Water's general position on each of IPART's questions below.

Definition of wholesale services and customers

1. Do you support our proposed definitions of wholesale water and sewerage services and customers? If not, how should wholesale customers and services be defined and why?

Sydney Water has some minor concerns about the proposed definitions of wholesale water and sewerage services and customers. We have suggested our proposed amendments in Section 2.1.

Wholesale pricing objectives and guiding principles

2. What should be our objectives and guiding principles in determining prices for wholesale services?

Sydney Water agrees with IPART that market entry should be facilitated where it encourages the efficient use of and investment in water and wastewater infrastructure. However, we are concerned that IPART has focused on setting wholesale prices to encourage dynamic efficiency benefits, but has provided no indication of how there would materialise, their nature or their magnitude. We have outlined our views on objectives and guiding principles in Section 2.2.

Overall pricing approach

3. Is retail-minus the best pricing approach to facilitate efficient new entry? If not, what approach can best achieve this objective?

Yes, Sydney Water supports the adoption of a retail-minus pricing approach. We agree with IPART's assessment that it is the only approach within the current environment of vertically-integrated incumbent distributor/retailers and postage stamp pricing which allows the incumbent water utility and new entrant to compete on equal terms. See Section 3.1.

4. Should the minus component of retail-minus prices reflect the costs of a reasonably efficient competitor? If not, what 'minus' would best achieve our objectives?

No. Sydney Water does not support IPART's preliminary view to use the 'reasonably efficient competitor' as the standard for calculating the cost of the delivery of water or sewerage services from the wholesale connection point to the end-user. We believe an avoidable cost approach, or equivalently, the combination of an equally efficient operator and net facilitation cost standard, better promotes the long-term interests of customers. See Section 3.2.

5. How should a 'reasonably efficient entrant' be defined?

As discussed in Section 3.2 and our answer to question 4, a reasonably efficient competitor standard should not be applied and therefore would not need to be defined.

6. **Do you support our proposed treatment of facilitation costs? If not, how should the pricing methodology treat facilitation costs?**

   In general, we support IPART's proposed treatment of net facilitation costs. This includes IPART's position that net facilitation costs should take into account both costs to the wholesale service provider in providing the wholesale service, as well as any potential savings. We are concerned that there may be some confusion in the Discussion Paper regarding the distinction between minus costs and net facilitation costs. We have interpreted IPART's position to be that the 'minus' component should reflect only the contestable parts of the service that the wholesale customer provides (ie the costs from the wholesale connection point to the end-use customer). In addition, these costs are based on the service that would have been provided by the public water utility, which is subject to prudency and efficiency tests. See Section 3.3, Section 3.4 and Section 3.5.

7. **What is the best way of determining or estimating net facilitation costs?**

   We consider that facilitation costs fall into a number of discrete categories. As such, each category will require a different treatment to ensure it provides a strong signal of where entry provides the most benefit to customers. See Section 3.3, Section 3.4 and Section 3.5.

8. **Are wholesale service providers' growth plans the most appropriate determinant of the level of cross-subsidy provided to facilitation costs? If so, how can we ensure these plans are subject to appropriate scrutiny and review? If not, what other determinant(s) should be used and why?**

   Yes, we consider that the wholesale service providers' growth plans would be the most appropriate base case to be adopted. However, Sydney Water has a number of different types of growth plans that are developed depending on when the growth is likely to occur. The sequencing of growth affects the detail that is contained within the plans. Sydney Water could respond with more certainty to this matter, after seeing further detail from IPART on what would be included in the wholesale service provider's growth plans. See Section 3.4.2.

9. **Should the determination allow unregulated pricing agreements between the wholesale service provider and the wholesale customer if both parties agree? Please explain why or why not.**

   No. Consistent with our position on retail prices, we believe that allowing unregulated pricing agreements would inadvertently result in a loss of important existing safeguards under the current regulatory framework and leave an efficient business at risk of not being able to recover its long-term costs. See Section 3.6.

Options for implementing retail-minus pricing

Calculating the retail component

10. **What specific information would the wholesale service provider require to calculate the retail component of retail-minus pricing?**

    In order to calculate the retail component of retail-minus, the information provided by the wholesale customer would need to mirror the requirements in our price determination relating to water and wastewater services. This would ensure we have the correct information to calculate the relevant retail price for the wholesale service. See Section 4.3.2.

11. How can the wholesale service provider obtain accurate information (eg, the number of end-use customers and, where necessary, their consumption volumes in a wholesale customer's scheme) in order to calculate the retail component of retail-minus prices?

To obtain this information we would likely enter into contractual arrangements with the wholesale customer which outlines the requirements and timings for the information we need. We do not believe this would need to be covered by the Determination. See Section 4.3.2.

A system-wide average minus and net facilitation costs (Option 1)

12. Do you support the option of retail-minus average costs (plus average net facilitation costs) (Option 1) for fixing wholesale prices? Please explain why or why not.

Sydney Water supports this option as a default or standard wholesale price. This could be used for schemes where the wholesale customer is providing services that could appropriately be captured by an average deduction (or saving), such as retail and customer interface services to end-use customers, the operation and maintenance of local (ie within the development) reticulation and potentially some limited lead-in infrastructure. A schedule of values could also be developed to reflect more location specific facilitation savings relating to the provision of recycled water.

Option 1 may not be suitable where the wholesale customer will be providing services that have other large cost variables or are difficult to predict costs or net facilitation savings for, such as potential future schemes involving the delivery and operation of trunk infrastructure by the wholesale customer. In these circumstances, there should be an ability for either the wholesale customer or the public utility to seek a scheme-specific determination (Option 3). See Section 4.2.1 and Section 4.2.2.

13. If adopted, should Option 1 have a schedule of average efficient competitor minus percentages or values for different scenarios? If so, how many should it have, how should they be set and what should these figures be?

We think there is the ability to apply Option 1 at a greater level of delineation than one average percentage reduction for all types of schemes. A table of average efficient competitor cost categories could be calculated, that would apply depending on the different functions or services being provided by the wholesale customer to end-use customers, in lieu of these being provided by the public utility.

Option 1 should focus on the limited number of categories that have sufficient certainty to calculate an average deduction, or schedule of values, that could be used as cost components in a wholesale price. These are likely to reflect service components such as retail and customer interface services, operation and maintenance of local reticulation and (perhaps) some limited lead-in infrastructure. Some of these could be based on a per unit reduction (for example, $/kilometre serviced), rather than a generic percentage or per customer reduction.

Where a scheme involves other, more scheme-specific cost deductions, or if the location of the scheme will result in a material difference from the average in Option 1, a more scheme-specific pricing approach could be applied (our preference is for Option 3).

Examples of average efficient competitor minus cost categories that could be included in Option 1 are provided at Appendix C. See Section 4.2.2.

14. Can net facilitation costs be adequately incorporated into Option 1? If so, what should be the schedule of average or typical net facilitation costs, in terms of categories and values?

As above, we think that some net facilitation costs could be adequately incorporated into Option 1, which would allow a simple and certain default wholesale price to apply in appropriate circumstances. Some of these may be adequately covered by a system wide unit cost; others could involve a schedule of values. This would provide a minimal signal of where it may be most efficient to enter.

This would likely cover circumstances where net facilitation costs are administrative only or there are standard cost savings to the wholesale service provider resulting from operations conducted by the wholesale customer.

We would not support this option for more complicated wholesale schemes, particularly those where the wholesale customer is providing a significant amount of water and/or wastewater infrastructure in lieu of the public utility. We have not seen any wholesale schemes to date that have provided this level of infrastructure. As this is more likely to introduce locational differences, this type of potential scheme would merit a more scheme-specific pricing approach. See Section 4.2.2.

15. For Option 1, do you support aligning the determination period with our retail price reviews? If not, for how long should the determination apply?

As wholesale services is a new area of regulation, we strongly support a specific determination period of no more than five years in the first instance to provide certainty as to when the determination will be reviewed and to assess whether the regulatory approach is meeting is objectives. See Section 4.3.1.

A methodology for scheme-specific minus and net facilitation costs (Option 2)

16. Do you support a methodology for determining scheme-specific minus and net facilitation costs (Option 2)? Please explain why or why not.

No. Sydney Water does not support the use of Option 2 due to the high regulatory burden it places on us, and the high risk of dispute between the parties. Due to the immaturity of the market and public utilities' limited experience in the provision of wholesale services to date, we believe it would be difficult to ensure that a methodology would adequately or effectively cover all potential future wholesale scenarios. There may be potential to move to Option 2 once the market matures and there has been sufficient successful entry to warrant a more comprehensive approach to regulation. See Section 4.2.3.

17. What procedural steps and requirements should be included in our determination to support a methodology for scheme-specific minus and net facilitation costs?

As Sydney Water does not support Option 2, we have not considered this issue in our response.

18. Do you support our proposal to include a procedure for developing and registering a Wholesale Servicing Plan in our determination? Please explain why or why not.

If IPART decides to adopt Option 2, Sydney Water would support a procedure for developing and registering a Wholesale Servicing Plan to be included in its determination. We believe this would be a transparent way for the wholesale customer to understand Sydney Water's position when preparing the wholesale price. If the process is similar to the process we are required to follow for preparing Development Servicing Plans we support this as this is an open and transparent process to consider submissions on our proposal. If this is proposal is adopted by IPART, we would like an opportunity to further comment once we have more understanding how it would work in practice. See Section 4.3.4.

19. What should be included in a Wholesale Servicing Plan? Please provide details.

See Section 4.3.4 for detail on what should be included in a Wholesale Servicing Plan/Proposal.

20. How should the costs of preparing a Wholesale Servicing Plan be recovered? Who should pay and how?

In order to ensure certainty to the industry for the costs of preparing a Wholesale Servicing Plan, we would suggest that IPART set a regulated fee (taking into consideration the duration and complexity of preparing such plans) through this determination that the potential wholesale customer would be required to pay. This payment would need to be made regardless of whether the potential customer decided to enter into an agreement with Sydney Water for the supply of wholesale services after the wholesale price was determined. See Section 4.3.4.

21. What should be the methodology or formula for determining the scheme-specific minus component?

As Sydney Water does not support Option 2 in the short-term we have not included a detailed response to this question in this submission. See Section 4.2.3 for further comment.

22. What should be the methodology or formula for determining the scheme-specific net facilitation cost component?

As for Question 21, as we do not support this option in the short-term, we have not provided a detailed response to this question in this submission. See Section 4.2.3 for further comment.

23. If IPART determines a methodology to calculate scheme-specific minus and net facilitation costs, should the determination period be open-ended or set for a specific period (eg, the length of the retail price determination)?

Regardless of the pricing implementation approach adopted by IPART, as wholesale services is a new area of regulation we strongly support a specific medium-term determination period of no more than five years in the first instance to provide certainty as to when the determination will be reviewed and to assess whether the regulatory approach is meeting is objectives. See Section 4.3.1.

24. If a methodology for scheme-specific minus and net facilitation costs is adopted:

- **What should be the interim or default price until the incumbent utility has finalised a scheme's wholesale prices in accordance with the methodology?**
- **How can we ensure the incumbent utility finalises these prices in a timely manner?**
- **What, if any, measures should be adopted to account for differences between interim and final prices?**

If Option 2 is adopted, Sydney Water's preferred approach is that an interim price would apply based on Option 1, rather than the non-residential charge. Option 1 is aligned with the overall retail-minus approach proposed by IPART and more likely to more closely reflect the final wholesale price.

We would also wish to see a back-dating mechanism if IPART is to set a temporary wholesale price to allow either party to recover costs if the temporary wholesale price is higher or lower than the final price. The concept of a back-dating mechanism would provide an incentive for the wholesale providers and the wholesale customer to engage in good faith in any interim period and decreases the incentive for parties to demand unreasonable terms and conditions. See Section 4.3.3.

IPART determining scheme-specific minus and net facilitation costs (Option 3)

25. Do you support IPART conducting scheme-specific price determinations (Option 3)? Please explain why or why not.

Sydney Water supports Option 3 being available to set a bespoke wholesale price where a standard or default wholesale price (as set by Option 1) would not adequately capture the minus or net facilitation cost categories of a particular scheme. This would most likely apply to wholesale schemes that provide services above the minimum services covered under Option 1. We believe that using Option 3 to calculate a bespoke wholesale price removes what we consider to be an unacceptable risk of dispute and arbitration. See Section 4.2.4.

