

# Review of third-party access pricing to SA Water's water infrastructure services

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Research report for the Essential Services Commission of South Australia — Final report

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# Glossary

<b>Abbreviation</b>	<b>Stands for</b>
Access regime	The third-party access regime that applies to the South Australian water industry
ACCC	Australian Competition and Consumer Commission
The Act	<i>Water Industry Act 2012</i>
Albion case	<i>Albion Water Ltd v. Water Services Regulation Authority and Dŵr Cymru</i> . Competition Appeal Tribunal (UK)
CCA	<i>Competition and Consumer Act 2010 (Cwlth)</i>
Commission	the Essential Services Commission of South Australia
DEW	Department for Environment and Water
ECPR	Efficient components pricing rule
ERA WA	Economic Regulatory Authority of Western Australia
ESC Victoria	Essential Service Commission of Victoria
IBT	Inclining block tariff
Information brochure	Third Party Access Information Brochure, which contains terms and conditions of access, procedures to determine access, information about relevant prices and costs (general in nature), and a standard access agreement
IPART	Independent Pricing and Regulatory Tribunal (NSW)
GL	Gigalitre
kL	Kilolitre
Minister	Minister for the Environment and Water
NCC	National Competition Council
Ofwat	Water Services Regulation Authority of England and Wales
QCA	Queensland Competition Authority
Services Sydney	Services Sydney Pty Limited
Sydney Water	Sydney Water Corporation
Water for Good	SA Government (2010).
WIC Act	<i>The Water Industry Competition Act 2006 (New South Wales)</i>
UK CAT	United Kingdom Competition Appeal Tribunal

# Summary

## Regulatory context

In 2016 a third-party access regime for water and sewerage infrastructure was put in place in South Australia. The declared infrastructure under the regime includes eight water pipelines operated by SA Water. The Essential Services Commission of South Australia (Commission) will be conducting a review of the regime in 2023-2024 and commissioned this work to complement its upcoming review in response to stakeholder concerns about access prices.

A Ministerial Direction was issued in June 2016 to require SA Water to use a retail-minus approach to setting access prices (unless the Minister provides approval to use an alternative). The approach involves setting an access price based on SA Water's retail prices plus any facilitation costs minus an amount that SA Water could avoid (over the long term) in providing access. This contrasts to a cost-based approach whereby prices are set to reflect its costs of supplying access.

The retail prices are set on a state-wide basis by SA Water, in conjunction with the South Australian Government, within the constraint of a revenue cap determined by the Commission.

## Performance of the current regime

Third party access to the pipelines may enable access seekers to convey water through SA Water's network to compete with SA Water in providing essential retail (reticulated) water services. Access may also be sought to convey water for other 'non-retail' uses – uses, unrelated to retail water services, such as irrigation or industrial production.

To date there are no third-party access agreements for retail services in competition with SA Water. It is unclear as to the extent that the access regime has been a barrier.

SA Water has several existing negotiated access agreements for non-retail use. The access prices for these appear to be cost-based and significantly below what would be applied under a retail-minus approach. However, the key agreements were based on contracts established prior to the introduction of the access regime and stakeholders have raised concerns that access pricing has been a barrier to greater pipeline use outside of the established valleys. Based on a review of materials published by SA Water (the information brochure and SA Water's website) there is a lack clarity as to the circumstances and extent to which SA Water may apply a retail-minus approach as opposed to a cost-based approach when negotiating access outside of the statutory regime.

## Arguments for and against a retail-minus approach

There appears to be common acceptance that, where there is geographically averaged pricing and price regulation, a retail-minus approach to access pricing is appropriate to prevent inefficient competition from entrants who 'cherry pick' the lowest cost locations. In the case of SA Water, such cherry picking would lead to existing customers bearing the higher cost parts of the network. While, potentially, a cost-based approach can be adjusted to address this risk, the retail-minus approach is recognised as significantly less complex. This rationale is reflected in actions taken by regulators and recommendations made in developing pricing principles and frameworks.

However, the use of the retail-minus approach has been controversial where retail prices are not regulated, in which case the retail-minus approach can entrench monopoly profits and inefficient pricing. While the revenue cap set by the Commission addresses the issue of monopoly profits, there is no regulation of price structure. The Commission has previously (in 2014-15) identified issues (inefficiencies) with SA Water's retail pricing structure for water, most notably that the usage prices are well-above the efficient, cost-reflective, price.

## Issues and options

Regardless of the pricing-structure, there are additional issues and options relating to access pricing and the incentives for entrants. These are usefully examined separately for retail and non-retail uses.

SA Water has no incentive to encourage competition for retail services it provides. A common concern is that access prices protect the incumbent from competition (due to issues with their implementation and/or due to the incumbent's established advantages) and/or that lower access prices are needed to help capture the long-term (dynamic efficiency) benefits of competition.

To encourage retail competition, financial incentives may be used. An approach in NSW is to reduce the access price to reflect that new entrants are likely to be less efficient in the short-term, but over the long-term will drive efficiency gains that will outweigh the short-term risks.

Retail competition may also be encouraged by reducing information barriers for potential entrants. Potential entrants may find it a barrier that there is limited information in the public domain on what the access prices would be and the details of how these would be determined. In contrast, in NSW, the regulator (IPART) has set system-wide wholesale prices (using the retail-minus method); similarly, in England, the regulator Ofwat is setting access prices in line with a bottom-up wholesale charging approach.

For non-retail uses, SA Water has greater incentive to negotiate, and has previously negotiated, cost-based access prices. Nevertheless, its incentives to encourage third-party access may be less than optimal. Options to encourage greater use of the pipelines for non-retail uses include:

- increasing the financial or non-financial incentives for SA Water to encourage greater use (the latter could, for example, involve requiring SA Water to periodically report publicly on how it is meeting the objective of promoting efficient operation and use of the declared pipelines)
- clarifying in the public domain that a cost-based approach should be applied for determining access prices for non-retail uses.

There are benefits and costs of the different options. The potential sources of benefit relate to:

1. greater usage of the pipelines for non-retail uses. These benefits may be significant in part because the benefits extend beyond that of the access-seeker.
2. increased competition in provision of retail water services. There is limited research on the size of these benefits. They may be small given the highly commoditised nature of retail water services and that SA Water can leverage competitive markets to develop the reticulated network. Competition could create pressure to reform retail prices. However, it is questionable whether access pricing reforms would be an effective or appropriate means of driving change.

3. incentives for efficient investment in and operations off the pipeline infrastructure. While issues may exist, no major concerns have been raised to date.

The key costs and risks associated with the options largely relate to the administrative costs of change and ongoing implementation, and the risk of inefficient competition for retail services.

A summary of the options against the costs and benefits is provided in the table below.

Table S1: Summary of costs and benefits of alternative options

<b>Options</b>	<b>Costs / risks / issues</b>	<b>Potential benefits</b>
Use cost-based methodology with adjustments to reflect state-wide pricing	<ul style="list-style-type: none"> <li>Significantly more complex</li> <li>Need not result in changes in pricing</li> <li>Disruption from pricing reform</li> </ul>	<ul style="list-style-type: none"> <li>Would enforce greater transparency over current pricing distortions and potentially lead to access and retail pricing reform</li> </ul>
<b>For retail uses</b>		
Increase the minus in the retail-minus	<ul style="list-style-type: none"> <li>Risk of encouraging inefficient entry</li> </ul>	<ul style="list-style-type: none"> <li>Potential for long-term dynamic efficiency benefits from retail competition</li> </ul>
Reduce information barriers for third party access in competition for retail use		
<ul style="list-style-type: none"> <li>Clarify facilitation costs</li> </ul>	<ul style="list-style-type: none"> <li>No significant issues</li> </ul>	<ul style="list-style-type: none"> <li>Small benefit</li> </ul>
<ul style="list-style-type: none"> <li>Provide additional detail on access pricing method</li> <li>Pre-determined rates</li> </ul>	<ul style="list-style-type: none"> <li>Administrative cost with risk of no benefit</li> <li>Risk of error &amp; inefficient entry</li> </ul>	<ul style="list-style-type: none"> <li>Increase likelihood of retail competition and subsequent benefits</li> </ul>
<b>For non-retail uses</b>		
Increase SA Water incentives to encourage third party access for non-retail use		
<ul style="list-style-type: none"> <li>Restructure revenue share</li> </ul>	<ul style="list-style-type: none"> <li>Minor administrative cost</li> </ul>	<ul style="list-style-type: none"> <li>Some (perhaps minor) increased incentive to encourage non-retail use</li> </ul>
<ul style="list-style-type: none"> <li>Use soft 'non-financial incentives'</li> </ul>	<ul style="list-style-type: none"> <li>Administrative costs of establishing and monitoring</li> </ul>	<ul style="list-style-type: none"> <li>Increased incentive to encourage non-retail use</li> </ul>
Clarify/confirm use of cost-based approach for non-retail uses	<ul style="list-style-type: none"> <li>Minor administrative costs</li> <li>Risk to SA Water's unregulated revenue (directly offset as benefit to access seekers)</li> <li>Risk of costs associated with application of scheme</li> </ul>	<ul style="list-style-type: none"> <li>Some increase in incentive for access and subsequent benefits from use</li> </ul>



# 1 Introduction

The Essential Services Commission of South Australia (the Commission) has responsibility for reviewing, on a periodic five-year basis, whether or not the third-party access regime applying to designated water and sewerage infrastructure services in South Australia should continue. The Commission's final report setting out the review's conclusions and recommendations is to be provided to the Minister for Climate, Environment and Water (Minister) (with the decision to continue or terminate operation of the access regime resting with the Minister).

In advance of the next periodic review (due to be finalised by the end of June 2024), the Commission engaged Sapere to advise on the pricing approaches that could, in both theory and practice, be adopted for third-party access for water infrastructure services.

This project aims to review current access pricing mechanisms and to make suggestions and recommendations for the Commission's consideration as it undertakes the next periodic review.

The rest of this report is structured as follows. The structure aligns to the project requirements described in Box 1.

- Section 2 provides a background, including the regulatory context, the history of the regime and its current use.
- Section 3 reviews the arguments for and against the use of a state-wide retail minus price methodology, which is part of the Ministerial Direction in relation to access prices.
- Section 4 outlines possible alternative access pricing options, including explaining their advantages and disadvantages.
- Section 5 concludes.