26. What steps should be included in IPART's price determination process?

Sydney Water supports the steps outlined by IPART on page 53 of the Discussion Paper as the most appropriate for determining a robust, open and transparent wholesale price.

Both the wholesale service provider and wholesale customer should have the ability to request a scheme-specific determination. IPART may wish to consider if it should have a role in determining whether there is merit in undergoing a determination, rather than applying the default wholesale price.

27. What should be included in a Wholesale Servicing Proposal?

In our view, a Wholesale Servicing Proposal is very similar to a Wholesale Servicing Plan. Please see Section 4.3.4 for detail on the information that should be included in a Wholesale Servicing Proposal.

28. Do you support open-ended periods for scheme-specific determinations? Please explain why or why not.

Regardless of the pricing implementation approach adopted by IPART, as wholesale services is a new area of regulation, we strongly support a specific determination period of no more than five years in the first instance. This provides certainty as to when the determination will be reviewed and allow an assessment of whether the regulatory approach is meeting is objectives. See Section 4.3.1.

29. If IPART conducts scheme-specific price determinations:

- **What should be the interim price until such determinations occur?**
- **What, if any, measures should be adopted to account for differences between interim prices and subsequent scheme-specific prices?**

Sydney Water's preferred approach is to use Option 1 as the interim price, rather than the non-residential charge. Option 1 is aligned with the overall retail-minus approach proposed by IPART and more likely to reflect the final wholesale price.

We would also wish to see a 'true-up' mechanism if IPART is to set a temporary wholesale price to allow either party to recover costs if the temporary wholesale price is higher or lower than the final price. The concept of a back-dating mechanism would provide an incentive for the wholesale providers and the wholesale customer to engage in good faith in any interim period and decreases the incentive for parties to demand unreasonable terms and conditions. See Section 4.3.3.

Appendix B Precedent for retail-minus

ACCC – Services Sydney

In December 2005, the Australian Competition Tribunal declared transport services provided by Sydney Water's North Head, Bondi and Malabar wastewater systems open to third party access. In early 2006, Sydney Water commenced negotiations with Services Sydney Pty Ltd (Services Sydney) on access to these declared services. The parties could not come to an agreed position on the appropriate access price. In response, Services Sydney sought arbitration by the Australian Competition Consumer Commission (ACCC) on the method for pricing access to the declared services. Each party proposed a different pricing methodology; Services Sydney proposed a building blocks plus methodology and Sydney Water proposed a retail-minus methodology. The ACCC released its final determination in July 2007, which supported Sydney Water's position.

The ACCC determined that the charge per end-use customer should be calculated using a retail-minus methodology, plus costs for facilitating access.[34] The methodology "for determining the per customer access charge is to be Sydney Water's retail price for sewerage/wastewater services relevant to each customer as determined (from time-to-time) by IPART, minus the avoidable costs for Sydney Water as a result of suppling the declared sewerage transportation services".[35] The ACCC noted the access price must include a contribution to postage stamp pricing.

The 2007 determination was the first application of access pricing in the Australian water industry. The ACCC "had regard to the structural features of the sector, including that Sydney Water is a vertically integrated supplier with regulated retails prices set on a geographically uniform basis".[36]

The ACCC decided that the retail-minus avoidable costs (RMAC) plus facilitation cost methodology was the most appropriate methodology for a number of reasons including:[37]

- "A key consideration in the determination of the general access pricing methodology is that it should promote efficient entry such that the access seeker and vertically integrated service provider will compete on merit".[38] Using a RMAC methodology that uses avoidable costs, rather than avoided costs, best achieves this.
- Excluding a contribution to postage stamp pricing would not promote efficient entry and effective competition as it would allow Services Sydney to 'cherry-pick' customers, which may result in: "pricing disparities between customers in the east and west of Sydney… [T]his would be undesirable to the extent to which there is public interest in having equity in prices across different geographic regions serviced by Sydney Water."[39]

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[34] ACCC, Access Dispute between Services Sydney Pty Ltd and Sydney Water Corporation, Arbitration report, 19 July 2007.

[35] ACCC, Access Dispute between Services Sydney Pty Ltd and Sydney Water Corporation, Arbitration report, 19 July 2007, p 1.

[36] ACCC, Access Dispute between Services Sydney Pty Ltd and Sydney Water Corporation, Arbitration report, 19 July 2007, p 2.

[37] ACCC, Access Dispute between Services Sydney Pty Ltd and Sydney Water Corporation, Final determination and Statement of reasons, 22 June 2007.

[38] ACCC, Access Dispute between Services Sydney Pty Ltd and Sydney Water Corporation, Final determination and Statement of reasons, 22 June 2007, p 52.

[39] ACCC, Access Dispute between Services Sydney Pty Ltd and Sydney Water Corporation, Final determination and Statement of reasons, 22 June 2007, p 53.

- The bottom-up approach used in the electricity industry does not fit with the water industry as Sydney Water is vertically integrated and subject to full price regulation.
- A methodology that results in prices that deter efficient entry would be against the interest of all those with rights to use the service. A RMAC methodology provides access seekers with certainty regarding the scope for profitable entry into the market, and lead to firms being driven to innovate, reduce costs and improve productivity.
- A price that allows cherry-picking may adversely affect Sydney Water's ability to "recover the costs associated with its investment in its sewerage network, and may therefore not promote economically efficient investment in these assets".[40]
- "IPART is obliged to consider economic efficiency under the IPART Act in determining Sydney Water's retail prices, and as such IPART would have regard to the extent to which the retail price structure promotes allocative efficiency."[41]
- A RMAC methodology for access pricing will incorporate the incentives for Sydney Water to reduce costs or improve productivity that results from IPART's regulation of Sydney Water's prices, in particular a CPI-X approach.[42]

UK Competition Appeal Tribunal

In the UK, a 2013 court case found that retail-minus avoided cost pricing was anti-competitive, which subsequently saw Ofwat move to an avoidable cost approach (although we note this has been superseded by market reforms currently being implemented under the *Water Act 2014*).[43]

Under England and Wales' arrangements for inset appointments (a form of entry into the sector), Albion Water took over the retail supply of water to Shotton Paper Mill, who was serviced by Welsh Water's network infrastructure. Welsh Water set the network charge to Albion Water based on retail-minus, contending that there was no avoided cost and that Albion Water had simply replaced Shotton Paper Mill as the interface for this sale.

Albion Water lodged a complaint with Ofwat stating that the access charge was excessive and created margin squeeze. Ofwat ruled that Welsh Water's network charge was correctly calculated. The case was appealed in both the Competition Appeal Tribunal and the Court of Appeal who both ruled in favour of Albion Water. The Competition Appeal Tribunal argued that margin squeeze was occurring, and that Albion Water was being required to support both Welsh Water's and its own overheads. The Competition Appeal Tribunal found that the subtraction of avoided costs was not sound and that in the long-term all retail costs could become avoidable

[40] ACCC, Access Dispute between Services Sydney Pty Ltd and Sydney Water Corporation, Final determination and Statement of reasons, 22 June 2007, p 55.

[41] ACCC, Access Dispute between Services Sydney Pty Ltd and Sydney Water Corporation, Final determination and Statement of reasons, 22 June 2007, p 58.

[42] ACCC, Access Dispute between Services Sydney Pty Ltd and Sydney Water Corporation, Final determination and Statement of reasons, 22 June 2007.

[43] See Ofwat, *The costs principle and access pricing: Companies operating wholly or mainly in England*, 18 August 2014. Ofwat's historical interpretation of the 'costs principle' was that it necessitated a 'retail-minus' approach to access pricing: to calculate an access price, a water company starts with its own retail price to end-customers, subtracting any retail costs that are judged to be avoidable, reducible or recoverable in some other way ('ARROW' costs), then adding back any additional net expenses of dealing with the licensee. Given the current availability of more disaggregated information, and the future removal of the 'costs principle' from legislation, in any determinations relating to non-household retail access to wholesale services, Ofwat now intends to set access prices in line with a 'bottom-up' wholesale charging approach, as opposed to the retail-minus approach used to date.

Appendix C Future scenarios of market entry

As discussed in Section 4.2, we consider that the pricing approach determined by IPART needs to address the possibility of a number of future scenarios of market entry. In this appendix, we describe four potential scenarios for wholesale customers and present our preferred pricing approach for each component of these scenarios.

For clarity, we outline a number of scenarios which we believe do not constitute wholesale customer scenarios so would not trigger any component of the wholesale pricing framework.

Please note, that we have not provided specific figures for actual deductions for facilitation costs. Sydney Water is still assessing these costs and would be pleased to follow-up with IPART to provide further information if required.

Table 5 (page 62) summarises the scenarios that we discuss in further detail below.

No further wholesale (Scenario A)

The market for wholesale services is, at present, very small. Sydney Water currently only provides wholesale services to three WIC Act schemes. All other WIC Act schemes in our area of operations are stand-alone schemes that have not sought wholesale services from Sydney Water.

It also appears unlikely that the wholesale services market will represent a significant proportion of overall service provision in the short to medium-term. For example, even if all new growth in Sydney was serviced by a non-Sydney Water provider over the next five years (which is unlikely), this would only represent just over 5 per cent of our total customer base.

Given the infancy of the market, and noting the comments of WIC Act licensees at the public hearing in December, it is possible that there may be little future interest in the purchase of wholesale services if IPART determines wholesale prices using a retail-minus approach. If this was to occur, it is important that the administrative and regulatory effort made by IPART and public utilities to calculate wholesale prices is minimised.

Wholesale with recycled water (Scenario B)

Services purchased from the Sydney Water[44]

- Wholesale water service
- Wholesale wastewater service

Service components provided by the wholesale customer

- Retail functions
- Operation and maintenance of small reticulation within a development

Additional scheme features

- Recycled water treatment plant built and operated by wholesale customer

[44] Note, Sydney Water is the wholesale service provider.

This scenario assumes wholesale service requests will continue under a retail-minus pricing approach in a manner we have already seen for **brownfield developments**. Given the requirement under the current WIC Act that wholesale customers must provide a new source of water, it is likely entry will continue to include the provision of the additional service of recycled water.

Figure 2 and Figure 3 show which service components are provided by the wholesale customer and Sydney Water under Scenario B.

Figure 2 - Wastewater service component providers under Scenario B

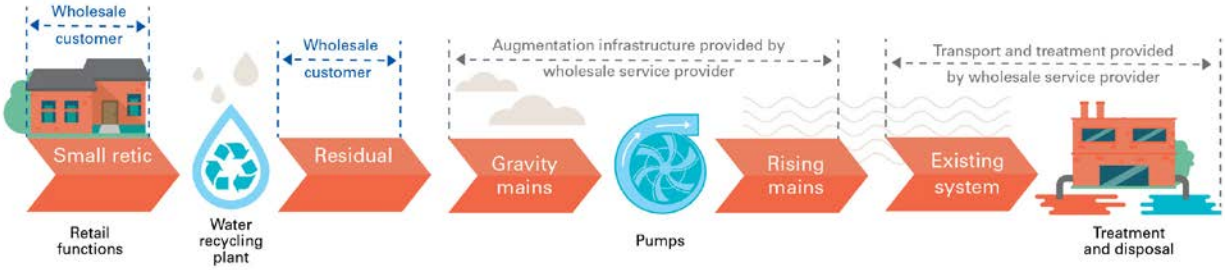
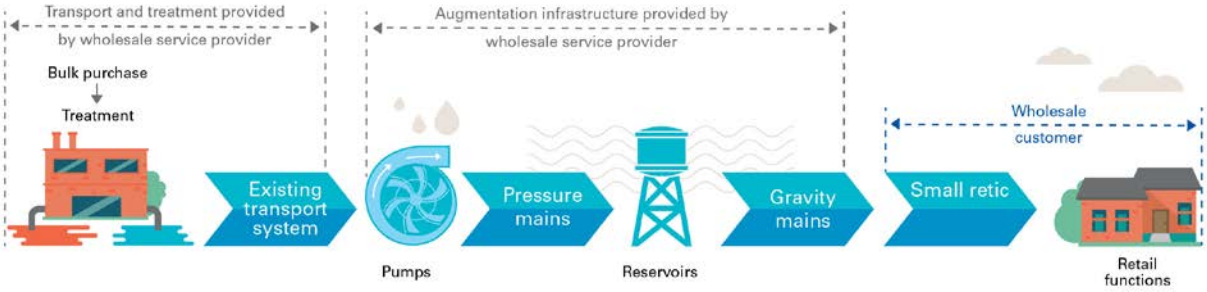


Figure 3 - Water service component providers under Scenario B



Minus component costs - Retail functions conducted by the wholesale customer (Scenarios B, C, D and E)

Under all the remaining scenarios (B, C, D and E), we envisage the wholesale customer would take over all customer facing activities. These include metering, billing and all customer interactions (call centre, face-to-face, and all other forms of communication).