## Box 1: Project scope

1. Summarise the regulatory context (including references to the objectives of the Water Industry Act 2012, the access regime as set out in Part 9A of the Water Industry Act 2012, the Proclamation of declared water infrastructure services, and the Ministerial Direction in relation to access prices).
2. Outline the key economic arguments for and against the use of a state-wide retail minus price methodology for third party access for water infrastructure, and in discussing these issues, draw on evidence from economic theory, empirical studies and regulatory practice (including from the water and utilities sectors locally and internationally including from Australia and the United Kingdom).
3. Outline possible alternative access pricing options, including explaining their advantages and disadvantages, and in discussing the alternatives and any issues associated with them, draw on economic theory, empirical evidence and evidence from regulatory practice (including from other industries and jurisdictions, both local and international).
4. Finish off by summarising the key trade-offs, issues and factors that should be considered when weighing up the benefits and costs of access pricing methodologies for an access regime for water infrastructure services in South Australia.

## 2 Regulatory context

### 2.1 The access regime

#### 2.1.1 Overview of the regime

The current third-party access regime that applies to the South Australian water industry commenced on 1 July 2016 and was established in the *Water Industry Act 2012* (the Act) under Part 9A.<sup>1</sup> The regime establishes a negotiate-arbitrate framework<sup>2</sup> that provides a fallback regulatory option to improve access seekers' position in commercial negotiations with the regulated operator for access to declared infrastructure services.<sup>3</sup>

The infrastructure services that have been declared (to date) are all owned by the South Australian Water Corporation (SA Water). No other water industry entities are covered under the regime at this stage. SA Water is a state-owned corporation<sup>4</sup> that provides water and sewerage retail services to more than 1.7 million residential and non-residential customers in South Australia.<sup>5</sup> The water and sewerage retail services provided by SA Water are regulated by the Commission by way of a revenue cap. The prices of these services are set on a state-wide basis by SA Water in conjunction with the SA Government within the constraint of the regulated revenue cap.

The only infrastructure to which the regime fully applies are eight pipelines that convey treated and untreated water between various locations in the state including the River Murray and Greater Adelaide. Third party access to pipeline infrastructure services may enable access seekers to convey water through SA Water's network, thereby allowing for potential competition to SA Water in the provision of its regulated water retail services, or to convey water for end-purposes unrelated to water retail services (i.e. non-retail uses such as irrigation and industrial production). A summary of the assets declared under the access regime is provided in Box 2 and additional information is provided in Appendix A.

The access regime sets functions and requirements for the Commission (as the regulator) and SA Water (as a regulated operator). The Commission has the function of monitoring and enforcing

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<sup>1</sup> For a copy of the legislation, please see

<https://www.legislation.sa.gov.au/lz/path=%2FC%2FA%2FWater%20Industry%20Act%202012>.

<sup>2</sup> The key steps and aspects of conciliation and arbitration are listed in Appendix A.

<sup>3</sup> Several existing publications outline the regulatory framework that applies to the access regime for the water industry in South Australia. See Commission (2019), '2019 Review of Water Third Party Access Regime', May 2019, pp. 1-14, and NCC (2017), South Australian Water Access Regime - Final recommendation, March 2017, pp. 4-52. The Commission's website also includes details about the access regime, including regarding the arbitration process, see <https://www.escosa.sa.gov.au/ArticleDocuments/604/20160324-Water-ThirdPartyAccessAmendmentAct2015-ArbitrationFlowChart.pdf.aspx?Embed=Y>.

<sup>4</sup> SA Water was established under the *South Australian Water Corporation Act 1994*.

<sup>5</sup> SA Water does not serve the entire SA population. There are also around 70 councils and private entities known as small-scale water networks that are licensed under the Act to provide water and sewerage services to 50,000 or fewer connections. Collectively they have approximately 99,200 customers. See <https://www.escosa.sa.gov.au/industry/water/licensee-information/small-scale-water-networks>.

compliance with the Act and is required to prepare and deliver reports to the Minister (annually and on a five-yearly basis). It must seek to resolve disputes by conciliation and may refer a dispute to arbitration. SA Water is required to negotiate in good faith with access seekers, provide certain information and documents to access seekers and the regulator, keep separate accounts and records, and comply with requirements of the arbitrator. SA Water's requirements include providing – in response to a written application – a *Third Party Access Information Brochure* (hereafter the information brochure) that contains terms and conditions of access, procedures to determine access, information about relevant prices and costs (general in nature), and a standard access agreement.<sup>6</sup>

To date, no access proposals have been referred to the Commission and thus no formal disputes and arbitrations have been made under the access regime.

Box 2: Assets declared under the access regime

The current access regime applies to declared water and sewerage infrastructure services in South Australia. A number of SA Water's assets<sup>7</sup> were declared in June 2016.<sup>8</sup>

Full coverage of the access regime applies to the following water pipelines operated by SA Water:

- Murray Bridge to Onkaparinga
- Mannum to Adelaide
- Swan Reach to Paskerville
- Myponga to Adelaide
- Morgan to Whyalla
- Tailem Bend to Keith
- Eyre Peninsula, and
- Glenelg to Adelaide.

Partial coverage of the access regime, which notably excludes the access pricing arrangements, applies to the remaining assets, being:

- the water distribution networks to which SA Water's licence relates
- the bulk sewage and local sewage networks to which SA Water's licence relates
- infrastructure and infrastructure services which are needed to transport water or sewage in the water/sewerage infrastructure referred to above (such as treatment plants, pumping stations, storage tanks and surge protection units and valves).

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<sup>6</sup> See section 86F of the Act.

<sup>7</sup> South Australian irrigation trusts are currently exempt from the Act. Irrigation trusts are classified as irrigation infrastructure operators under the *Water Act 2007 (Cth)*, and all charges levied for the delivery of River Murray water to members outside of urban areas are potentially subject to the Commonwealth water charge rules. Section 86B of the amended Act excludes irrigation trusts from the state-based access regime.

<sup>8</sup> SA Government (2016a).

## 2.1.2 History of the access regime

The origins of the access regime are found in the South Australian Government's 2010 water supply plan *Water for Good*. The plan noted that 'there are significant regulatory and other hurdles for competitive entry into water or wastewater service provision' and argued that:<sup>9</sup>

Allowing new entrants access to existing monopoly infrastructure is a necessary step to encourage the entry of new, innovative and diverse supply sources, including non-rain-dependent sources. Access may help to achieve economically viable investment and encourage efficient use of urban and regional water and wastewater infrastructure.

The plan identified potential applications whereby a party could use the regime to:<sup>10</sup>

- secure its own water supply and access SA Water's network to deliver the water to customers
- source wastewater and use SA Water's wastewater network to transport this to a treatment plant for sale to recycled water customers.

The plan recommended government ownership of SA Water be maintained but that a State-based third-party access regime be developed that allows water and wastewater suppliers to access the water and wastewater infrastructure.

The process to establish the access regime was initiated with the release of a 'Report on Access to Water and Sewerage Infrastructure' in February 2013.<sup>11</sup> Following feedback on the report, a consultation draft *Water Industry (Third Party Access) Amendment Bill* was tabled in September 2013 with an accompanying explanatory memorandum and released for public comment. The bill was introduced in February 2015 and passed in October 2015, inserting the new Part 9A into the Act and establishing that the access regime was to commence 1 July 2016.<sup>12</sup>

## 2.1.3 Ministerial Direction for access prices<sup>13</sup>

In June 2016, the Minister for Water and the River Murray, directed SA Water to:<sup>14</sup>

[...] determine prices for access to designated services on the basis of a charge per customer calculated using a retail-minus methodology unless otherwise approved by me.

The direction clarifies that:

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<sup>9</sup> SA Government (2010, pp. 148-149).

<sup>10</sup> The plan noted that greatest opportunities for access may be in supplying non-residential customers.

<sup>11</sup> The report and other submissions in response can be found at <https://www.treasury.sa.gov.au/economy-taxes-and-rebates/economic-regulation/water-and-sewerage-infrastructure>.

<sup>12</sup> Hon IK Hunter, Second Reading speech for the Water Industry (Third Party Access) Amendment Bill, 11 February 2015, found at <https://hansardsearch.parliament.sa.gov.au/daily/uh/2015-02-11/53>.

<sup>13</sup> Note that the purpose of this research paper is not to provide an assessment of SA Water's compliance against the Ministerial Direction. Furthermore, this research paper does not, and is not intended to, provide any legal opinion in regard to the Ministerial Direction.

<sup>14</sup> SA Government (2016b, pp. 2655-2656).

- *Retail-minus methodology* means SA Water's retail fees and charges per customer calculated in accordance with the statewide price for retail services minus SA Water's avoidable costs for the designated services, plus any facilitation costs to provide the designated services.
- *Avoidable costs* means the costs that SA Water would otherwise incur in the provision of retail services to the customer(s) that SA Water could avoid in the long term if it completely ceased provision of the retail service to the customer(s).
- *Customer(s)* means the customer(s) to whom the proponent proposes to provide retail services, or alternatively is providing retail services, whether directly or indirectly.
- Designated services means all infrastructure services using SA Water's infrastructure except SA Water's infrastructure that is used solely for the transportation of recycled water.
- State wide price means the prices published from time to time in the South Australian Government Gazette that apply the Statewide Pricing Facility pursuant to a Section 6 direction of the Public Corporations Act.

Of note, under section 86P(1)(j) of the Act, an arbitrator must take into account any direction given to SA Water by its Minister under section 6 of the Public Corporations Act that is relevant to the arbitration.

## 2.1.4 Demand for access and commercial access pricing

An effective regulatory backstop can incentivise voluntary commercial negotiations between an access seeker and SA Water.

Currently, SA Water has over 160 voluntary individual access agreements with third parties to transport water using declared pipelines. Many are part of, or related to, long-standing agreements. They include agreements with Barossa Infrastructure Limited (BIL) and the Clare Valley Region Water Supply Scheme. From 2016-17 through to 2021-22, there has been growth in the number of access agreements (18 per cent) and contracted volume transported for third parties.<sup>15</sup>

All the voluntary agreements have been based on commercial negotiation and have not involved the access regime's conciliation or arbitration process. Most access agreements relate to irrigation use in the Barossa, Clare and Eden valleys, with some access been obtained for industrial use. All agreements relate to transporting water from the River Murray.

SA Water publishes<sup>16</sup> schedules of charges for water transportation services for the Barossa Valley, Eden Valley and Clare Valley regions. There are separate schedules for:

- Barossa Valley, Eden Valley and Clare Valley Off Peak Water Transportation<sup>17</sup>
- Clare Valley Peak Water Transportation
- BIL for the water transportation of up to 11 GL.

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<sup>15</sup> Source: Data provided by SA Water to the Commission.

<sup>16</sup> See SA Water's website at <https://www.sawater.com.au/my-business/services/third-party-access-to-infrastructure>. SA Water's website provides much of the background information reported in section 2.1.4.

<sup>17</sup> Off Peak refers to three off peak water supply periods (between April and November).

The key fees charged include:

- a reservation fee – a fee to reserve transportation capacity in the network mains and payable on the agreed volume
- a consumption fee payable for water transported.

Of note, SA Water describe the charges as being *cost based*.<sup>18</sup> The charges vary by valley. BIL pays an annual fixed charge and a variable charge of \$0.3089 per kL for up to 11 GL per annum. SA Water notes the BIL charges are specific to BIL and are not generally available to other customers as they reflect the capital contribution made by BIL.<sup>19</sup>

SA Water also charges for costs associated with requests for further information. For water, this cost is \$5,647.<sup>20</sup>

SA Water has indicated there have been some 'negotiations for voluntary agreements that took place but were never finalised/agreed.'<sup>21</sup> Nevertheless, based on information SA Water has provided to the Commission, there appears to be excess capacity in the pipelines.

According to SA Water's regulatory accounts (which are provided annually by SA Water to the Commission) SA Water has collected an annual average of about \$11 million over the past five years (up to 2021-2022) and has earned an average annual net operating margin over this time of approximately 40 per cent. The average revenue across all access agreements in 2021-22 was \$0.74 per kL of water transported.

## 2.2 Limitations in current access pricing

There are two key limitations in access pricing that are worth noting relating to:

- current retail pricing and its impact, or potential impact, on access prices
- a lack of clarity about when the Ministerial Direction applies.

### 2.2.1 Current retail pricing and its impact on access prices

There are a few important features of the current retail pricing from which the Ministerial Direction applies.

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<sup>18</sup> SA Water states on its website that 'SA Water determines the transportation charges based on operational costs to deliver the water. The charges are adjusted each year by increases in the Consumer Price Index (CPI) ABS September Ending Table 6401.0 Series ID A2325822K.'

<sup>19</sup> See SA Water's website at <https://www.sawater.com.au/my-business/services/third-party-access-to-infrastructure>.

<sup>20</sup> See SA Water's website at <https://www.sawater.com.au/my-business/services/third-party-access-to-infrastructure>.

<sup>21</sup> Since January 2019, three agreements were not finalised, one due to the customer having alternative supply options for water. This information was provided to the Commission by SA Water.

First, SA Water's retail prices are set on a state-wide basis. The state-wide nature of the pricing means that access prices set using the retail-minus methodology may differ to their cost of providing the service.<sup>22</sup>

Second, there is no regulation to ensure the efficiency of the retail price structure. Retail prices are determined by SA Water in conjunction with the SA Government (within the constraint of the revenue cap determined by the Commission). As part of its 2013/14 inquiry into *SA water's drinking water and sewerage prices*,<sup>23</sup> the Commission estimated significant benefits<sup>24</sup> to improving the efficiency of pricing by making it more cost reflective. Most significant, is that the retail water usage charges (at least for most customers) are significantly greater than the efficient price of providing water.<sup>25</sup> Furthermore, the price structure for residential customers involves an inclining block tariff (IBT) structure whereby where the price per kL increases with usage, thereby further deviating from the efficient price.

### 2.2.2 A lack of clarity as to when the Ministerial Direction applies

The Ministerial Direction includes a broad definition of infrastructure services and SA Water must determine its prices (including for private commercial transactions) in compliance with the direction (unless otherwise approved by the Minister).<sup>26</sup> However, there is ambiguous information (on SA Water's website and the in the information brochure) regarding the access pricing approach to be adopted by SA Water.

On its website, SA Water suggests that the direction to use the retail-minus method only applies when the access is applied for under statutory regimes. It states:<sup>27</sup>

[...] Access tariffs under the statutory access regime are set according to a formula based on the gazetted statewide retail price for water, with some adjustments.

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<sup>22</sup> In contrast, the charges by other retailers can vary significantly by location, particularly in certain regional areas. For example, the District Council of Elliston charges a flat \$4.80 per kL ([link](#)), the District Council of Coober Pedy which produces and reticulates its own water, charges for \$9.00 per kL for Commercial and Residential - Tier 2 usage (see [link](#)).

<sup>23</sup> See Commission (2014, section 6). The inquiry website is <https://www.escosa.sa.gov.au/projects-and-publications/projects/water/inquiry-into-drinking-water-and-sewerage-retail-services-pricing-reform>

<sup>24</sup> The Commission (2014, p. 7) 'developed conservative estimates showing \$30 million to \$45 million in net benefits per annum over the longer term' from more cost-reflective pricing.

<sup>25</sup> Efficient use is encouraged when prices are set to the societal marginal cost of supply, which measured over a long period is known as the long-run marginal cost (LRMC). Based on previously developed estimates (see Tooth and Hefter, 2013) retail water usage prices are (at least for most customers) significantly above the LRMC of supply, with the result that consumers are discouraged from using water even when the benefits to them exceed the costs to the community.

<sup>26</sup> Whether or not Minister approvals may have taken place in the past, or might take place in future, is outside of the scope of this research report.

<sup>27</sup> <https://www.sawater.com.au/my-business/services/third-party-access-to-infrastructure> . Accessed 14 June 2023.

You are not obliged to apply for access under the statutory regime. The statutory regime is not intended to replace commercial negotiations but you have the legal right to use the statutory regime if you wish to do so.

However, in the information brochure SA Water suggests otherwise. Section 6 of the brochure ('How SA Water calculates access tariffs') begins with the statement that:

SA Water sets tariffs for transportation in accordance with a direction issued by the Minister for Water Resources under section 6 of the Public Corporations Act 1993 (South Australia). SA Water is legally required to follow the direction.

The direction requires SA Water to use a "retail minus" methodology to calculate tariffs for transporting untreated (raw) water, treated (drinking) water, and sewage.

Of note, in this text SA Water does not refer to the statutory regime. Furthermore, in a later subsection (Section 6.4 on Negotiated tariffs) it states that 'In some circumstances the Minister can authorise alternative tariffs' suggesting that any variation requires Ministerial authorisation.

Importantly, there is also the question as to whether the retail-minus method applies to services for which there is no retail service and thus no retail price. Retail services for water are defined under the Act as 'the sale and supply of water to a person for use [...] where the water is to be conveyed by a reticulated system'. SA Water's website<sup>28</sup> includes a schedule of access prices for delivery of water for non-retail services to the Barossa, Clare and Eden valleys. The documentation indicates that the prices were based on cost; that is, not calculated using a retail-minus methodology. Nevertheless, the retail-services distinction is not made clear in the information brochure or other documentation in the public domain. In my opinion, a potential access seeker may consider there is a lack of clarity as to the circumstances and extent to which SA Water may apply a retail-minus approach as opposed to a cost-based approach when negotiating access outside of the statutory regime.

Consistent with the above, the stakeholder concerns put forward to the Department of Environment and Water (DEW)'s 'Review of the Water Industry Act' (see section 2.2.3.3 below) included that, 'access arrangements could be improved if different types of access [for the purposes of water retail services and for the purposes of non-retail activities such as agriculture] were considered and priced differently.' Stakeholders proposed that cost-based pricing should be adopted, say, 'where a farmer or business seeks access to create or expand water use to support new business.'<sup>29</sup>

## 2.2.3 Prior reviews of the regime

### 2.2.3.1 National Competition Council (2017)

In 2016, the then Premier of South Australia applied to the National Competition Council (NCC) for a recommendation that the Regime be certified as an 'effective access regime'.<sup>30</sup> In its final report, the NCC (2017) recommended that the access regime be certified. On 22 May 2017, the then

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<sup>28</sup> *ibid.*

<sup>29</sup> DEW (2020, p. 13).

<sup>30</sup> Pursuant to s44M(2) of the Commonwealth *Competition and Consumer Act 2010* (CCA).



Commonwealth Treasurer decided, under Part IIIA of the *Competition and Consumer Act 2010 (Cwlth)* (CCA), to certify the access regime as effective, for a period of ten years.

### **2.2.3.2 Commission's 2019 review**

In 2019, the Commission conducted a review as to whether the access regime should continue in operation for five years from 1 July 2019. The Commission concluded the access regime should continue for a further five years on the basis that it had been in place for a short time, there was a low regulatory cost to the review, and that it had met criteria by the NCC.

Nonetheless, the Commission noted concerns by some stakeholders that the requirement on SA Water to apply a retail-minus avoidable cost pricing methodology to calculate access prices may deter new entry and competition.<sup>31</sup> These concerns included a submission by the Coorong Water Security Advisory Group.<sup>32</sup> The group implied that a retail-minus approach had been used. They stated:

the price was too high and that the current Third Party Access Amendment only allows a price reduction of approximately 20 cents per kilolitre (waiving of the River Murray license component).

### **2.2.3.3 Department for Environment and Water (2020)**

In 2020 DEW completed a 'Review of the Water Industry Act', including a discussion of the perceived limitations of access pricing. It made the following recommendations:<sup>33</sup>

As part of the consideration of pricing [...], investigate the most appropriate pricing methodologies (one or more) for access pricing to maximise efficient uptake of access arrangements, taking into account the links to state-wide pricing and the potential impacts to the existing SA Water customer base. The review should also consider the broader benefits of increased access arrangements, particularly in providing water to support agricultural development in South Australia.

Develop supporting policy to provide clarity to the circumstances under which additional infrastructure (including non SA Water infrastructure) can be declared (to be available for access arrangements) under section 86(B) of the Act.

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<sup>31</sup> The Commission also raised the concern that there is no formal mechanism for access seekers to apply to have water and sewerage infrastructure covered under the access regime.

<sup>32</sup> See [link](#).

<sup>33</sup> DEW (2020, pp. 10-13).

## 3 Arguments for and against a state-wide retail minus approach

### 3.1 Foundations of access pricing

The setting of access prices, like other forms of monopoly pricing, can be challenging. As summarised by the Australian Competition Tribunal in 2004<sup>34</sup> in a review of an access arrangement decision:

The setting of a tariff for a monopoly service provider, whether for gas, electricity or other services, is a difficult matter that has vexed regulators, service providers, producers and consumers in various parts of the world. Different solutions have been found in different places and in different industries. This complicates the process of deducing coherent theories and principles of general application.

#### 3.1.1 Access pricing objectives and principles

An important starting point for evaluating alternative approaches for access pricing is to consider the objectives, accepted pricing principles and the potential issues and challenges.

In the development of the access regime, the objectives of the Act (Clause 3) were amended to include a commonly<sup>35</sup> accepted objective for access regulation, which is to:<sup>36</sup>

promote the economically efficient operation of, use of and investment in the infrastructure by which services are provided, thereby promoting effective competition in upstream and downstream markets.

This objective is consistent with the view that the primary objective of access regulation is to promote economic efficiency<sup>37</sup> by facilitating access to monopoly infrastructure that provides a bottleneck in the provision of services. This is expected to be the case for assets like SA Water's declared pipelines, which are long-lived, have high fixed costs and low variable costs, and are unlikely to be replicated.<sup>38</sup>

Efficiency is commonly discussed in terms of:

- productive efficiency, which involves outputs being produced at lowest cost
- allocative efficiency, which involves resources being allocated to their most valued uses, and

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<sup>34</sup> Australian Competition Tribunal (2004, at 8).