Minus component costs - Infrastructure related functions conducted by the wholesale customer – operation and maintenance of small reticulation (Scenarios B, C, D and E)

Under scenario B, the wholesale customer neither builds nor operates any of the additional large infrastructure required to provide services under the least cost servicing option[45]. They may however receive some small reticulation infrastructure, gifted by the developer. As such, we

[45] The least cost servicing option is the preferred servicing option identified by a high level integrated precinct scale servicing strategy conducted by the public water utility. These strategies examine a range of integrated servicing options including stand-alone systems and existing system augmentation combined with the possibility of recycled water and/or rainwater tanks to meet BASIX requirements.

believe it would be possible to provide a schedule of wholesale prices to cover this scenario without introducing significant risk of providing an incentive to cherry-pick low cost to serve areas.

The capital cost to build small reticulation may vary significantly from scheme to scheme, even on a unit cost per linear meter basis. However, as small reticulation is funded by developers and gifted to water utilities, the impact on the Sydney Water's cost to serve is almost entirely driven by any additional operation and maintenance of such infrastructure. The cost of operation and maintenance of small reticulation will have some site-specific influences; however, in our view, the potential benefit of achieving this level of accuracy in estimating costs would not be worth the administrative cost of the detailed analysis required to quantify these factors. Rather, use of a single cost per linear meter should suffice for operation and maintenance of the small reticulation of both water and wastewater services.

Scenario B (i) – In-sequence

In this scenario, the augmentation infrastructure is built by the Sydney Water within the current retail price determination at the same time as set out in the Sydney Water's capital investment program.

As the Sydney Water is building the required augmentation infrastructure at the same time as the Sydney Water had already planned to build it, there is no need for these augmentation costs to be considered in the wholesale price. This is because those costs will have already been built into the retail revenue requirement of the Sydney Water in that provider's current retail price determination.

Scenario B (ii) – Out-of-sequence

In this scenario the augmentation infrastructure is built within the current retail price determination but either not part of or accelerated relative to the Sydney Water's capital investment program.

If the Sydney Water builds any of the required augmentation infrastructure in a different timeframe or manner other than set out in the Sydney Water's infrastructure investment program, the additional costs should be borne by the developer. Any savings to the Sydney Water should also be treated in the same way as those resulting from the developer-funded infrastructure that currently occurs for out-of-sequence development. This would create a level playing field between developers wishing to obtain services out-of-sequence via a wholesale customer and those who wish to obtain services directly from the Sydney Water. The Sydney Water's existing policy should provide a clear, transparent framework for the treatment of the additional costs to augment the systems in these cases.

Facilitation savings – Wastewater transport pumping savings (Scenarios B and C)

We believe facilitation savings for water recycling for both Scenarios B and C could be estimated using existing operational data. The first potential downstream wastewater operational saving for the Sydney Water resulting from the operation of a recycled water plant by the wholesale customer will be a net reduction in any wastewater pumping required.

A schedule of facilitation savings per megalitre of wastewater recycled ($/ML) could be developed for this component, based on recent operational data for each wholesale connection point. For connection points where the downstream transport system does not flow through any pumping stations (gravity only) the wastewater pumping saving will be zero. As such, this would be a

schedule of values so would maximise the potential for a wholesale customer to implement a recycled water scheme and request wholesale services where it provides the most operational benefit and consequently, the largest reduction to average end-use customer bills.

Facilitation savings – Wastewater treatment savings (Scenarios B and C)

The second potential downstream wastewater operational saving for the Sydney Water resulting from the operation of a recycled water plant by the wholesale customer will be a reduction in volumetrically driven chemical dosing at the wastewater treatment plant. The only chemical which can be reduced for the type of reduced volumes due to operation of a recycled water plant is that used in the main disinfection process at the downstream wastewater treatment plant. This is because all other chemicals are dosed according to the mass of pollutants and/or nutrients within the wastewater. Typically, when a recycled water treatment plant relies on the existing wastewater system to discharge residual, the reduction in the total mass of pollutants and/or nutrients which enter that wastewater system is negligible. If this were not the case, a scheme-specific facilitation costs would need to be calculated.

A schedule of facilitation savings per megalitre of wastewater recycled ($/ML) for this component could be developed using recent operational data for each wholesale connection point. For connection points where the downstream treatment plant does not dose any disinfection chemicals, the chemical dosing saving will be zero. As such, this would be a schedule of values so would maximise the potential for a wholesale customer to implement a recycled water scheme and request wholesale services where it provides the most operational benefit and consequently, the largest reduction to total costs.

Facilitation savings – Capital investment program savings resulting from operations of the wholesale customer (Scenarios B and C)

It is possible that the operations of a wholesale customer may result in a delay or downsize of a capital project planned by the Sydney Water for infrastructure connected to that customer's scheme. In particular, the operation of a recycled water treatment plant (RWTP) could potentially allow downsize or delay of future potable water system upgrades[46]. Also, as renewals of the wastewater system are almost entirely driven by the peak flows associated with rainfall ingress, it is likely the impact of a RWTP operation on those capital projects would be too small to be measured.

The assessment of the potential impact would be highly scheme-specific. Due to the bespoke nature of these costs, we believe this would be most appropriately addressed via a scheme-specific determination by IPART (ie Option 3). We would welcome discussion with IPART as to how we could support such determinations.

Facilitation costs – Wholesale customer contract administration (Scenarios B, C, D and E)

Sydney Waters have already spent significant time and resources developing wholesale customer contracts. Considering these contracts have now been refined during implementation with a

[46] We note that in Sydney Water's experience, when comparing the investment required to build single (potable only) reticulation networks and dual reticulation networks (potable and recycled) with potable water top-up there is no significant difference in investment required for the potable network components.

number of wholesale customers, the standard terms and conditions will already go a long way towards industry best practice. As such, we believe a standard contract implementation fee would be a reasonable way to recover these costs over time as the wholesale market develops.

We also believe hourly rates for additional contract negotiation would provide an appropriate incentive for wholesale customers to weigh up the costs and benefits of requesting bespoke changes to the standard terms and conditions not offered to other wholesale customers.

Given that the nature of the connection between the Sydney Water's and wholesale's customer infrastructure will be relatively simple in Scenario B, it is unlikely that further wholesale customer interaction fees would be necessary.

Wholesale with infrastructure and recycled water (Scenario C)

Services purchased from the Sydney Water[47]

- Wholesale water service
- Wholesale wastewater service

Service components provided by the wholesale customer

- Retail functions
- Operation and maintenance of small reticulation
- Build and operate network augmentation infrastructure (mains, pumping stations and/or reservoirs)

Additional scheme features

- Recycled water treatment plant built and operated by wholesale customer

This scenario again assumes wholesale service requests will continue under a retail-minus pricing approach. Given the current context where wholesale customers must provide a new source of water under the WIC Act, and which allows licensees to build and operate water industry infrastructure, this is also a plausible scenario. We have not seen this scenario of entry as yet but imagine it could occur in new **greenfield developments** in the future.

Figure 4 and Figure 5 below show which components are provided by the wholesale customer and Sydney Water under Scenario C.

[47] Note, the Sydney Water is the wholesale service provider.

Figure 4 - Wastewater service component providers under Scenario C

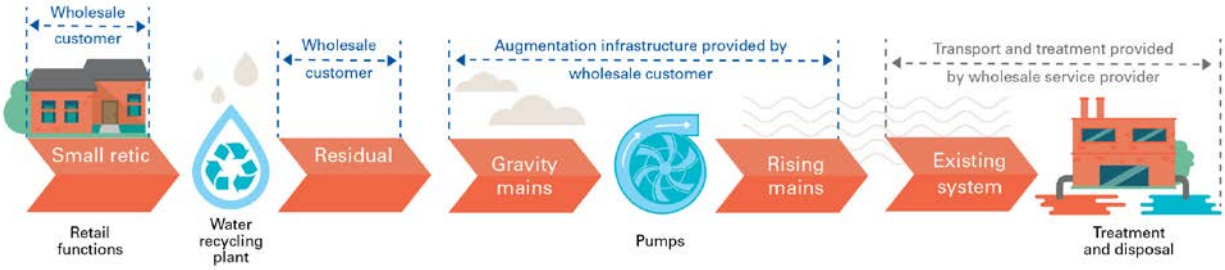
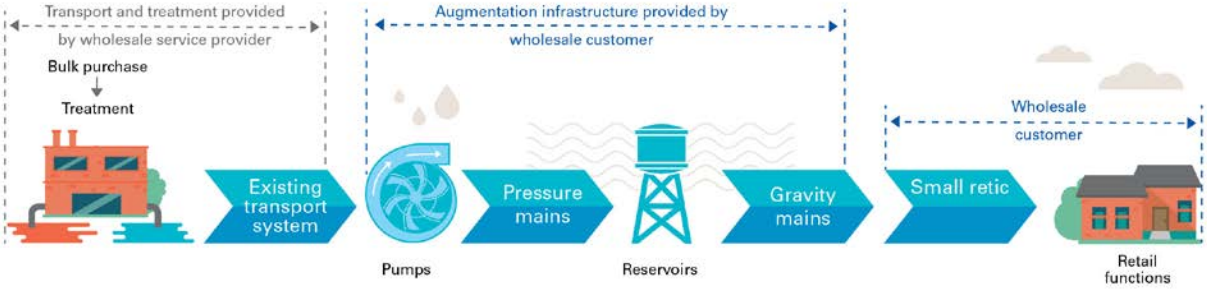


Figure 5 - Water service component providers under Scenario C



The minus - Retail and infrastructure functions conducted by the wholesale customer

Under scenario C, the wholesale customer will conduct the retail functions and may receive some small reticulation infrastructure, gifted by the developer as described under Scenario B.

However, they will also build and/or operate some of the additional large infrastructure required to provide services under the least cost servicing option. As such, we believe it would not be possible to provide a schedule of wholesale prices to cover this scenario without introducing significant risk of providing an incentive to cherry-pick area where such infrastructure would not be needed. The capital cost to build and operate large augmentation infrastructure varies significantly from scheme to scheme. As such, we suggest that a scheme-specific wholesale price determination by IPART would be the most appropriate pricing approach for this scenario.

In our experience, there are two cases for the additional infrastructure minus for Scenario C which need to be considered.

Scenario C(i) – In-sequence

In this scenario the augmentation infrastructure is built by the wholesale customer within the current retail price determination at the same time as set out in the Sydney Water's capital investment program.

If a wholesale customer builds any of the required augmentation infrastructure at the same time as the Sydney Water had already planned to build it, the minus should include the full cost to build that infrastructure. This is because those costs will have already been built into the retail revenue requirement of the Sydney Water in that provider's current retail price determination. The minus for each component of the infrastructure that the wholesale customer builds should be equal to that component's building block contribution to the Sydney Water's retail revenue requirement.

Scenario C(ii) – Out-of-sequence

In this scenario the augmentation infrastructure built within the current retail price determination but either not part of or accelerated relative to the Sydney Water's capital investment program.

If a wholesale customer builds any of the required augmentation infrastructure in a different timeframe or manner other than set out in the Sydney Water's infrastructure investment program, the additional costs should be borne by the developer.