<sup>35</sup> This objective mirrors an objective included in Part IIIA of the CCA (Section 44AA) which deals with third party access.

<sup>36</sup> Other relevant objectives in the Act include objectives relating to:

- promoting efficiency, competition and innovation in the water industry
- providing mechanisms for transparent price setting and to facilitate pricing structures that the true value of services provided
- promoting measures to ensure that water is managed wisely.

<sup>37</sup> ACCC (2013, pp. 12-14) expresses this view.

<sup>38</sup> See Commission (2019, p. 7) and NCC (2017, p. 17).

- dynamic efficiency, which involves improvements in allocative and productive efficiency over time, including through innovation.

The Act (Section 86P (2)) sets out the pricing principles that the arbitrator must take into account. These are that access prices:

- a) should be set so as to generate expected revenue that is at least sufficient to meet the efficient costs of providing access and include a return on investment commensurate with the regulatory and commercial risks involved
- b) should allow multi-part pricing and price discrimination when it aids efficiency
- c) should not allow a vertically integrated operator to set terms and conditions that would discriminate in favour of its downstream operations, except to the extent that the cost of providing access to others would be higher, and
- d) should provide incentives to reduce costs or otherwise improve productivity.

These principles mirror those set out in the National Access Regime<sup>39</sup> and other jurisdictions' access regimes<sup>40</sup> and are consistent with the objective stated above.

- The first principle seeks to ensure that prices provide sufficient financial incentive for efficient investment in infrastructure.
- The second principle seeks to allow flexibility in pricing (via multi-part pricing and price discrimination) to enable asset owners to balance the objective of efficient use of infrastructure (so as to encourage allocative efficiency) and sufficient revenue recovery (to be consistent with the first principle).
- The third principle seeks to prevent prices that discourage efficient competition (i.e. to encourage productively efficient competition).
- The fourth principle seeks to ensure prices encourage dynamic efficiency.

The key efficiency issues are elaborated on below.

## 3.1.2 Key efficiency issues

### 3.1.2.1 Efficient use and investment

The objective (and the pricing principles) reflects two potentially competing sub-objectives related to efficient use of the pipeline and generating expected revenue to encourage efficient investment.

There are stakeholder concerns that the efficient use of the pipelines is not maximised due to the high access prices, which leads to:

- reduction in water use resulting in loss of benefits to the user and potentially flow-on benefits to other parties, and/or
- inefficient expenditure on alternatives (e.g. water saving devices).

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<sup>39</sup> The National Access Regime refers to Part IIIA of the CCA. The access pricing principles are set out in Section 44ZZCA.

<sup>40</sup> Similar principles are contained in the *Water Industry Competition Act 2006 (NSW)*, section 41 (2).

As per the first principle discussed above, a requirement for efficient operation of, and investment in, the infrastructure is that the asset operator / owner expects to receive sufficient revenue to cover their expected costs of operation and investment (including an appropriate return on investment). Changes in the access pricing regime could alter incentives for investment in infrastructure that is subject to the access regime. For example, a low access price may discourage development of new investment that is in the societal interest.

In the case of SA Water, this risk may be low to the extent that the current regulatory structure enables SA Water to recoup its investment from regulated revenues.

Nevertheless, in keeping with the principles above, access pricing should be sufficient to recover costs of providing access including a return on the investment.<sup>41</sup>

Due to variation in demand, it is generally not possible to apply a single price that is sufficient to recoup the costs as well as encourage efficient access. The issue is potentially solved through:

- multi-part pricing, whereby costs may be recovered through a combination of charges that may include a usage charge set to encourage efficient use and a fixed charge to recover remaining costs,<sup>42</sup> and
- price discrimination, whereby different prices are charged depending on each customer's or groups of customers' willingness to pay for the service (see Box 3 below).

In the SA Water context, price discrimination could involve charging different access prices for retail-water use (for which there are state-wide retail prices), and other uses such as agriculture, for which prices may be more price-sensitive. This reason provides a rationale for SA Water being able to negotiate access prices for non-retail water uses where it believes the higher price may dissuade use.

Box 3: Example of price discrimination

The figures below illustrate the demand, customer benefits and revenue retained by the asset owner using different pricing strategies. For purposes of illustration, it is assumed there are no operating costs in using the asset.

In the left-hand figure, a single price (P) is applied to all customers. At this price the total demand is Q and the revenue received by the asset-owner is the area B (=P x Q). The area A, between the demand curve and the price, is the benefit (known as consumer surplus) that customers receive in excess of what they pay. The area C is the additional potential societal benefit that is lost due to the price charged being above what some customers are willing to pay.

Lowering the price will increase demand for the asset and increase the societal benefit from use but would reduce the asset owner's revenue and consequently disincentivise making further investments in the future.

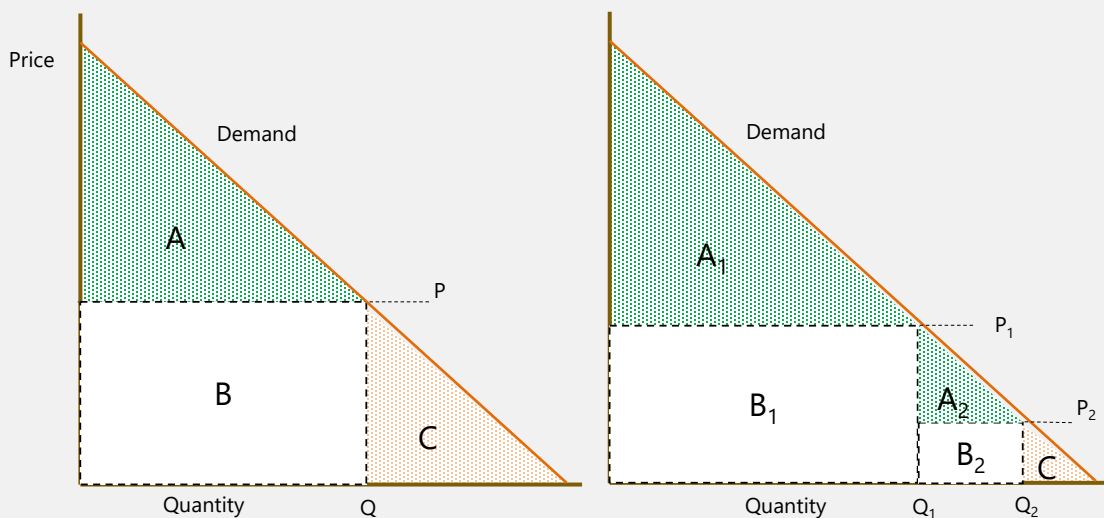
<sup>41</sup> Specifically, 'so as to generate expected revenue that is at least sufficient to meet the efficient costs of providing access and include a return on investment commensurate with the regulatory and commercial risks involved.'

<sup>42</sup> Other charges may be applied (e.g. charges related to capacity used).

In the right-hand figure, the asset owner price discriminates by charging two different prices ( $P_1$  and  $P_2$ ) to two groups with differing demand for the service. In this example, the owner is able to charge lower prices, encourage a greater level of usage, and thus provide greater customer benefit (i.e.  $A_1 + A_2 > A$ ) while still recovering the same revenue (i.e.  $B_1 + B_2 = B$ ).

The asset-owner could also use price discrimination to increase its revenue and thus incentive to invest in new infrastructure. With perfect price discrimination (first-degree price discrimination, whereby they charge each customer the maximum amount that they would be willing to pay), the asset-owner could encourage efficient use of the asset while capturing the full societal benefit, which gives efficient incentive to invest in additional infrastructure.

In practice, perfect price discrimination is unlikely to be achievable and the asset-owner will need to discriminate based on customer characteristics to maximise the societal benefit.



### 3.1.2.2 Effective competition in provision of retail services

A reduction in access prices may lead to competition in provision of the retail services provided by SA Water.

The potential benefits of competition include:

- more efficient delivery of services as result of:
  - provision of services by more efficient providers, and
  - competitive pressure on SA Water to improve its efficiency
- greater innovation in terms of service and service delivery, which over the long-term lead to improved service and lower cost, and
- competitive pressure to move towards cost-reflective (i.e. efficient) retail pricing.

There are also potential costs and risks to competition. A key concern is that an access price that is set too low risks encouraging entry by inefficient operators in competition with SA Water. This risk is heightened when costs vary as access seekers have an incentive to cherry-pick the most profitable

locations. This can lead to lost margin by SA Water, which ultimately needs to be recovered from other customers.

There are other risks to retail competition. These include:

- the risk of failure by the entrant, which ultimately imposes additional costs on SA Water and its customers,<sup>43</sup> and
- the risk of inefficiencies associated with competition – whereby some consumers are made worse off, in part because of the difficulty they have choosing between providers.<sup>44</sup>

## 3.2 Access price approaches

### 3.2.1 Overview of the key approaches

There are two key approaches for calculating access prices, commonly described as:<sup>45</sup>

- cost-based, also known as a 'cost of service', 'cost plus' or 'building block' approach, and
- retail minus, a term commonly used interchangeably with the term efficient component pricing rule, ECPR.<sup>46</sup>

In comparing the two approaches it is useful to first consider the situation in which the operator of the infrastructure (the incumbent – SA Water in this case) and the access-seeker (the entrant) are competing to provide a retail service for which there is an established retail price.

Under a cost-based approach, the access price is based on an estimate of the cost to the incumbent of providing the infrastructure service.

Under a retail-minus approach, the access price is based on retail price less a minus component equal to the incumbent's costs that are avoidable (or just avoided) due to the access seeker providing the retail service.

Under either approach, the incumbent would charge the access seeker the costs it incurs in facilitating access. In addition, an access seeker, like the incumbent, will incur their own costs. In the case of the

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<sup>43</sup> There is a risk that a retail licensee fails (because they contravene the Act, their licence ceases, or because of financial failure). For such cases, the Act provides the Commission powers to appoint an operator (a supplier or last resort, which would likely be SA Water) to take over operations to ensure that the service to the customers continues. A possible consideration in setting the access price is that the cost of this risk of failure is passed from the retail licensee and absorbed by SA Water and its customers. SA Water discusses the issue of 'Provider of last resort obligations' in their submission to the Access to Water and Sewerage Infrastructure Report, SA Water (2013, p. 19).

<sup>44</sup> This has been a significant concern with the introduction of retail competition in electricity markets. For example, Wilson and Waddams Price (2010) find evidence that, in response to alternative retail offers, many consumers switched to deals that made them worse off.

<sup>45</sup> As noted by the Essential Services Commission of Victoria (ESC Victoria) (2009, Volume 2, p. 76), other methods such as competitive benchmarking have been used or considered to set access prices; however, such approaches appear rare.

<sup>46</sup> Arguably, the term 'retail minus' is a broader term than ECPR.

SA Water pipelines, the access seeker incurs the costs of obtaining the bulk water allocations, the costs of reticulation and retailing the service to customers.

In situations where the infrastructure owner's retail prices are themselves cost-based (i.e. determined by a build-up of costs), the two approaches may deliver the same result. In such case:

- Retail price = Bulk water cost + Transportation costs + Incumbent's distribution/retailing cost
- Cost-based access price = Transportation costs + Facilitation costs
- Retail-minus access price =
  - Retail price + Facilitation costs (=Bulk water cost + Transportation costs + Incumbent's distribution/retailing cost + Facilitation costs)
  - *less* Avoided costs (= Incumbent's distribution/retailing cost + Bulk water cost)  
= Transportation costs + Facilitation costs  
= Cost-based access price.

A difference in the values from the two approaches will arise when the retail price is not itself cost-based. This is commonly the case because of the application of a uniform (in this case state-wide) pricing approach whereby the same price is charged regardless of locational cost differences.

Differences in the cost-plus and retail-minus approaches may also arise due to how costs are calculated. That is, the costs assumed in calculating a cost-based access price may differ to those used in calculating the retail price and retail-minus formula.

## 3.2.2 Variants and issues

For any methodology, there are many variations due to design choices that need to be made. These include decisions on issues related to:

- the costs that are recovered
- the structure of the access prices
- other matters of scope<sup>47</sup> and process.<sup>48</sup>

In many respects, these issues are similar to those that arise in regulating utility prices.

### 3.2.2.1 The costs to be recovered

The decisions regarding how costs are measured and applied have been a key matter in arbitration and the development of access pricing frameworks. Both methodologies require cost estimates, although the requirements for a cost-based methodology are substantially more.

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<sup>47</sup> Issues of scope include the relevant geographic area for prices (and consequently the extent adjustments are made by location), and whether access prices are set on a system-wide basis or need to be modified for individual situations.

<sup>48</sup> Process issues refer to matters of how access prices are determined and associated procedures. For example, these could include procedures as to how costs are ring-fenced.

For any service component (e.g. transportation, distribution) there are several choices to be made. These include choices relating to:

- how joint and common costs are allocated
- whether costs are calculated on a marginal, incremental, or average basis
- costs pertaining to existing investments – the value of assets, the extent and rate of depreciation, and the rate of return on the investment
- how risks associated with new infrastructure investments are valued.<sup>49</sup>

A key issue for the retail-minus methodology relates to what assumptions are made for the costs the incumbent avoids. The Ministerial Direction is based on avoidable costs, which are the costs SA Water could avoid in the long term if it completely ceased provision of the retail service. A narrower selection of costs is avoided costs, which refers to the actual costs the incumbent would avoid. As discussed in section 4.2.1, in NSW, a measure larger than avoidable cost is used. The use of avoided, avoidable costs or some other measure has been a key issue in access disputes and the pricing framework. Similarly, in applying a cost-based methodology, decisions are required as to how joint and common costs are allocated.

### **3.2.2.2 Structure of access pricing**

Decisions will also be made on the structure of access prices. When a retail minus approach applies, the issue predominantly relates to the structure of the minus component.<sup>50</sup> However, another consideration relevant to the case of SA Water is whether the access price should follow a retail usage price's IBT structure or whether the access seeker should be charged a single volumetric charge.

When a cost-based methodology applies, the choice of pricing structure will involve similar considerations to regulating a retail-price. They will typically involve using multi-part tariffs and require consideration of the basis for usage charges (e.g. whether a short-run marginal cost, or long-run marginal cost, or other measure should be used). Other price structure issues include the extent to which:

- capacity based charges are used and, where capacity constraints are an issue, the extent to which pricing is used to allocate scarce capacity<sup>51</sup>
- charges vary with time of use, which could be by season (e.g. during peak and non-peak times) or by a more refined time-step.<sup>52</sup>

### **3.2.3 Experience in other jurisdictions and sectors**

Across jurisdictions and sectors, including in the water industry, there have been substantial debates over whether a retail-minus approach or cost-based approach should be applied. The issue has been

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<sup>49</sup> ESC Victoria (2009, pp. 86-87).

<sup>50</sup> For example, in setting wholesale prices, IPART chose to calculate the minus component based on the number of customers and the length of the network.

<sup>51</sup> See for example, ESC Victoria (2009, pp. 87-88).

<sup>52</sup> See for example, ESC Victoria (2009, pp. 85-86).



contested in a number of access pricing disputes, been applied in a number of regulatory frameworks, and more broadly been discussed by regulators when developing principles.

There are some notable access pricing disputes involving consideration of the retail-minus approach (in some cases, referred to as ECPR).

- In the early 1990s, New Zealand Telecom attempted to apply the ECPR with respect to access to its fixed-line network in a dispute with a rival, Clear Communications.
- In 2006/07, Services Sydney Pty Limited sought access to Sydney Water's network. The Australian Competition and Consumer Commission (ACCC) resolved that retail-minus approach be used for access pricing.
- In 2006, the United Kingdom Competition Appeal Tribunal (UK CAT) arbitrated on a dispute (the Albion case),<sup>53</sup> involving application of the ECPR methodology to charges for the common carriage of non-potable water, purchased by Albion Water, through a pipeline and water treatment plant owned by another party. The UK CAT rejected the use of ECPR.

Notable determinations by regulators include the following.

- In 2017, the Independent Pricing and Regulatory Tribunal of New South Wales (IPART) determined wholesale prices (essentially a bundled price for access to network services and water) for Sydney Water and Hunter Water services using a retail minus methodology.
- For its most recent price review, Ofwat (the economic regulator of the water sector in England and Wales) introduced a new access pricing framework, which rejected the retail-minus approach in favour of a cost-based approach.<sup>54</sup>

Several other regulators have discussed access pricing approaches. These include the Queensland Competition Authority (QCA), ESC Victoria, and Economic Regulatory Authority of Western Australia (ERA WA).

Debates over access pricing appears to have declined in recent years, which may be explained by the proactive action of regulators in determining pricing frameworks and network separation.

For references and further discussion, see Appendix B.

## 3.3 Arguments for the retail-minus approach

### 3.3.1 The issues with the cost-based approach

The key argument for the retail-minus approach stems from the issues with the cost-based approach that occur when the retail-price (as is the case for SA Water) is itself not cost-based.

In locations where the retail-price is *above* the cost-based equivalent price, a cost-based access price can enable entrants to provide competing retail services at lower cost than the incumbent can provide even when the entrant is less productively efficient. In such cases, the incumbent would lose an

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<sup>53</sup> CAT UK (2006).

<sup>54</sup> See Ofwat (2016a and 2016b).

operating margin on the sales gained by the entrant. Where the incumbent's revenue is regulated (as is the case with SA Water) this would invariably lead to price increases to the incumbent's remaining customers to recover the lost revenue relative to the case when the incumbent provided the services. A related concern is the impact on the incentives for further investment. Too low an access price reduces incentives for investment.

Similarly, in locations where the retail-price is *below* the cost-based equivalent amount, a cost-based access price would put new entrants at a disadvantage to the incumbent and thus discourage potentially efficient entry.

These issues can occur where geographically uniform pricing is applied, leading to the retail prices being higher than the cost-based price in some locations and lower in other locations. In such situations, there is the concern of 'cherry-picking' whereby new entrants choose to compete where the costs are low and do not compete when the costs are high. This concern was a key driver for the commitment to the Ministerial Direction that was introduced. DEW (2020, p. 11) summarised:

During consultation on the Bill for the third party access regime in 2015 concerns were raised that an access regime had the potential to increase costs for existing SA Water customers. Based on state-wide pricing, the embedded cross subsidies would be removed and this would lead to inefficient competition with the low, cost-of-supply customers moving to competitors leaving the high, cost-of-supply services being shared by a smaller customer base. To address this, the Minister at the time committed to direct SA Water on the pricing methodology (Access Pricing Direction) that should be used in negotiating access prices; with the direction being that SA Water must use a "retail-minus methodology" based on the state-wide SA water retail price (see sidebar), unless directed otherwise by the Minister.

### **3.3.2 The advantages of a retail-minus methodology**

The key advantage of the retail-minus approach is in addressing the above issues with the cost-based approach when the retail price is not cost-based.

The approach aims to set a price that would enable a potential competitor to the incumbent to supply at lower cost than the incumbent if and only if it was more efficient than the incumbent. Under the retail-minus approach, the potential entrant will only provide a competing service if the sum of the facilitation costs and its costs (other than the access price) are less than costs avoidable by the incumbent. That is, if there is a net cost reduction associated with its entry.

For these reasons, the retail-minus has been branded the efficient component pricing rule (ECPR) and where postage stamp pricing has been regulated, regulators and access-owners have typically argued for a retail minus approach.

The retail-minus is also generally considered<sup>55</sup> as simpler and less costly to apply than the cost-based approach as it only requires calculating the avoidable costs.

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<sup>55</sup> See, for example, ESC Victoria, (2009, p. 9).

## 3.4 Arguments against the retail-minus approach

Despite the theoretical attractiveness, the retail-minus approach has attracted significant debate and controversy. The key issues can be summarised as follows.

- The approach can entrench monopoly profits and inefficient pricing and, therefore, should be coupled with retail price regulation.
- The approach focusses on productive efficiency but neglects to address dynamic efficiency.
- Due to issues in application, the retail-minus access prices are likely to be set at a level too high, such that they favour the incumbent and deter potentially beneficial competition.
- The approach is not applicable for other uses not provided by the asset-owner, which do not have a retail price.

### 3.4.1 Entrenching monopoly profits and inefficient pricing

Perhaps the most significant concern with the retail-minus approach is that when the retail-price is not regulated, it risks 'entrenching monopoly rents [i.e. profits] or inefficiencies in the retail price'.<sup>56</sup>

Where the minus component is equal to the incumbent's avoided costs, the incumbent earns the same profit regardless of whether it, or a competing entrant, provides the service. This was an important concern in the Albion case. The UK CAT (2006, para. 641) stated:

An important feature of ECPR [retail-minus] is that the incumbent makes the same profit irrespective of whether the new entrant enters the market or not. In effect, the entrant pays the incumbent in perpetuity for all the revenues (including profits) that the incumbent had previously received, less the costs which the incumbent has avoided as a result of the fact that it is the new entrant, rather than the incumbent, which is now supplying the customer.

Similarly, a consequence of the approach is that there is no competitive pressure on the incumbent to apply a cost-reflective price structure (that encourages allocative efficiency). Rather, under the retail-minus approach, a new entrant would be expected to adopt the existing retail price structure.