Any cost savings to Sydney Water should be treated in the same way as developer-funded infrastructure that currently occurs as out-of-sequence development. This would create a level playing field between developers wishing to obtain services out-of-sequence via a wholesale customer and those who wish to obtain services directly from the wholesale provider. Our existing policy should provide a clear, transparent framework for the treatment of the additional costs to augment the systems in these cases.

Facilitation savings – Wastewater operations (transport pumping and treatment)

Similarly as for Scenario B, there are likely to be wastewater operation facilitation savings for the Sydney Water for Scenario C.

Facilitation savings – Capital infrastructure program savings

Similarly as for Scenario B, there may be capital infrastructure facilitation savings for the Sydney Water for Scenario C.

Facilitation costs – Wholesale customer interaction and contract administration (Scenarios C and E)

Similarly for Scenario B, we believe a standard contract administration fee would be appropriate, with hourly rates set for bespoke changes.

In addition to this, because Scenario C (and E) involve the wholesale customer owning and operating major infrastructure, we believe an additional hourly rate should apply to the additional facilitation required by the wholesale provider to liaise with the wholesale customer on infrastructure operational issues. We believe it important to capture this as a separate cost so the wholesale customer can assess whether it is likely to be more cost effective for them to build, own and operate the augmentation infrastructure along with any associated costs for interaction with the Sydney Water's operational arm or simply request the wholesale provider to build and operate all the augmentation infrastructure.

Wholesale only (Scenario D)

Services purchased from the Sydney Water[48]

- Wholesale water service
- Wholesale wastewater service

Service components provided by the wholesale customer

- Retail functions
- Operation and maintenance of small reticulation

Additional scheme features

- Nil

This scenario is not possible under the current WIC Act. However, once the Amended WIC Act commences, it will be possible for a wholesale customer to sell water and or wastewater services without providing a new source of water.

Figure 6 and Figure 7 show which service components are provided by the wholesale customer and Sydney Water under Scenario D.

Figure 6 - Wastewater service component providers under Scenario D

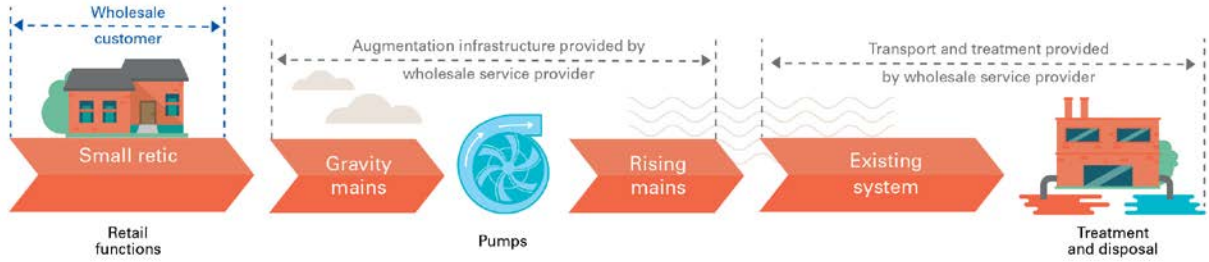
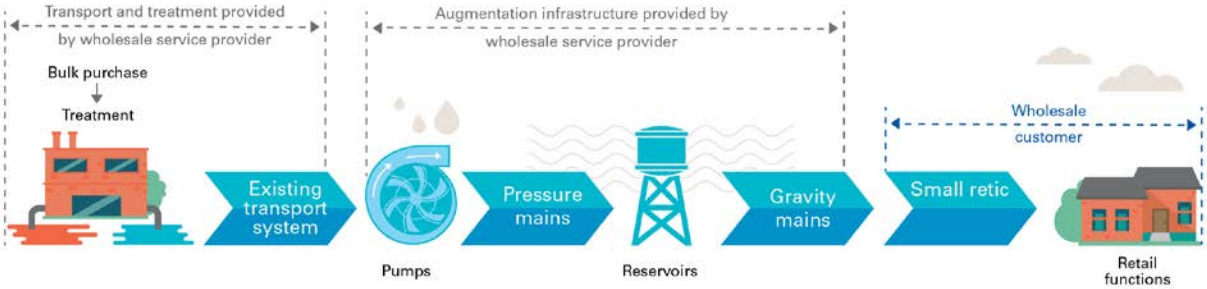


Figure 7 - Water service component providers under Scenario D



[48] Note, the Sydney Water is the wholesale service provider.

The key difference for the wholesale prices will be that there is unlikely to be any facilitation savings from savings in downstream wastewater operations nor savings from any potential capital infrastructure program investment. The other cost categories of the retail and infrastructure related functions conducted by the wholesale customer will be identical to Scenario B). Also, the same framework should apply to this Scenario if it is an in-sequence or out-of-sequence development as described in Scenario B (i) and B(ii).

Wholesale with infrastructure (Scenario E)

Services purchased from the Sydney Water[49]

- Wholesale water service
- Wholesale wastewater service

Service components provided by the wholesale customer

- Retail functions
- Operation and maintenance of small reticulation
- Build and operate network augmentation infrastructure (mains, pumping stations and/or reservoirs)

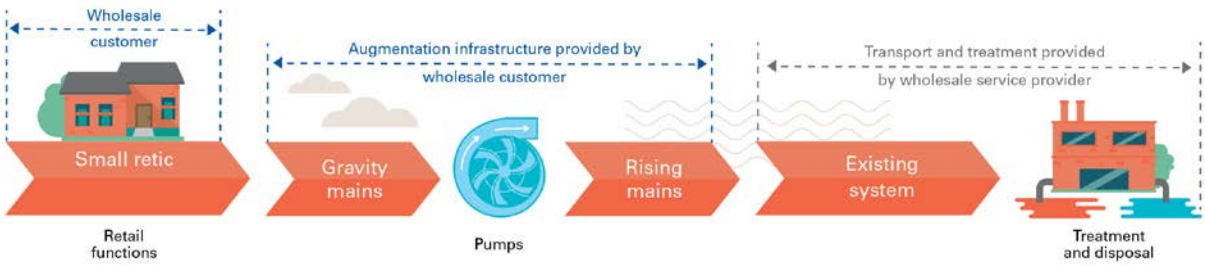
Additional scheme features

- Nil

This scenario is again not possible under the current WIC Act but will be once the WIC Amendment commences.

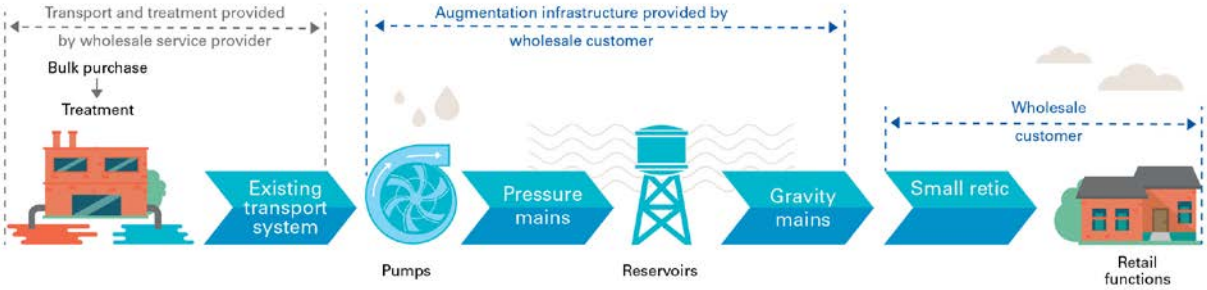
Figure 8 and Figure 9 show which components are provided by the wholesale customer and Sydney Water under Scenario E.

Figure 8 - Wastewater service component providers under Scenario E



[49] Note, Sydney Water is the wholesale service provider.

Figure 9 - Water service component providers under Scenario E



The key difference for the wholesale prices will again be that there is unlikely to be any facilitation savings from savings in downstream wastewater operations nor savings from any potential capital infrastructure program investment. The other cost categories of the retail and infrastructure related functions conducted by the wholesale customer will be identical to Scenario C. Also, the same framework should apply to this Scenario if it is an in-sequence or out-of-sequence development as described in Scenario C (i) and C (ii).

Scenarios which do not constitute wholesale services

A water connection to top up a water recycling scheme

We do not believe this currently constitutes a wholesale service as the customer is not on-selling the water as a potable water service. Importantly, at this time, potable water services differ in nature to recycled water services in both price and restrictions on end-use. Potable water services are currently priced higher than recycled water services with relatively less restrictions on end-use. If at some time in the future, this paradigm was to change, the nature of potable top-up connections would need to be reconsidered.

An entity provides a stand-alone water or wastewater service within the Sydney Water's area of operations

We do not believe this situation should trigger the transfer of any facilitation costs or savings as the entity would neither be a customer of the Sydney Water nor would they be on-selling the Sydney Water's services.

Table 5 - Summary of scenarios and retail-minus cost components

		Public Water Utility scenario (no WC*)	Wholesale Customer (WC) scenarios:			
		Scenario A	**Wholesale with recycled water (Scenario B)**	**Wholesale with infrastructure and recycled water (Scenario C)**	**Wholesale only (Scenario D)**	**Wholesale and infrastructure (Scenario E)**
Infrastructure funding and operation						
Internal mains (small reticulation)	**Built**	Developer	Developer/WC agreement	Developer/WC agreement	Developer/WC agreement	
	Funded	Developer (gifted to PWU**)	Developer/WC agreement	Developer/WC agreement	Developer/WC agreement	
	Operated	PWU	WC	WC	WC	WC
Network augmentation infrastructure (mains, pumping stations, reservoirs)	**Built**	PWU	PWU	WC	PWU	WC
	Funded	**In-sequence:**[50] Through IPART determined retail prices[51] **Out-of-sequence:**[52] In line with PWU's IFP***	**In-sequence**: Through IPART determined retail prices **Out-of-sequence**: Consistent with PWU's IFP	**In-sequence**: Through EEC in IPART determined wholesale prices[53] **Out-of-sequence**: Consistent with PWU's IFP	As for Scenario B	As for Scenario C
	Operated	PWU	PWU	WC	PWU	WC
On-site recycled water facility	**Built**	-	Developer/WC agreement	Developer/WC agreement	-	-
	Funded	-	Developer/WC agreement	Developer/WC agreement	-	-
	Operated	-	WC	WC	-	-
Wholesale pricing: ***Retail prices***			Water usage charge × volume of water purchased +	As for Scenario B	As for Scenario B	As for Scenario B
			Water service charge × no. of end-use water customers[54] +			
			Wastewater usage charge × chargeable wastewater volume +			
			Wastewater service charge × end-use wastewater customers			
Equally Efficient Competitor Costs (EEC)			Retail costs (billing, meter reading and customer facing activities)	As for Scenario B **and annualised costs of large infrastructure (CAPEX and OPEX)**	As for Scenario B	As for **Scenario C**
			Small reticulation OPEX – water and wastewater			
Facilitation costs and savings			Administration costs	As for Scenario B	As for Scenario B **less: Wastewater OPEX savings**	As for Scenario B **less: Wastewater OPEX savings**
			Wastewater OPEX savings (pumping, chemicals)			
			In-sequence: Any other OPEX or CAPEX costs/savings			
			Out-of-sequence: Cost/benefit of bringing forward infrastructure****			

* **WC**: Wholesale Customer ** **PWU**: Public Water Utility *** **IFP**: Public Water Utility's Infrastructure Funding Policy **** Likely to be assessed scheme by scheme.

[50] In-sequence: Infrastructure built within the current determination period, at the same time as specified the PWU's growth plan and capital investment program.
[51] This infrastructure is in the PWU's growth plan and capital investment program, therefore funding is recovered through retail prices.
[52] Out-of-sequence: Infrastructure accelerated relative to or not included PWU's growth plan and not on the PWU and capital investment program but wholesale customer and/or developer wishes to have it built in current retail pricing determination period.
[53] As this infrastructure was in the PWU's capital investment program with funding assumed to be recovered through retail prices, IPART must determine how this should be accounted for in the EEC component of the wholesale prices.
[54] Customer numbers based on the number of properties and/or dwellings and/or meters.