A common conclusion of parties who have considered the retail-minus approach is that it is not appropriate to apply when there is not economic regulation of the retail price. Three examples are listed below.

- UK CAT (2006, para. 740) concluded 'It does not seem to be disputed in this case that an ECPR approach to access prices needs to be accompanied by a system for the regulation of retail prices which ensures a reasonable relationship between those prices and the costs of supply.'
- ESC Victoria (2009) recommended a retail-minus methodology but included in its justification that this is 'where the final retail price is regulated'.
- QCA (2019, p. 138) concluded '... successful implementation of the retail minus methodology requires regulation of retail prices to ensure tariffs reflect prudent and efficient costs of

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<sup>56</sup> UK CAT (2006, para. 650).

service ... Otherwise, the method embeds any monopoly rents or subsidies applied by the infrastructure owner.'

The form of regulation is important. Revenue cap regulation, as is applied to SA Water, protects against the risk of monopoly profits; however, it does not protect against the risk of an inefficient price structure.

### **3.4.2 Lack of focus on dynamic efficiency**

A closely related issue (to the above) is the lack of incentives for dynamic efficiency. As discussed earlier, the retail-minus approach aims to ensure that firms are incentivised to seek access and compete with the incumbent only when they can do so at a lower cost; that is, when they are more productively efficient than the incumbent.

However, the retail-minus approach is criticised on the basis that it does not promote innovation and competition that will drive dynamic efficiency benefits. A key concern is that it may take some time for new entrants to build the scale and capability to be as efficient as the incumbent. Consequently, there is a risk that competition that may drive efficiencies over the long-term will be discouraged. Furthermore, by protecting the incumbent's profit, the retail-minus approach does not result in any pressure on the incumbent to innovate and contain costs and, consequently, improve services and/or lower prices.

The lack of dynamic efficiency benefits was also a key concern in the Albion case. The UK CAT (para. 798) noted that 'It was not disputed ... that ECPR does not aim to produce the 'dynamic efficiency' benefits normally associated with the competitive process'.

To the extent that new entrants need to time to become as efficient as the incumbent, there can be a trade-off between the short-term risks to productive efficiency and the long-term benefits of dynamic efficiency. In evaluating this trade-off, a number of parties have argued in favour on focussing on dynamic efficiency.<sup>57</sup>

### **3.4.3 Margin (or price) squeeze**

An argument made by opponents to the retail-minus approach is that it typically leads to a 'minus' component that is too small (i.e. an access price that is too high) to enable efficient competitors to earn an appropriate margin. This is commonly referred to as a margin (or price) squeeze. Margin squeeze was a key concern in dispute on the use of ECPR approach in the Albion case in England (CAT UK 2006) and various other cases in other sectors.<sup>58</sup>

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<sup>57</sup> For example, see arguments by IPART (2017, section 4.4.1) and Marshall (2005, pp. 177-188) who, in addition to noting others' views on the topic, writes '[s]hould access pricing decisions promote static efficiency (ie, productive and allocative efficiency) over dynamic efficiency, or vice versa? The critical point in this debate is that dynamic efficiency is the key factor driving productivity improvements in an economy. In other words, dynamic efficiency is central to enhancing long-term economic welfare. It is submitted, therefore, that the trade-off between static and dynamic efficiency which access pricing decisions will inevitably entail should always be in favour of dynamic efficiency.'

<sup>58</sup> Scott (2021) provides several examples from the United States, Australia and New Zealand.

In theory, a margin squeeze could occur when applying a cost-based or retail-minus approach. A possible argument for the risk being lower under a cost-based approach is that the cost-based approach enforces greater transparency over the costs to be included. That is, the risk of price-manipulation is greater under the retail-minus approach.

### 3.4.4 Pricing for services without retail prices

The retail-minus methodology relies on access prices being set relative to a retail price. However, access may be sought for uses for end-purposes unrelated to retail water services such as used for irrigation or industrial production; that is, a purpose that does not depend on reticulated infrastructure and does not compete with SA Water's retail water services.

There are arguments for why access for these non-retail uses may be priced differentially (i.e. specifically lower).

- As the use of access does not lead to competition with SA Water's retail services, there is no risk of cherry-picking and impacting on SA Water's retail water revenue.
- Uses such as irrigation for agriculture:
  - are more likely to be price sensitive and consequently a (high) retail price has greater potential to distort demand
  - can generate externalities, by providing additional economic benefits to the local community that are in addition to the benefits received by the user
  - have different needs, in particular, with regard to 'security of supply'. For example, an agriculture user may prefer a lower price with a less guaranteed supply.

An example is the pricing of transportation services for the Broken Hill Pipeline (see Appendix B, page 42), whereby the fixed costs of the pipeline are recovered from the supplier of urban services and the offtake customers (e.g. agriculture users) are charged incremental costs.

Stakeholders' submissions to the DEW's 'Review of the Water Industry Act' advocated for such differential pricing, describing these alternative uses with reference to an 'economic expansion model' (see Box 4 below).

Box 4: Views on access prices captured in DEW (2020)

In DEW's 2020 'Review of the Water Industry Act', stakeholders (2020, p. 12) distinguished between two types of access that it described as:

- a piggy-back model, whereby an entrant 'provides a water retail service into an existing SA Water supplied area without owning any assets' in competition with SA Water
- an economic expansion model, whereby 'a farmer or business seeks access to create or expand water use to support new business'.

DEW noted that the concern over cherry picking (which it described as an arbitrage situation), was a key rationale for the retail-minus methodology in setting access prices. However, it noted that the economic expansion model could be priced differentially, based on an actual marginal cost of delivering the water plus a profit margin provided to the infrastructure owner.

As summarised by DEW (p. 12):

It has been suggested that new access arrangements could be facilitated if the government changed its pricing mechanisms for the economic expansion model to a method based on actual marginal cost plus a profit margin for SA Water. To avoid concerns in relation to the piggy-back model this situation could be inhibited using other mechanisms, or through the continued use of a retail-minus methodology for this type of access.

### 3.5 Summary

The UK CAT (2006, para 835) declared that ‘ECPR [retail minus] is in fact a controversial methodology’ and that they had ‘been provided with no examples or case studies of ECPR being successfully used.’

Nevertheless, subsequent to this statement both the ACCC and IPART have applied the retail minus approach for Sydney Water whose prices are regulated by IPART. Furthermore, Australian regulators have expressed support for the retail minus methodology, *but only* on the basis that retail prices are regulated.

- ERA WA (2008) concluded that ‘a retail-minus approach to be appropriate for a State-based third party access regime for Western Australia.’ However, it also noted that ‘the successful implementation of a retail-minus access pricing regime in Western Australia would depend on the effective regulation of retail prices to ensure that tariffs reflect the costs of service.’
- ESC Victoria (2009) recommended that ‘In most cases, the price of access should be determined using a ‘retail minus’ methodology’ on the basis that the final retail price is regulated and that the administrative costs of applying the ‘cost of service’ approach for all infrastructure services would be high.
- QCA (2014) acknowledged that there ‘is general support for the retail minus methodology’ and that ‘it is preferred in instances where the existing retail price is regulated’ on the basis that it is simpler to apply and where the retail price reflects average costs it minimises the risk of ‘cherry-picking’.

In the case of SA Water, revenues – but *not retail prices* – are regulated, and as previously identified (and quantified) by the Commission, there would be significant efficiency benefits to more cost-reflective retail pricing. The current access pricing regime has not led to retail competition. Furthermore, stakeholder concerns have been raised as to whether access pricing has been sufficiently supportive of access for non-retail uses (such as irrigation and/or industrial production).<sup>59</sup> Recognising this, options to address these issues are considered in the following section.

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<sup>59</sup> Commission (2019, pp. 9-11) and DEW (2020, pp. 10-13).

## 4 Options

In this section I discuss a range of options that could address or mitigate concerns with the efficiency of the current arrangements. These include options involving changes to the access pricing methodology as well as alternative measures that could help meet the third-party access objectives.

The options are categorised as relating to:

- a shift to a cost-based methodology for determining access prices
- access for retail services that are in competition with SA Water
- access for non-retail uses (e.g. irrigation) that are not in competition with SA Water.

### 4.1 Shifting to a cost-based methodology

Given the concerns associated with the retail-minus methodology in the absence of economic regulation of retail prices, it is natural to consider whether a cost-based methodology might be used to determine access prices.

There are multiple options as to how this might be implemented. In theory, a cost-based approach could be applied to setting access prices for retail services with appropriate adjustments to address the risk of cherry-picking and to ensure the same level of revenue recovery.

A starting point for the approach would be to determine the costs of providing the transportation service by each individual pipeline. Consistent with the pricing principles this would include the operational costs of providing the service and 'include a return on investment commensurate with the regulatory and commercial risks involved'. Using a building block approach, this would involve determining an appropriate asset value, depreciation schedule and rate of return on investment.

In applying a cost-based approach there are a few important considerations.

First, to prevent cherry picking, a cost adjustment to the standard building-block approach would be required. This would involve estimating the costs of providing water retail services by location for other components of the value chain, including the retail service component and the bulk water component. If the cost variation by location reflects only the costs of the service provided by the incumbent (e.g. the transportation service)<sup>60</sup> then a single access price that would prevent cherry picking could be calculated by using an average of the incumbents' costs.

However, the cost adjustment to address cherry picking is likely to be more complex to estimate. If the cost of provision varies by component to be provided by the access seeker, then, to prevent cherry picking, adjustments will be required to reflect variations in SA Water's avoidable costs. For example, the costs of obtaining bulk-supply may vary by location due to different sources being used and the costs of distribution and retailing may vary by location due to differences in scale, topology and local resource costs. In such cases, applying a cost-based approach would necessarily involve calculating SA Water's avoidable costs for the location of interest as well as their average avoidable costs.

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<sup>60</sup> Transportation costs may vary because of differences in pumping costs and capacity constraints.

Second, to maintain the same level of revenue recovery, an additional charge would be required as the current retail usage charges are used to recover sunk costs. Under a cost-based approach the rationale, and nature of these costs would be made more explicit and ideally, a clear framework would be developed for how these additional costs are to be recovered and specifically allocated across customer groups. For example, this framework might clearly articulate which costs should be recovered from non-retail customers.

Finally, the price structure would be an important issue in developing a framework for cost recovery in developing a cost-based approach.

Potentially, the access pricing structure could lead to changes in retail pricing structures. For example, if the access charge recovered less from usage-based charges, then a rival to SA Water might outcompete SA Water by selling to customers (e.g. large users) who would prefer an alternative price structure. This, in turn, could prompt a reconsideration of pricing. While there would likely be efficiency benefits, there would inevitably be some distributional consequences, and likely resistance, to such change.