Appendix D Model analytical framework

Sydney Water has expressed concern that IPART has not provided an analytical framework to justify why the reasonably efficient competitor cost (REC) standard is superior to an equally efficient competitor (EEC) approach. This is particularly the case given the known short-to-medium term inefficiencies of the reasonably efficient competitor approach, and the highly speculative long-term dynamic efficiency benefits.

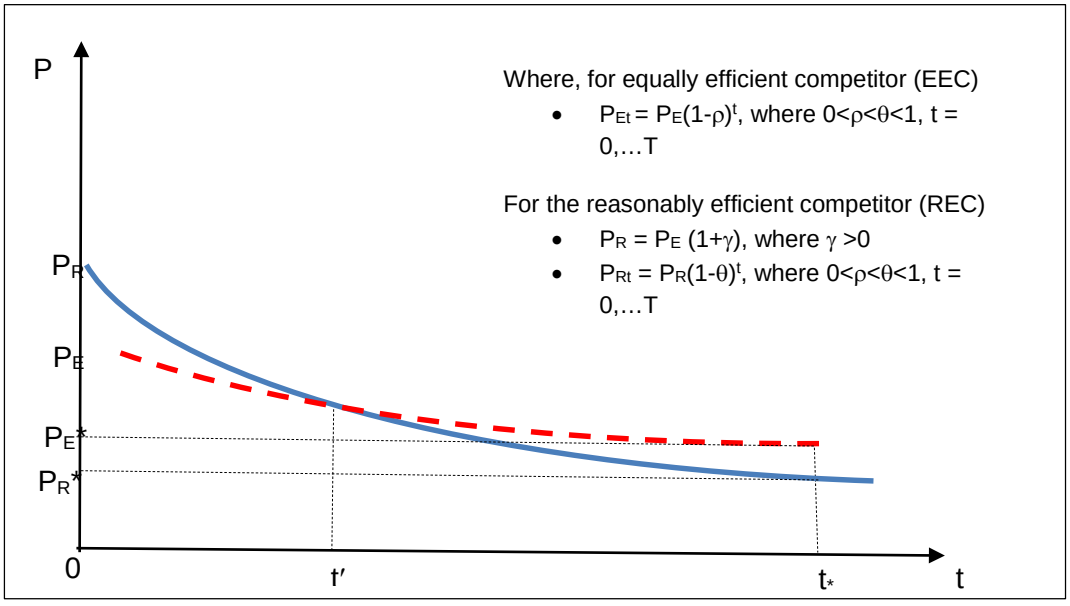
A simple analytical framework for assessing the REC and EEC standards

A simple analytical framework for assessing the REC and EEC for customers can be established using the diagrams in Figure 10 and Figure 11.

Figure 10 shows how prices could decrease over time under the two different cost standards. This highlights the factual EEC versus the counterfactual REC scenarios. In the example, the diagram illustrates a scenario where it is assumed that:

- the REC cost standard results in a higher initial price for customers than the EEC cost standard – i.e. $P_E < P_R = P_E(1+\gamma)$
- over the longer term the REC standard, by promoting greater competitive pressure than the EEC, results in prices decreasing by a greater rate over time – i.e. $\rho < \theta$. This means that beyond time:
  - t', price under the EEC standard will exceed the price under an REC cost standard. Alternatively, before time t', the price under an REC approach will be above the EEC approach.
  - t*, the present value of consumer surplus under the REC will exceed the EEC.

Figure 10 - Prices under a REC versus EEC cost standard over time



The outcomes in Figure 10 correspond to the pricing and consumer surplus in Figure 11.

Figure 11 - Prices and consumer surplus under the REC and EEC cost standard

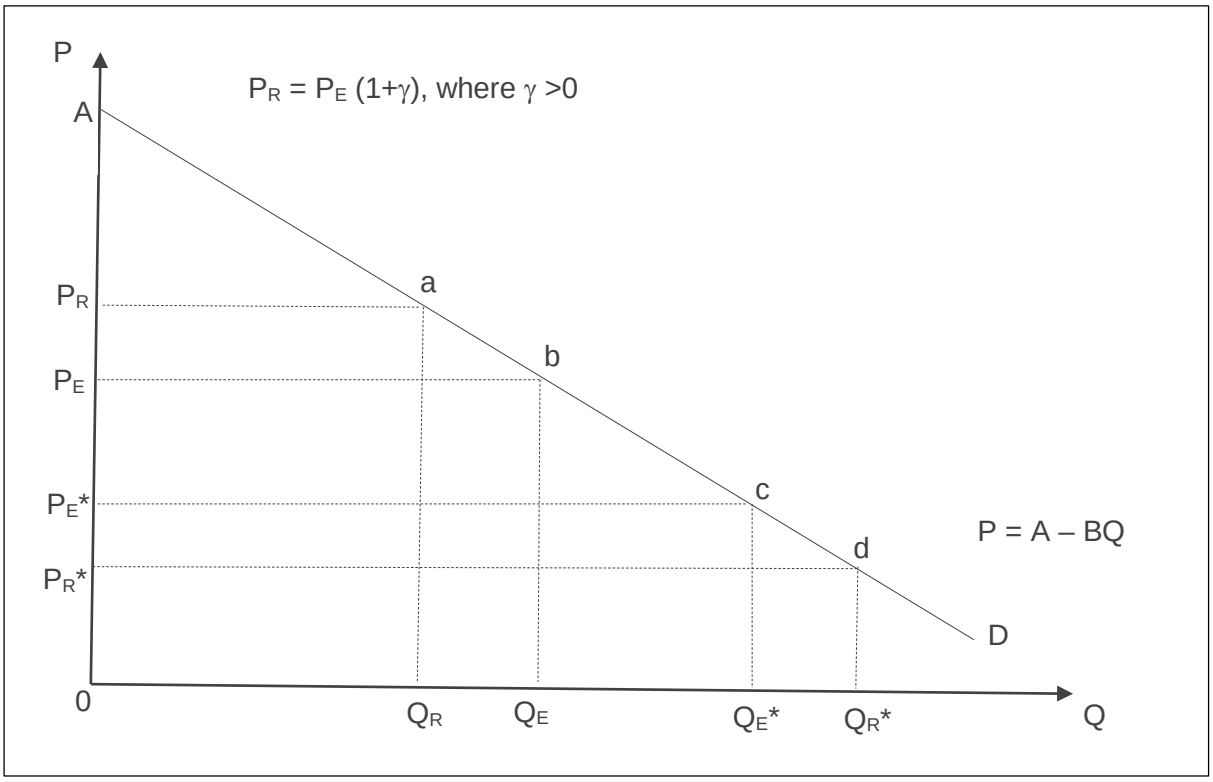


Figure 11, where the prices correspond to the outcomes in Figure 10, shows that:

- initially at time t = 0 under the EEC approach the price is P_E and customers derive consumer surplus (S_E) of area AbP_E, while under the REC approach the price is at the higher level of P_R, which yields consumer surplus (S_R) of area AaP_R
- as price under both cost standards price decreases over time, the consumer surplus increases. At time t* in Figure 10 it is assumed the present value of the sum of consumer surplus over time is equal under the REC and EEC approaches. At this time consumer surplus under the REC standard will be equal to area AdP_R* and exceed the consumer surplus under the EEC standard, which is equal to area AcP_E*

The results show that to the extent:

- the REC is not expected to promote greater entry than under the EEC approach, it will lead to a similar decrease in price, and therefore the dynamic efficiency benefits will not offset the short-to-medium term losses.
- the REC results in a higher initial price increase that only decreases over time slightly more than the EEC standard, the point where the present value of the consumer surplus will be equal is further out into the future. Potentially t^* may be so far out into the future so as to not be worthwhile pursuing.
- the price of the REC standard is equal to the EEC standard at t', and prices decrease at the same rate under both cost standards beyond this point, the REC approach leads to a worse outcome for consumers.

The analytical solution

From the outcomes illustrated in Figure 10 and Figure 11, analytical solutions can be derived. To simplify the analytical solution, it is assumed that instead of prices decreasing at the rates of ρ and θ in Figure 10, that consumer surplus under the two approaches increases by these respective rates.

That is, consumer surplus now under both cost standards at any time t will be equal to:

- Consumer surplus under a EEC standard at any time t
  - $S_{Et} = S_E(1+\rho)^t$, where t =0,…T and $0 < \rho < \theta < 1$
- Consumer surplus under a REC standard at any time t:
  - $S_{Rt} = S_R(1+\theta)^t$, t =0,…T and $0 < \rho < \theta < 1$

Assuming a discount rate of r, under each cost standard, the present values of consumer surplus under each cost standard is,

- EEC

$$\sum_{t=0}^{T} \frac{S_E(1+\rho)^t}{(1+r)^t} = \frac{(1+r)S_E}{(r-\rho)}\left(1-\left(\frac{1+\rho}{1+r}\right)^{t^*+1}\right)$$

- REC

$$\sum_{t=0}^{T} \frac{S_R(1+\theta)^t}{(1+r)^t} = \frac{(1+r)S_R}{(r-\theta)}\left(1-\left(\frac{1+\theta}{1+r}\right)^{t^*+1}\right)$$

By equating the present values of the stream of consumer surpluses under the two cost standards, it follows that at time t*:

$$\frac{S_E}{(r-\rho)}\left(1-\left(\frac{1+\rho}{1+r}\right)^{t^*+1}\right) = \frac{S_R}{(r-\theta)}\left(1-\left(\frac{1+\theta}{1+r}\right)^{t^*+1}\right)$$

This equation can be rearranged and solved for t*.

Once t* is a time where the REC consumer surplus exceeds the EEC consumer surplus. Once t* is known a decision can be made as to whether this is an appropriate length of time to wait for the benefits to materialise. This provides a robust analytical framework for assessing the trade-off between the short-to-medium term inefficiencies of the REC approach and the potential long-term dynamic efficiency benefits.

Appendix E Wholesale pricing formula

This appendix includes a more detailed discussion of our views on appropriate wholesale price formulae, in response to the proposals put forward in IPART's Discussion Paper. This is what we believe would need to be used by IPART for determining wholesale prices. We note that these are our preliminary views, which may be subject to change after further consideration of other submissions and throughout the next steps of the determination process.

Our preferred wholesale price formula

Retail-minus is typically applied where a vertically integrated firm controls the supply of an essential input required by an entrant to compete in a downstream market and where the integrated firm and entrant either compete in or for the same downstream market.[55]

As discussed throughout this report, we do not agree that the Reasonably Efficient Cost (REC) standard is an appropriate standard to use to calculate the 'minus' component. Accordingly, the information below is based on our preferred use of an 'as efficient' minus cost component.

We propose that a general wholesale price formula should be:

$$\textit{Wholesale Service Price} = PSP - EEC + NF_A.$$

Where:

- *PSP* is the postage-stamp price
- *EEC* is the incremental cost of an equally efficient competitor producing the final retail output and,
- NF_A is the net facilitation costs of proving access, which can be positive or negative.

The calculation of the *EEC* costs within the retail-minus formula could take the form of the present value of a stream of annualised per unit forward looking costs saved, written as:

$$EEC \cong \frac{NPV\sum_{i=1}^{n}\left(Cost_i^I + \cdots + Cost_n^I\right)}{NPV\sum_{i=1}^{n}\left(Demand_i^I + \cdots + Demand_n^I\right)}.$$

Where:

- $\boldsymbol{Cost_i^I}$ — is the long-run incremental cost saved from the decrement in retail demand from providing wholesale access
- $\boldsymbol{Demand_i^I}$ — is the incremental decrease in retail demand to Sydney Water associated with providing wholesale access and,
- $\boldsymbol{i = 1,\ldots,n}$ is the number of years over which the cost of the project is expected to be recovered.

Noting both incremental cost (EEC) and incremental demand is the respective difference between the 'world as is' or 'baseline (B)' and the 'world with entry (E)' scenarios, as outlined below. The baseline represents a case in which no entry occurs and Sydney Water services the downstream demand (that an entrant would otherwise serve) and incurs the relevant costs in providing the service. The entry scenario involves wholesale entry and assumes that Sydney Water now no

[55] This structure is described in economics as one-way access.

longer serves the downstream demand, but rather the entrant serves the demand. In this scenario, Sydney Water now incurs only the related costs of serving the lower demand (plus facilitation costs). This means that cost and demand can be written as:

$$Cost_i^I = NPV \sum_{i=1}^{n} \left(Cost_i^B - Cost_n^E\right)$$

$$Demand_i^I = NPV \sum_{i=1}^{n} \left(Demand_i^B - Demand_n^E\right).$$

We propose that $Cost_i^I$ can be calculated in a similar manner as described by IPART in its Issues Paper and by making use of Sydney Water's Wholesale Servicing Proposal:

$$\sum_{i=1}^{n} Cost_i^I = \sum_{i=1}^{n} \left(Capital\ Stock_i^I + Opertaing\ Cost_i^I + Working\ Capital_i^I x Return\ on\ Assets_i^I + Tax_i^I\right).$$

The above formula describes a wholesale price that is equal to the sum of the incremental cost (*EEC*) of access − the cost that would not be incurred by the integrated firm should entry occur − and the integrated firms lost retail profits[56] now earned by the new entrant.

This pricing approach builds a pro-competitive feature in to the wholesale price by making the incumbent utility financially no worse off (via a contribution to both fixed and common costs, including an appropriate contribution to postage-stamp pricing). This allows the incumbent utility to be indifferent (in the short or long-run) between providing wholesale services or servicing end-use customers themselves.

[56] Technically this is equal to the opportunity cost to the incumbent of providing access.

Appendix F HoustonKemp Report

HOUSTONKEMP
Economists

Should Wholesale Water and Sewerage Prices Exclude Costs of a Reasonably Efficient Competitor?

A Report for Sydney Water

31 May 2016

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Disclaimer

Contents

Executive Summary

The Independent Pricing and Regulatory Tribunal of New South Wales (IPART) has recently commenced its review of wholesale water and sewerage pricing for Sydney Water and Hunter Water. IPART's preliminary opinion is that wholesale prices should be set with reference to a **'retail-minus'** pricing methodology. This involves setting the price based on the existing retail water or sewerage price as determined by IPART, less an amount set with reference to a competitor cost benchmark.

IPART's preferred cost benchmark reference is the costs that would be incurred by a **'reasonably efficient competitor'** plus an adjustment to account for any change in Sydney Water's costs arising as a consequence of providing wholesale water or sewerage services, which it calls '**net facilitation costs'**.

I have been asked by Sydney Water to provide my opinion as to the appropriateness of using a reasonably efficient competitor cost concept for determining the minus within a retail-minus wholesale pricing methodology to promote efficient entry of new retail water and sewerage services providers.

Is a reasonably efficient competitor the appropriate cost benchmark concept?

The concept of comparing costs of an efficient competitor with prices has been developed as part of competition law jurisprudence as regulators and courts have sought to identify practices of firms seeking to exclude a rival by means other than having lower costs and prices – so called illegal exclusionary practices. To determine whether a firm has been engaged in business practices designed to exclude rivals, regulators and the courts typically compare prices against a relevant cost concept.

There are two competing cost concepts that have been considered, namely:

- the costs of an 'as efficient' competitor, where a firm will only be considered to be engaged in an abuse of dominance if it prices below its own costs, inclusive of any associated economies of scale or scope it has in the market, as relevant;
- the costs of a 'reasonable efficient' competitor, where a firm is considered to be abusing its dominance if it prices below the costs of a 'reasonably efficient' competitor, not taking into account any economies of scale or scope enjoyed by the dominant firm.

The courts in Europe have affirmed their preference for adopting an 'as efficient' test, as this cost concept:

- prevents foreclosure only of 'as efficient' operators thereby only promoting entry in circumstances where a firm is able to compete against the cost base of the dominant firm, promoting efficient entry to the market;
- ensures that less efficient operators are not protected by the competition law, if they are not otherwise able to compete based on the cost structure of the dominant incumbent; and
- allows an incumbent firm to objectively self-assess compliance, given their ability to assess their own costs and an inability to assess others costs.

The rationale for applying a 'reasonably efficient' competitor cost concept has been limited to circumstances where:

- economies of scale or scope in the market provide an 'as efficient' competitor an opportunity to foreclose on competitors that are unable to compete with a dominant incumbent until they obtain sufficient market size so it can access the sufficient economies of scale or scope – this is particularly the case where economies of scale and scope have arisen due to holding a legal monopoly, rather than competition on the merits;[1]

[1] Niels G, Jenkins H and Kavanagh J, Economics for Competition Lawyers, p 245.

- there is a desire by the competition authorities to promote competition in a market subject to economies of scale or scope;
- there is a reasonable expectation that competition over the longer term will effectively lead to lower prices so as to outweigh potential short term costs; and
- it is considered appropriate for the risks, and so costs, of competitive new entry should be borne by consumers as compared to investors in the new entrant.

Fundamentally, in choosing between these alternative cost concepts IPART needs to consider the trade-off between:

- promoting efficiency in the longer term, as the reasonably efficient competitor cost concept facilitates new entry, allows those entrants to gain sufficient market size so they can reduce their costs, and eventually leads to the development of effective competition with a dominant incumbent, placing downward pressure on costs and so prices to all customers in the long run; and
- imposing higher retail costs in the short term which raises prices above efficient levels.

Before IPART can consider this trade-off, there is a threshold question for IPART to identify whether those activities to be undertaken by wholesale customers are potentially competitive. This is because, the opportunity for competition to develop and so drive down costs is only applicable for those activities where competition is desirable and feasible. In the absence of an activity satisfying this threshold question, then in my opinion a reasonable efficient competitor cost concept should not be applied to that activity.

Circumstances where a reasonably efficient competitor cost concept might be justified

A reasonably efficient competitor cost concept might be appropriate where a number of particular circumstances hold, namely:

- the water and sewerage activities of the wholesale customer are potentially competitive (ie, they are not most efficiently served by one provider);
- there are sufficient economies of scale or scope in the activities of the wholesale customer that it creates an insurmountable barrier to new entry in these potentially competitive activities;
- effective competition in water and/or sewerage services would be facilitated by having wholesale costs based on a reasonably efficient competitor cost concept, leading to lower costs of these services to customers over the medium to long-run with associated benefits compared to the incentives created through current cost regulation of those activities;
- there exist new entrants seeking to capture sufficient market share from Sydney Water or Hunter Water to achieve any necessary economies of scale or scope to create active rivalry and so competitive incentives to drive lower retailing costs for the benefit of consumers;
- it would be appropriate to allocate the costs of short-term higher costs arising from new entry to consumers as compared to investors in the new entrant; and
- the administrative costs of adopting a hypothetical reasonably efficient competitor cost concept is outweighed by the benefits from the resultant competition.

In other words, there should be a reasonable expectation that the additional costs of short-term inefficient new entry will be outweighed by the future competitive pressure that will be brought to bear on Sydney Water and Hunter Water for the potentially competitive activities, leading to benefits for all customers.

The starting point for considering whether these circumstances hold is to determine whether the activities of a wholesale water or sewerage customer are potentially competitive.

The activities that may be provided by a wholesale water and/or sewerage customer that are currently provided by Sydney Water include some or all of the following:

- provision of meters and periodic water meter reading services;
- billing activities for both water and sewerage services;

- customer service activities to address customer bill or service enquiries; and
- provision and ongoing operation of the water and/or sewerage network, including pipes, tanks, pumps, etc.

Of these activities, metering, billing and customer service activities (ie, typical water and sewerage retail activities) are potentially competitive. The nature of these activities combined with evidence of competition in similar activities in other sectors (eg, electricity) lends weight to a conclusion that at least in principle, a reasonable efficient competitor cost concept might be applied to these activities.

However, the provision of water and/or sewerage network infrastructure including pipes, tanks and pumps, etc is unlikely to be a potentially competitive service (which is to be distinguished from competition for the construction of local water and/sewerage distribution infrastructure). This is because water and sewerage delivery services are likely to be provided most cost effectively by a single supplier, due to the economies of scale involved. In this circumstance competition is not expected to lead to least cost delivery of the services. It follows that applying a reasonably efficient cost concept to this activity risks customers facing higher costs, but without any offsetting benefit of competition in this activity developing over time to lower costs for all customers.

It follows that in my opinion a reasonably efficient cost concept should not be applied to any activities undertaken by a wholesale customer that are not potentially competitive.

To the extent they occur, my opinion is that these activities should be captured within IPART's definition of 'net facilitation costs', which are to be based on scheme specific costs for Sydney Water.

Are there economies of scale in potentially competitive water and sewerage retail and metering services to justify higher retail prices to customers in the short term?

A reasonable efficient cost concept provides a mechanism for facilitating new entry for potential competitors to Sydney Water even though their cost to supply end-use customers is higher than those of Sydney Water. In practice this means that Sydney Water's customers provide a cross subsidy to the new entrant, which may be justified if it facilitates the development of sufficient scale to allow the new entrant to compete with Sydney Water, driving down costs for all customers in the longer term.

However, for this outcome to be a justification for using a reasonably efficient competitor cost concept, there needs to be economies of scale in the provision of the potentially competitive services. To put it another way, the reasonable efficient competitor costs need to be higher than Sydney Water's actual costs for providing the same service.

In my opinion, there are conceptual reasons as to why a wholesale water or sewerage customer with a small number of customers would be able to access similar economies of scale as Sydney Water or Hunter Water in providing retail and metering services. For example:

- metering activities are becoming a competitive service in the electricity sector, and so it would most likely be feasible for providers of similar services in the electricity sector to make available competitive services to the water sector;
- customer billing systems are already available in an outsourced form in many sectors, as businesses seek to obtain the benefits of economies of scale in billing, debt collection and related services; and
- customer service activities are often provided by outsourced centres that provide similar services to a number of businesses.

Separately, the most cost efficient competitors for water and sewerage retailing and metering services are likely to be retailers in other sectors (such as electricity or telecommunications). For example, it has been

reported that Telstra is proposing to compete for the provision of energy services.[2] Alternatively, new entrant water or sewerage retailing businesses might be able to utilise systems from other activities that they are engaged in to access any necessary economies of scale or scope that might be involved.

That said, the *Water Industry Competition Act 2006* (WICA) currently prevents the issuing of a retail supplier licence unless the prospective licensee can satisfy a requirement that sufficient quantities of water supplied has been obtained other than from a public water utility. This effectively creates a barrier to the development of retail competition for water services.

In addition there are additional barriers to retail competition within the legislation, including restrictions on retail competition for small customers, such as restricting end-use customers within a WICA scheme from being serviced by more than one licensed retailer, amongst others.

I understand that there is an intention to remove the requirement that a retail supplier licence provide sufficient quantities of water other than from a public water utility to service retail customers. While this may increase the number of customers for which retail competition may become possible, under the proposed amendments there remains other barriers to the development of retail competition for small retail customers and there has been no indication from the government of its intent to remove these at some future point. It follows that, unless the government's policy intention to allow small retail customer competition was to change, facilitating new entry through cross-subsidisation is unlikely to be warranted.

It follows that the lack of economies of scale in the potentially competitive services combined with legislative barriers to the development in competition for retail services suggests that, on balance, applying a reasonably efficient cost concept is more likely to lead to higher costs to consumers without being offset by any likelihood of competition developing to drive costs lower to offset these initially higher costs. This outcome cannot be in the long-term interests of Sydney's water and sewerage customers.

In my opinion it would therefore not be appropriate for IPART to apply a reasonably efficient cost concept for determining the minus as part of a retail minus methodology for setting wholesale water and sewerage prices. Alternatively, IPART should use Sydney Water's actual costs for these services as the best benchmark for determining the minus in the wholesale pricing methodology.

[2] See, http://reneweconomy.com.au/2016/telstra-takes-on-energy-utilities-with-home-solar-and-storage-plan-40676.

1. Introduction

The Independent Pricing and Regulatory Tribunal of New South Wales (IPART) has recently released a discussion paper on its proposed approach to wholesale pricing for access to water and sewerage infrastructure provided by Sydney Water and Hunter Water.