Alternatively, such changes could be prevented by aligning access charges to the existing pricing structure (the recovery of costs via usage charges incorporating an IBT). This would prevent the pricing structure change along with the concomitant risks and benefits.

Regardless, a benefit of the cost-based approach would be to enforce greater transparency over the costs and how they are recovered. It would necessitate providing clarity over the cross-subsidies by location and how sunk-costs are to be recovered. This is not an immaterial benefit, but potentially the benefit could be obtained by other means; for example, by requiring SA Water to report on their framework for recovering sunk costs.

In summary, while feasible, the cost-based approach would be more complex than the current retail-minus approach.

## **4.2 Access for retail services**

I understand that to date no parties have obtained access (or sought access via the regime) to the pipelines to compete with SA Water in providing retail water services. The access price approach may be a barrier to such competition. As discussed above, the retail minus methodology aims to ensure that entry will be efficient, but risks discouraging competition to SA Water that may in the long run prove beneficial.

Competition for retail services may be encouraged using access pricing, by:

- improving the financial incentives for entry by modifying how the retail minus adjustment is calculated, and/or
- removing informational barriers associated with access pricing.



## 4.2.1 Encouraging entry by increasing the minus component

A key design choice in applying the retail minus methodology is in determining the 'minus' component. The larger the minus component the greater the incentive for an access seeker to compete in the provision of services.

In its 2015-2016 review of wholesale prices for Sydney Water and Hunter Water, IPART described four options for the minus component. In order of size these are:<sup>61</sup>

1. Avoided cost – the costs that the utility would actually avoid if it no longer directly supplied the services. In effect, the short run marginal costs of the incumbent providing the service.
2. Avoidable cost – the costs including long term costs that the utility may avoid in the present and future or could have avoided in the past if the entry of a wholesale customer was expected.
3. 'As-efficient competitor' costs – the costs a competitor as-efficient as the incumbent would incur, excluding the access price, in providing the service. This should be similar to the avoidable cost.
4. 'Reasonably efficient competitor' costs – the costs a 'reasonably efficient business would incur, excluding the access price, in providing the service. This approach recognises that it may be unrealistic for a new entrant to achieve the scale economies of the incumbent utility immediately.

The current Ministerial Direction is consistent with the avoidable cost definition (point 2 above) – it states that they are the costs that 'SA Water would otherwise incur [that it] *could* avoid in the *long term* if it *completely ceased* provision of the retail service to the customer(s).' [emphasis added].<sup>62</sup>

In its review, IPART decided upon the 'reasonably efficient competitor' costs approach. In applying the approach IPART acknowledged the risk that it may encourage inefficient entry in the short-term but considered that these risks were outweighed by the long-term benefits. IPART (2017, p. 51) summarised:

The reasonably efficient competitor cost standard is designed to support entry by utilities that are less efficient than the wholesale service provider. We consider that this is necessary at this stage of the market's development, to encourage entry when increasing returns to scale apply.

It could lead to some inefficient entry, particularly where the wholesale customer does not become more efficient over time. However, IPART can manage this risk by periodically reviewing the use of the reasonably efficient competitor cost approach, including considering transitioning over time to the use of the 'as efficient competitor' cost or avoidable cost approach to calculating the minus values.

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<sup>61</sup> There are variants within these. In applying a retail-minus approach, Ofwat included the use of 'ARROW' costs that were Avoidable, Reducible or Recoverable in some Other Way. OFWAT (2013, p. 5). This is also discussed in Appendix B of this paper.

<sup>62</sup> Of note, this wording mirrors the text included in the ACCC's arbitration report (ACCC, 2007, p. 2) when discussing the distinction between avoided and avoidable costs.

Implementing such an approach would require some consideration as to how to define and quantify what is meant by 'reasonably efficient'. This is considered in the following sub-section.

## **4.2.2 Removing information barriers**

### **4.2.2.1 Clarifying how retail minus would be applied**

The current Ministerial Direction specifies a retail minus methodology using avoidable costs but does not provide additional detail of how this would be applied. For example, it leaves uncertain, what assumptions would be used in calculating avoidable costs and what price structure would apply.

In calculating the minus component there are many decisions that may need to be made. These include, for example, assumptions relating to the approach for valuing assets, the scale of reticulation, the return on assets, depreciation, and the type of water meters to be used.<sup>63</sup> Potentially, the minus component could be calculated on case-by case basis or it could be calculated using a general formula to apply on a system-wide basis.<sup>64</sup> Uncertainty regarding how the minus component will be calculated, the costs in making the calculation, and the quantum itself, may prove to be a barrier to potential entrants.

There are also uncertainties and potential issues as to the pricing structure. In the case of SA Water, a consideration will be how the retail minus will apply under the IBT structure, whereby residential customers' usage prices vary with the volume used. For example, if the IBT structure were to apply to the access price, then a competitor to SA Water using the pipelines would need to provide SA Water with the necessary information to calculate the tariff for each tier. If the access charge was not based on an IBT then conceivably the access seeker would have an advantage in selling to high volume residential customers.

Clarifying the above issues (e.g. through development of a published position paper) could encourage competition by removing an information barrier.

### **4.2.2.2 Clarifying the treatment of facilitation costs**

The current Ministerial Direction specifies that the access price, is the retail fees and charges minus avoidable costs 'plus any facilitation costs to provide the designated services'. This current wording and the description of facilitation costs in the information brochure suggest that facilitation costs are always positive.

However, an access seeker's contributions could lower SA Water's costs (or provide other benefits) such that the net impact is to reduce SA Water's costs. SA Water have indicated this was the case for

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<sup>63</sup> These are also factors considered by IPART in its review of access prices. See IPART (2017, Appendix E).

<sup>64</sup> For example, in NSW, IPART developed a system-wide approach to prices. For schemes not including a recycled-water plan, IPART (2017) use 'customers' and 'kilometres of reticulation' as cost drivers for estimating the minus component.

BIL, and that they reduced the fee accordingly.<sup>65</sup> In NSW, IPART<sup>66</sup> in its review of prices for wholesale services noted that facilitation costs could be negative and explicitly referred to net facilitation costs in the retail minus methodology.<sup>67</sup>

To make it clear that the retail minus methodology accounts for positive contributions, it would be preferable that the term *net facilitation* costs be used, and that SA Water's documentation (the website and the information brochure) be updated accordingly.

### 4.3 Access for non-retail uses

There is mixed evidence as to the extent access prices are a barrier to efficient use of the pipelines for non-retail uses.

As discussed in section 2.2, there is a large and growing number of access agreements for non-retail uses, and, as reported by SA Water, access prices for such uses in the Barossa, Clare and Eden Valleys are cost-based. However, SA Water also earns a profit on existing agreements and stakeholder concerns have been raised that access prices are a barrier to additional use.<sup>68</sup> In examining the issue, it is useful to first consider the flexibility available to, and incentives, for SA Water.

It appears there are no material barriers to SA Water encouraging access for non-retail uses. Regardless of whether the Ministerial Direction limits SA Water in negotiating access prices (see section 2.2.2), SA Water can always seek approval from the Minister for exceptions to the use of the retail-minus method.

SA Water has some incentives to encourage non-retail uses.

- It was established with 'the principal responsibility of providing water and sewerage services for the benefit of the people and economy of the State'<sup>69</sup> and its primary functions include providing services for 'supply of bulk water' in addition to 'supply of water by means of reticulated systems'.<sup>70</sup>
- It receives and retains revenues for providing access for non-retail use.

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<sup>65</sup> SA Water noted that 'This capital contribution was applied by us to upgrade our infrastructure in a manner that enabled us to transport BIL's required volume and maintain our services to other customers.' SA Water BIL Schedule of Charges 2022-2023, p.1. Available at [https://www.sawater.com.au/\\_data/assets/pdf\\_file/0008/662858/BIL-Infrastructure-Limited-BIL-water-transportation-2022-2023.pdf](https://www.sawater.com.au/_data/assets/pdf_file/0008/662858/BIL-Infrastructure-Limited-BIL-water-transportation-2022-2023.pdf).

<sup>66</sup> IPART (2017, pp. 8-9 & Section 6).

<sup>67</sup> In its final report, IPART (2017) stated 'We consider that net facilitation costs (ie, additional costs less cost savings to the wholesale service providers from servicing the wholesale customer) should be included in wholesale prices. This means that if, for example, a wholesale customer's recycled water operations result in avoided or deferred costs to the wholesale service provider, this should be reflected in the wholesale price through a price reduction. Examples of such avoided or deferred costs could include a reduction in bulk water supply and/or sewage treatment costs - including through deferral of the need for asset or infrastructure augmentation.'

<sup>68</sup> Commission (2019, pp. 9-11) and DEW (2020, pp. 10-13).

<sup>69</sup> *South Australian Water Corporation Act 1994* (sect 3).

<sup>70</sup> *ibid* (Sect 7 (1)).

Furthermore, SA Water publicly indicates that it encourages access for such uses.

- On its website it states ‘If your new project leads to new investment and jobs – and needs access to water and sewerage infrastructure – we encourage you to get in touch.’<sup>71</sup>
- In the information brochure it:
  - includes typical scenarios of non-retail use including use for horticulture and industrial park purposes, and
  - states ‘SA Water aims to facilitate economic development and business growth.’

However, based on the information brochure and the website, there are also some inconsistencies in its messaging. Section 6 of the information brochure begins with the stated requirement that the Ministerial Direction ‘requires SA Water to use a “retail minus” methodology to calculate tariffs for transporting untreated (raw) water, treated (drinking) water, and sewage.’ This text does not clarify when this direction applies and not until a later section does it note that the Minister may approve otherwise.

Nevertheless, the concern may exist that SA Water’s incentives are insufficient and that there is underutilisation of the pipelines for non-retail uses as SA Water lacks financial incentive to consider the externalities associated with greater pipeline usage, particularly in regional areas where the benefits of increased economic development flow to the regional community.

Possible strategies to encourage greater access for non-retail uses include:

- encouraging greater interest among potential access seekers through access pricing, and/or
- modifying the incentives for SA Water to encourage use of access:
  - by changing SA Water’s financial incentives, and/or
  - by using ‘soft’ (i.e. non-financial) measures.

These are discussed below.

### **4.3.1 Encouraging greater interest among potential access seekers through access pricing**

If the access regime was used by a party seeking access for non-retail use, the Commission (as conciliator) and the independent arbiter must refer to the pricing principles contained in the Act (refer section 3.1.1). These principles allow using price discrimination to encourage efficiency and thus should lead to an access price that would enable efficient access. Nevertheless, potential entrants may be concerned, and consequently dissuaded from applying, on the expectation that the access prices will be unfavourable.

To reduce such concerns and encourage the use of price discrimination to facilitate efficient access, the Commission could publish (or encourage SA Water to publish) guidance that emphasises the principles and expectations on how access pricing would apply for non-retail uses including

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<sup>71</sup> See <https://www.sawater.com.au/my-business/services/third-party-access-to-infrastructure>.

clarification regarding the application of the Ministerial Direction. This could provide guidance on cost recovery.