The discussion paper provides IPART's preliminary view that wholesale prices should be set with reference to a 'retail-minus' pricing methodology.[3] This involves setting the price based on the existing retail price for water and sewerage services provided by Sydney Water and Hunter Water, less an amount set with reference to a competitor cost benchmark.

IPART has indicated that the amount that should be subtracted from retail prices should reflect the costs that would be incurred by a 'reasonably efficient competitor'. In addition, IPART indicates that a further adjustment should be made to reflect the amount of any 'net facilitation costs' – ie, the costs that would be incurred or avoided by the incumbent that are not otherwise captured in the cost amount subtracted from the retail price.

As IPART points out, defining these cost concepts will be crucial to determining the wholesale price for water and sewerage services.

Within this context, I have been asked by Sydney Water to provide my opinion as to the appropriateness of using a reasonably efficient competitor cost concept for determining the minus within a retail-minus wholesale pricing methodology, to promote efficient entry of new retail water and sewerage services providers.

The remainder of this report is structured as follows:

- Section 2 briefly summarises IPART's approach to considering the costs of a reasonable efficient competitor;
- Section 3 explains the development of an efficient competitor test as applied in competition law; and
- Section 4 answers whether a reasonably efficient competitor cost concept should be used to estimate the minus for water and sewerage wholesale pricing.

[3] IPART, (2016), *Prices for wholesale water and sewerage services: Sydney Water Corporation and Hunter Water Corporation,* Sydney, Discussion Paper, p26.

2. IPART's approach to a reasonably efficient competitor cost concept

The starting point for IPART's review of wholesale prices for water and sewerage services is its regulatory objective. IPART indicates that:[4]

> Our objective in determining wholesale prices is to create a level playing field, so that new entry to the water and sewerage services markets occurs where it is efficient.

In the subsequent footnote, IPART clarifies that:

> That is, that new entrants or alternative suppliers to Sydney Water and Hunter Water can compete where they are efficient.

These statements highlight the importance of considering a wholesale pricing arrangement that encourages efficient entry by alternative suppliers of water and sewerage services, in competition with those same services provided by Sydney Water and Hunter Water.

IPART's preliminary view is that wholesale prices should be set based on its determined retail prices, less an amount that reflects the costs of a reasonably efficient competitor plus the net facilitation costs.[5] This is considered to be a distinct cost concept from an avoided or avoidable cost, which are based on the costs incurred and avoided by, Sydney Water or Hunter Water as a consequence of providing a wholesale service.

In essence, IPART's approach decomposes the costs to be subtracted from retail prices into two parts, namely:

- the costs that are incurred to provide an alternative water and/or sewerage service, with the relevant benchmark being a hypothetical reasonably efficient competitor, rather than Sydney Water's or Hunter Water's actual costs; and
- the costs that are actually avoided or incurred by Sydney Water or Hunter Water to service the wholesale service seeker, ie, the net facilitation cost concept.

The key distinction between IPART's approach and the avoided/avoidable cost concept is whether the incumbent's actual costs are used as a benchmark for determining the efficient costs of providing an alternative water and/or sewerage service.

IPART's approach of splitting the costs to be subtracted into two components, raises the need to define the precise point where the hypothetical reasonably efficient competitor cost concept ends and the net facilitation cost concept begins. IPART appears to be contemplating applying the reasonably efficient competitor cost concept for any activities undertaken by a wholesale customer, from its point of connection to Sydney Water's network (ie, the wholesale connection point).

This means that the relevant activities to be assessed against a reasonably efficient competitor cost concept for a particular wholesale customer may include some or all of the following:

- provision of meters and periodic water meter reading services;
- billing activities for both water and sewerage services;
- customer service activities to address customer bill or service enquiries; and
- provision and ongoing operation of the water and/or sewerage network, including pipes, tanks, pumps, etc.

[4] Ibid, p18.

[5] Ibid, section 3.3, pp31-35.

IPART indicates that it considered whether incumbent costs or a hypothetical competitor's costs were the most appropriate cost benchmark, specifically whether the cost concept should be:

- the costs of an 'as efficient' competitor, where the costs are based on those that would be incurred by the incumbent provider, in this case Sydney Water and Hunter Water; or
- the costs of a 'reasonably efficient' competitor, where the costs are based on those that would be incurred by a reasonably efficient competitor, which may not have the same economies of scale or scope as an incumbent provider.

These concepts are drawn from competition law as regulators and courts have sought to develop tests to determine whether a firm has engaged in an abuse of its market dominance. This can take the form of predatory pricing or a margin squeeze (ie, pricing below costs so as to force a downstream competitor out of a market). Both of these are considered to be anti-competitive behaviour that is illegal in most jurisdictions. As such these concepts have been developed so as to address specific competition concerns in a market, and so need to be considered within the context that they have been developed.

IPART's reasoning for adopting a 'reasonably efficient' competitor cost concept is its opinion that such a concept will facilitate the development of competition and that:[6]

> Over time, competition should create an incentive for innovation that lowers costs and enhances service.

The key challenge is then how best to practically define a reasonably efficient competitor, against which a reasonably efficient competitor's costs can be estimated. IPART seeks stakeholder views on this question, but in so doing indicates that the water industry exhibits strong economies of scale and suggests that:[7]

> A reasonably efficient competitor would be assumed to have higher costs than the current incumbents.

This suggests that IPART is of the opinion that the reasonably efficient competitor's costs would most likely be higher than Sydney Water's actual costs, given the potential for Sydney Water to obtain economies of scale or scope in the provision of water and sewerage services. Ultimately this is a factual question that should be tested. However, I consider below whether conceptually this can be considered a reasonable statement given the nature of the wholesale customer's activities.

[6] Ibid, p 32.

[7] Ibid, p 34.

3. The efficient competitor test as applied in competition law

The efficient competitor test has been developed over time as part of the competition law jurisprudence as regulators and courts have sought to identify practices of firms seeking to exclude a rival by means other than having lower costs and prices – so called illegal exclusionary practices. Such practices are inconsistent with the promotion of efficiency in the production of goods and services within a market.

An efficient competitor test has been considered in the context of concerns about a firm's abuse of its dominance in a market, which refers to anti-competitive business practices undertaken by a dominant firm. This can take a number of forms including;

- predatory pricing, which involves pricing below costs for the purpose of damaging or excluding rival firms; and
- margin squeeze, which is a form of anti-competitive business practice whereby a firm with a dominant position in say, an upstream market within a supply chain, uses wholesale prices to place competitive pressure on downstream firms with which it also competes, so as to maintain or increase its downstream market share.

The challenge in both of these circumstances is to prove whether a firm is pricing in a manner that can be considered anti-competitive.

The starting point for considering whether a price can be considered anti-competitive is standard economic theory which states that in a competitive market:

- prices should not be set below the marginal cost in the short-run, because a firm can increase its profits if it chose to not supply the good or service at a price below marginal cost; and
- prices should be set so as to recover the long-run total costs, to ensure that a firm has a reasonable opportunity to recover the costs of its investment.

Posner indicates that:[8]

> There is no reason consistent with an interest in efficiency for selling a unit at a price lower than the cost that the seller incurs by the sale.

He goes on to say:[9]

> If there is intent to exclude, however, pricing below long-run marginal cost will have the purpose and likely effect of excluding an equally efficient competitor – equally efficient because if the "predator" is more efficient he can and will exclude his competitor by charging a price equal to or higher than his own long-run marginal costs.

Drawing upon these fundamental economic pricing concepts, the European Commission in 2009 provided guidance on the application of Article 82 of the Treaty establishing the European Community, which prohibits abuses of a dominant position.[10] Specifically the Commission indicated that it:[11]

> …will normally only intervene where the conduct concerned has already been or is capable of hampering competition from competitors which are considered to be as efficient as the dominant undertaking.

By considering only the as efficient competitor, the Commission is indicating that it will only consider an abuse of dominance if the dominant firm prices below its own costs, inclusive of any associated economies

[8] Posner, R., (1974), 'Exclusionary Practices and the Antitrust Laws', *University of Chicago Law Review,* p 506, at p 518.

[9] Ibid, p 519.

[10] European Commission, (2009), "Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings", 2009/C45/02, *Official Journal of the European Union,* C45/720, February.

[11] Ibid, at paragraph 23.

of scale or scope as relevant. The rationale for this approach is the promotion of efficiency implicit in the competition law, such that a firm could not be considered as acting anti-competitively if it is exploiting any cost advantages associated with having sufficient scale so as to have lowest costs compared to its rivals.

The focus in competition law on an 'as efficient' competitor reflects a desire to:

- prevent foreclosure of 'as efficient' operators thereby only promoting entry in circumstances where a firm is able to compete against the cost base of the dominant firm, promoting efficient entry to the market;
- ensure that less efficient operators were not protected by the competition law, if they were not otherwise able to compete based on the cost structure of the dominant incumbent; and
- allow an incumbent firm to objectively self-assess compliance, given their ability to assess their own costs and an inability to assess others costs.

More recently this approach has been affirmed by the decision in *Post Danmark*, whereby the EU Court of Justice indicated:[12]

> It is in no way the purpose of Article 82 EC to prevent an undertaking from acquiring, on its own merits, the dominant position on a market…. Nor does that provision seek to ensure that competitors less efficient than the undertaking with the dominant position should remain on the market.

The focus on an 'as efficient' test reflects both the practicality of assessing the relevant cost comparison, and a desire to ensure that the competition law not protect less efficient entrants.

While an 'as efficient' test is the dominant cost concept for competition law matters, it has been argued that a 'reasonably efficient competitor' cost concept might be more appropriate in particular circumstances.[13] These circumstances might arise if:

- economies of scale or scope in the market provide an 'as efficient' competitor an opportunity to foreclose on competitors that are unable to compete with a dominant incumbent until they obtain sufficient market size so it can access sufficient economies of scale or scope – this is particularly the case where economies of scale and scope have arisen due to holding a legal monopoly,[14] rather than competition on the merits;[15]
- there is a desire by the competition authorities to promote competition in a market subject to economies of scale or scope;
- there is a reasonable expectation that competition over the longer term will effectively lead to lower prices so as to outweigh potential short term costs; and
- it is considered appropriate for the risks, and so costs, of competitive new entry to be borne by consumers as compared to investors in the new entrant.

In contrast to an 'as efficient' test, a reasonably efficient competitor test acknowledges that there might be circumstances where competition in the short term should be facilitated to drive reductions in prices into the future, for the welfare of consumers.

Applying a reasonably efficient competitor test is therefore only relevant for those activities for which effective competition is desirable (ie, it is not a natural monopoly) and feasible. In other words, allowing a new entrant to enter with higher costs than the incumbent for those activities for which competition is not possible will only lead to higher costs to consumers without any prospect of competition driving future cost efficiencies.

This is because there is a trade-off in using the reasonably efficient competitor test because it:

- can promote efficiency in the longer term, as it facilitates new entry, allows those entrants to gain sufficient market size so they can reduce their costs, and eventually leads to the development of effective

[12] Case C-209/10, *Post Danmark A/S v Konkurrenceradet*, ECLI:EU:C:2012:172, at 21.

[13] Marty, F., (2013), "As-efficient competitor test in exclusionary prices strategies: Does Post-Danmark really pave the way towards a more economic approach?", *GREDEG Working Paper Series, p.* 27.

[14] Which is distinct from a natural monopoly.

[15] Niels G, Jenkins H and Kavanagh J, Economics for Competition Lawyers, p 245.

competition with a dominant incumbent, placing downward pressure on costs and so prices to all customers in the long run; and

- can result in higher retail costs in the short term which raises prices above efficient levels.

If short term higher costs are not offset by lower costs in the long run due to competition, then there is a risk that applying a reasonably efficient competitor test will lead to higher costs for consumers by promoting inefficient new entry.

Applying a reasonably efficient competitor cost concept also requires consideration as to whether consumers or investors should bear the costs of the competitive risks involved in entering the market. In other sectors where there might be economies of scale, a new entrant needs to assess whether it can quickly capture market share so as to compete with an incumbent. This might in practice lead to a new entrant making losses in the short term so as to obtain sufficient market share and scale to then compete with the incumbent firm over the medium to long-term.

4. Should wholesale water and sewerage prices exclude costs of a reasonably efficient competitor?

The earlier discussion highlights that a reasonably efficient competitor cost concept might be appropriate for setting wholesale water and sewerage prices where a number of particular circumstances hold, namely:

- the water and sewerage activities of the wholesale customer are potentially competitive (ie, they are not most efficiently served by one provider);
- there are sufficient economies of scale or scope in the activities of the wholesale customer that it creates an insurmountable barrier to new entry in these potentially competitive activities;
- effective competition in water and/or sewerage services would be facilitated by having wholesale costs based on a reasonably efficient competitor cost concept, leading to lower costs of these services to customers over the medium to long-run with associated benefits compared to the incentives created through current cost regulation of those activities;
- there exist new entrants seeking to capture sufficient market share from Sydney Water or Hunter Water to achieve any necessary economies of scale or scope to create active rivalry and so competitive incentives to drive lower retailing costs for the benefit of consumers;
- it would be appropriate to allocate the costs of short-term higher costs arising from new entry to consumers as compared to investors in the new entrant; and
- the administrative costs of adopting a hypothetical reasonably efficient competitor cost concept is outweighed by the benefits from the resultant competition.

In other words, there should be a reasonable expectation that the additional costs of short-term inefficient new entry will be outweighed by the future competitive pressure that will be brought to bear on Sydney Water and Hunter Water for the potentially competitive activities, leading to benefits for all customers.

In this section I first consider the threshold issue as to whether the activities to which IPART is proposing to apply the reasonably efficient competitor test are potentially competitive. This is followed by a discussion as to whether there are economies of scale or scope in those activities for which competition is possible, to warrant the application of a reasonably efficient competitor cost concept.

4.1 Are the activities likely to be undertaken by wholesale customers potentially competitive?

The activities of a wholesale water and/or sewerage customer that are otherwise provided by Sydney Water include some or all of the following:

- provision of meters and periodic water meter reading services;
- billing activities for both water and sewerage services;
- customer service activities to address customer bill or service enquiries; and
- provision and ongoing operation of the water and/or sewerage network, including pipes, tanks, pumps, etc.

In addition, there are a number of customer service quality obligations (as applicable to Sydney Water and Hunter Water), and in some instances the retailer may provide infrastructure needed to supply the water or sewerage service from the point of connection with the delivery infrastructure, and the typical point of connection with a customer.

Of these activities, metering, billing and customer service activities (ie, typical water and sewerage retail activities) are potentially competitive. This is because, while there may be some economies of scale in

providing these services, conceptually a small retailer is able to access any economies of scale through the use of outsourced providers of these services or by leveraging the capabilities (ie, economies of scope) from providing similar services in other sectors. By way of example:

- metering activities are becoming a competitive service in the electricity sector, and so it would most likely be feasible for providers of similar services in the electricity sector to make available competitive services to the water sector;
- customer billing systems are already available in an outsourced form in many sectors, as businesses seek to obtain the benefits of economies of scale in billing, debt collection and related services; and
- customer service activities are often provided by outsourced centres that provide similar services to a number of businesses.

These activities therefore satisfy the first circumstance where a reasonably efficient competitor cost concept might be applied.

That said, the *Water Industry Competition Act 2006* currently requires the Minister to not grant a retail supplier licence unless satisfied that:

> 10(4)(d)… if such a licence is granted, sufficient quantities of the water supplied by the licensee will have been obtained otherwise than from a public water utility.

This effectively creates a barrier to new entrants entering the market to compete in retailing water services. It raises the prospect that, unless the WICA was to be amended, it is unlikely that retail competition would develop sufficiently so as to warrant applying a reasonably efficient competitor cost concept.

In addition to retailing and metering activities, there may be instances where a wholesale water or sewerage customer provides water and/or sewerage infrastructure from the point of connection with Sydney Water's network to end-use customers, eg, for a new housing development. This might also involve the provision of tanks, pumps or other infrastructure that might otherwise (absent the wholesale customer) have been funded by Sydney Water under a growth plan.

However, under IPART's proposed methodology for wholesale pricing, all activities from the point of wholesale connection with Sydney Water's network would be subjected to a reasonably efficient cost concept assessment.

Relevantly water and/or sewerage infrastructure is not a potentially competitive service because it exhibits sufficient economies of scale in construction, operation and maintenance that it is most efficiently provided by a single firm. In other words, it would not be appropriate for two competitive firms to replicate local network infrastructure so as to compete to supply this service to end-use customers. This means that active rivalry between firms for these activities will not result in the least cost supply of services to customers.

Where competition can lead to lower costs for the provision of local water and/or sewerage infrastructure is through active rivalry between a wholesale water customer and Sydney Water, for the construction of this infrastructure. This 'competition for the market' is achieved by:

- the wholesale water customer (most likely a developer) choosing to construct, operate and maintain the local network itself and recouping the costs from end-use customers directly as it competes in the market for new developments; or
- a developer choosing to allow Sydney Water to construct, operate and maintain the local network (or fund the developer to undertake the construction on Sydney Water's behalf) as part of its development plan and so accepting any associated additional wholesale charges that result from Sydney Water needing to recover those additional costs.

Importantly, the current approach whereby Sydney Water recovers the costs of infrastructure (sized above minimum reticulation) needed to support new developments from all customers means that it is unlikely there would be many instances where a developer would choose to construct and recover these costs directly from end-use customers.

For appropriate competitive incentives for construction, operation and maintenance of a localised network to be retained, it is important that a wholesale service customer compares its cost of these activities against Sydney Water's actual costs for the same activities. Where its costs are lower, then the developer should construct the infrastructure and vice versa.

However, should IPART apply a reasonably efficient cost concept where the reasonable efficient costs are higher than Sydney Water's costs (due to economies of scale) this would create incentives for a wholesale service customer to construct, operate and maintain the local network even though it would have been more efficient for this to be undertaken by Sydney Water. Because these activities are not potentially competitive, end-use customers would have no prospect of receiving lower costs in the future offsetting any higher costs in the near term.

This means that it would be inappropriate for a reasonably efficient cost concept to be applied to network infrastructure provided by a wholesale service customer. I would therefore recommend that IPART limit its potential application of a reasonable efficient cost concept to those activities for which potential competition will lower costs for all customers over time, ie, for water and sewerage retail and metering services only.

4.2 Are there economies of scale in the potentially competitive activities to warrant the application of a reasonable efficient competitor concept to these activities?

For the potentially competitive activities, it is important for IPART to consider whether there are sufficient economies of scale or scope to warrant allowing wholesale service customers to enter with higher costs for the provision of these services, so as to facilitate the development of competition to drive down retailing costs for all customers in the future.

While this is ultimately a factual question, conceptually there are likely to be opportunities for a new entrant to use more innovative business practices so as to access economies of scale associated with providing these services. This can arise from active use of outsourcing arrangements, or leveraging similar activities in similar services provided by the new entrant water or sewerage retailer.

For example, the types of competitors for water and sewerage retailing services are likely to be retailers in other sectors (such as electricity or telecommunications). For example, it has been reported that Telstra is proposing to compete for the provision of energy services and it could, at least in principle, compete for retail water or sewerage services.[16]

There appears to be circumstantial evidence to support a conclusion that a relatively small water or sewerage retailer (eg, say serving up to 50) customers could obtain access to a similar cost structure as an incumbent water and sewerage retailer. This would mean that a reasonably efficient competitor for water and sewerage retailing services could be appropriately defined as a retailer with a customer base as low as say, up to 50 customers.

That said, and as outlined earlier, the WICA has not been designed to facilitate full retail water and sewerage service contestability. This is limited by a number of provisions, including:

- the WICA currently prohibits the granting of a retail supplier licence unless the licensee can satisfy the Minister that it has access to an alternative source of water to that provided by Sydney Water.[17] This creates a barrier to entry by firms like Telstra competing in a water retail service market.
- the WICA (as amended), places restrictions on retail competition for small retail customers, requiring that all customers within a WICA scheme are serviced by the same licensed retailer (ie, a small retail customer cannot choose an alternate retailer),[18] and that a licensed retailer can only provide retail services to a customer serviced by a WICA scheme;[19]
- theoretically, small retail customers already receiving a service/s from a WICA licensed retailer for services provided by a category A scheme (eg wastewater and recycled water) could also request to receive retail services from a WICA licensee for a service being delivered by public water utility infrastructure (eg drinking water). This would be limited to a very small sub-section of customers who are serviced by WICA licensees, compared to the public water utility's entire area of operations.

[16] See, http://reneweconomy.com.au/2016/telstra-takes-on-energy-utilities-with-home-solar-and-storage-plan-40676.

[17] *Water Industry Competition Act 2006,* s.10(4)(d).

[18] *Water Industry Competition Act 2006,* s.17(1)(b)(ii).

[19] *Water Industry Competition Act 2006,* s.20F(1).

I understand that there is an intention to remove the barrier arising from a license requirement that a retailer provide sufficient quantities of water to service its customers, via proposed changes to the WICA. This may, albeit marginally, expand the customers that could be serviced by a competitive retailer. In addition, I understand there is a proposed change to remove the requirement for a retail licence for industrial and larger commercial customers, which may have a larger impact on retail competition.

However, it is unclear whether other restrictions on small retail customer competition contained within the WICA will be removed as part of any future review. Until any further changes become effective, it is not clear that incurring higher costs to facilitate a new entrant retailer gaining any economies of scale or scope (ie, the only reasonable basis for applying a reasonably efficient cost concept) is warranted.

It follows that in my opinion there is little basis for IPART to apply a reasonably efficient cost concept to the potentially competitive water or sewerage retail or metering services. This is because:

- these services are not likely to exhibit significant economies of scale that cannot otherwise be accessed by a new entrant, which means that a new entrant should be able to compete directly with Sydney Water's costs for providing these services; and
- legislative barriers to the development of retail competition means that it is unlikely that effective competition will develop for these services.

This suggests that, on balance, applying a reasonably efficient cost concept is more likely to lead to higher costs to consumers without being offset by any likelihood of competition developing to drive costs lower to offset these initially higher costs. This outcome cannot be in the long-term interests of Sydney's water and sewerage customers.

4.3 Application of the reasonably efficient competitor cost concept

An alternative way forward for IPART would be to define Sydney Water's and Hunter Water's costs as the benchmark for determining the 'reasonably efficient' costs of providing the potentially competitive services.

This is consistent with a view that the absence of significant economies of scale in providing the potentially efficient retail and metering services means that the costs of Sydney Water or Hunter Water to provide these services might therefore be close to those that should be achievable by a new entrant. This effectively means that the choice between adopting a 'reasonably efficient' competitor cost concept or an 'as competitive' cost concept might become immaterial in practice.

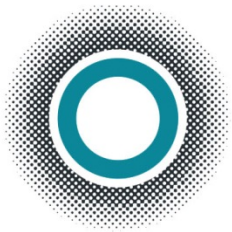
In considering the cost structure for a reasonably efficient retail water and sewerage services, I would suggest that IPART take account of:

- the nature of the activities involved in the potentially competitive market that IPART is seeking to promote;
- the opportunity for new entrants to obtain any needed economies of scale via outsourcing or through being engaged in similar activities in other sectors (eg, electricity or telecommunications) providers; and
- evidence of relatively small new entrant retailers in other infrastructure sectors.

In estimating the costs of a reasonably efficient water and/or sewerage competitor retailer it would be appropriate to build-up the reasonably efficient cost base, which could be based in part on information from Sydney Water or Hunter Water, or other similar retailers. An 'average' reasonable cost base could be determined by summing:

- average billing cost per customer, estimated by dividing the total number of customers by total operating costs for billing;
- average customer enquiry costs, based on total number of customer calls relating to retailing services as a proportion of total number of customer enquiries, multiplied by the total operating costs for customer call centres and divided by the total number of customers;
- average meter reading costs multiplied by total number of annual meter reads per customer; and
- an allocation of corporate overheads associated with IT and other equipment needed to provide retail water and/or sewerage services divided by the total number of customers.

I expect that this would be an appropriate basis for estimating the 'reasonably efficient cost' to be subtracted from the applicable fixed fee as set by IPART for the customer.



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