Such guidance could increase the confidence of access seekers that they will achieve a low-cost access for non-retail uses. A potential downside is that it could reduce SA Water's incentive to encourage developing new markets by reducing their expectations of the revenues they would recover.

### **4.3.2 Increasing financial incentives for SA Water to encourage access**

Currently, a portion of SA Water's access revenues are passed through to customers via a reduction in SA Water's revenue cap (as calculated and included under a shared infrastructure revenue adjustment mechanism).<sup>72</sup> Such financial arrangements may impact on SA Water's incentives to expand the use of the pipelines. However, these disincentives may be mitigated by the Commission utilising a shared infrastructure mechanism that is not be linked to the expansion of third-party access agreement revenue. For example, the Commission could communicate that the shared infrastructure amount will be:

- a percentage of the profit earned by SA Water on the shared infrastructure (thereby guaranteeing a return to SA Water), or
- a lump sum that is not linked to future sales.

### **4.3.3 'Soft' incentives for SA Water to encourage access**

An alternative approach to increase SA Water's incentives to expand the use of the pipelines is to use non-financial ('soft') measures. A key non-financial measure used by regulators in different jurisdictions is to require the regulated utility to report against a performance goal. For example, IPART requires Sydney Water and Hunter Water to produce reports on a range of matters in the public interest including annual reports on water conservation and environmental outcomes (see Box 5).

Similarly, the Commission might require SA Water to periodically report on how its meeting the objective of promoting the economically efficient operation and use of the infrastructure.

Under the Act the Commission can impose a licence condition that requires '[SA Water] to monitor and report as required by the Commission on indicators of service performance determined by the Commission'.<sup>73</sup>

Box 5: Examples of soft regulatory measures

Economic regulators have used a range of 'soft' measures to influence the behaviours of utilities. Examples include the following.

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<sup>72</sup> The methodology of the shared infrastructure mechanism is outlined in the Commission's 2020 regulatory determination (Commission, 2020) covering the four-year period commencing 1 July 2020.

<sup>73</sup> The Act (Sect. 25 (1) (i)).

- The ESC Victoria used soft measures to address concerns of delays by electricity distributors in connecting new property developments on greenfield sites. In 2021 it directed distributors to develop standards and more recently directed them to report on new Greenfields Negotiated Electricity Connection Customer Service Standards.<sup>74</sup>
- The ESC Victoria recently conducted a review of the Port of Melbourne’s compliance with its Pricing Order. ESC Victoria had no powers to impose penalties. Nevertheless, in response the Port of Melbourne voluntarily proposed an Undertaking, which has been accepted and is now legally binding.<sup>75</sup>
- IPART imposes several reporting requirements on utilities it regulates, on topics of societal interest including:<sup>76</sup>
  - water conservation<sup>77</sup>
  - dam safety<sup>78</sup>
  - environmental performance.<sup>79</sup>

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<sup>74</sup> <https://www.esc.vic.gov.au/electricity-and-gas/market-performance-and-reporting/resetting-greenfields-negotiated-electricity-connection-customer-service-standards-2023>.

<sup>75</sup> <https://www.portofmelbourne.com/victorian-government-accepts-port-of-melbourne-undertaking-in-response-to-esc-findings/>.

<sup>76</sup> For Sydney Water these reports can be found at <https://www.sydneywater.com.au/about-us/our-publications/reports-publications.html>. The reporting manual requirements for Sydney Water are described in IPART (2019b).

<sup>77</sup> [https://www.sydneywater.com.au/content/dam/sydneywater/documents/water-conservation-report\\_21-22.pdf](https://www.sydneywater.com.au/content/dam/sydneywater/documents/water-conservation-report_21-22.pdf).

<sup>78</sup> <https://www.sydneywater.com.au/content/dam/sydneywater/documents/annual-dams-safety-report-summary.pdf>.

<sup>79</sup> <https://www.sydneywater.com.au/content/dam/sydneywater/documents/annual-environment-report.pdf>.

## 5 Conclusions

In summary, there appears to be common acceptance that, where there is geographically averaged pricing and price regulation, a retail-minus approach to access pricing is appropriate to ensure there is not inefficient competition from entrants who ‘cherry pick’ the lowest cost locations, which, in the case of SA Water, would lead to existing customers paying more for the higher cost parts of the network. While, potentially, a cost-based approach can be adjusted to address this risk, the retail-minus approach is recognised as significantly less complex. This rationale is reflected in actions taken by regulators<sup>80</sup> and recommendations made in developing pricing principles and frameworks.

However, the use of the retail-minus approach has been controversial where retail prices are not regulated, in which case the retail-minus approach can entrench monopoly profits and inefficient pricing. While the revenue cap set by the Commission addresses the risk of monopoly profits, SA Water’s retail price structure is not regulated, and the Commission has previously found that retail usage prices have not been set at cost-reflective efficient levels.

Regardless of the pricing-structure, there are additional issues and options relating to access pricing and the incentives for entrants. These are usefully examined separately for retail and non-retail uses.

For retail uses, a key question is whether access pricing facilitates and incentivises competition to SA Water. SA Water has no incentive to encourage competition to the retail services it provides. A common concern is that access prices protect the incumbent from competition (due to issues with their implementation and/or due to the incumbent’s established advantages) and/or that lower access prices are needed to help capture the long-term (dynamic efficiency) benefits of competition.

To encourage retail competition, financial incentives may be used. An approach (adopted in NSW by IPART) is to reduce the access price to reflect that new entrants are likely to be less efficient in the short-term, but over the long-term will drive efficiency gains that will outweigh the risk of inefficient entry in the short-term.

Retail competition may also be encouraged by reducing information barriers for potential entrants. While the Ministerial Direction sets the methodology (unless otherwise approved by the Minister), potential entrants may find it a barrier that there is limited information on what the access prices would be and the details of how these would be determined. In contrast, in NSW, IPART has set system-wide wholesale prices (using the retail-minus method);<sup>81</sup> similarly, in England, the regulator Ofwat is setting access prices in line with a bottom-up wholesale charging approach.<sup>82</sup>

For non-retail uses, SA Water has greater incentive to negotiate, and has negotiated, cost-based access prices. Nevertheless, its incentives to encourage third-party access may be less than optimal and stakeholder concerns have been raised that access pricing (including the use of a retail-minus

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<sup>80</sup> In NSW, where IPART has regulated postage-stamp water prices, both the ACCC (in resolving an access dispute) and IPART (in establishing wholesale prices) have opted for a retail-minus approach.

<sup>81</sup> See IPART (2017).

<sup>82</sup> See Ofwat (2016a and 2016b).

approach) may have been a barrier to greater use of the pipelines in areas outside of the established valleys. Options to encourage greater use of the pipelines for non-retail uses include:

- increasing the financial or non-financial incentives for SA Water to encourage greater use, and/or
- clarifying in the public domain that a cost-based approach should be applied for determining access prices for non-retail uses.

There are costs and benefits of the different options.

Broadly there are three potential sources of efficiency providing societal benefits relating to:

1. greater usage of the pipelines for non-retail uses. These benefits may be significant in part because the benefits extend beyond that of the access-seeker.
2. increased competition (or threat of competition) in provision of retail water services. There is limited research on the size of these benefits. They may be small given the highly commoditised nature of retail water services and that SA Water can leverage competitive markets to develop the reticulated network. Competition could create pressure to reform retail prices. However, it is questionable whether access pricing reforms would be an effective or appropriate means of driving change.
3. incentives for efficient investment in and operations off the pipeline infrastructure. While issues may exist, no major concerns have been raised to date.

The key costs and risks associated with the options largely relate to the:

- administrative costs of change and ongoing implementation
- risk of inefficient competition for retail services.

A summary of the options against the costs and benefits is provided in the table below.



Table 1: Summary of costs and benefits of alternative options

<b>Options</b>	<b>Costs / risks / issues</b>	<b>Potential benefits</b>
Use cost-based methodology with adjustments to reflect state-wide pricing	<ul style="list-style-type: none"> <li>• Significantly more complex</li> <li>• Need not result in changes in pricing</li> <li>• Disruption from pricing reform</li> </ul>	<ul style="list-style-type: none"> <li>• Would enforce greater transparency over current pricing distortions and potentially lead to access and retail pricing reform</li> </ul>
<b>For retail uses</b>		
Increase the minus in the retail-minus	<ul style="list-style-type: none"> <li>• Risk of encouraging inefficient entry</li> </ul>	<ul style="list-style-type: none"> <li>• Potential for long-term dynamic efficiency benefits from retail competition</li> </ul>
Reduce information barriers for third party access in competition for retail use		
<ul style="list-style-type: none"> <li>• Clarify facilitation costs</li> </ul>	<ul style="list-style-type: none"> <li>• No significant issues</li> </ul>	<ul style="list-style-type: none"> <li>• Small benefit</li> </ul>
<ul style="list-style-type: none"> <li>• Provide additional detail on access pricing method</li> <li>• Pre-determined rates</li> </ul>	<ul style="list-style-type: none"> <li>• Administrative cost with risk of no benefit</li> <li>• Risk of error &amp; inefficient entry</li> </ul>	<ul style="list-style-type: none"> <li>• Increase likelihood of retail competition and subsequent benefits</li> </ul>
<b>For non-retail uses</b>		
Increase SA Water incentives to encourage third party access for non-retail use		
<ul style="list-style-type: none"> <li>• Restructure revenue share</li> </ul>	<ul style="list-style-type: none"> <li>• Minor administrative cost</li> </ul>	<ul style="list-style-type: none"> <li>• Some (perhaps minor) increase in incentive</li> </ul>
<ul style="list-style-type: none"> <li>• Use soft 'non-financial incentives'</li> </ul>	<ul style="list-style-type: none"> <li>• Administrative costs of establishing and monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• Increased incentive</li> </ul>
Clarify/confirm use of cost-based approach for non-retail uses	<ul style="list-style-type: none"> <li>• Minor administrative costs</li> <li>• Risk to SA Water's unregulated revenue (directly offset as benefit to access seekers)</li> <li>• Risk of costs associated with application of scheme</li> </ul>	<ul style="list-style-type: none"> <li>• Some increase in incentive for access and subsequent benefits from use</li> </ul>

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## Appendix A Additional details about the regime

### The declared assets

The current access regime applies to declared water and sewerage infrastructure services in South Australia.<sup>83</sup> However, the full coverage of the access regime relates only to declared water pipelines operated by SA Water. SA Water’s website describes six of the eight declared pipelines (see Table 2). A map of water pipelines, including those that are declared for the purposes of the access regime, is provided in Figure 1.

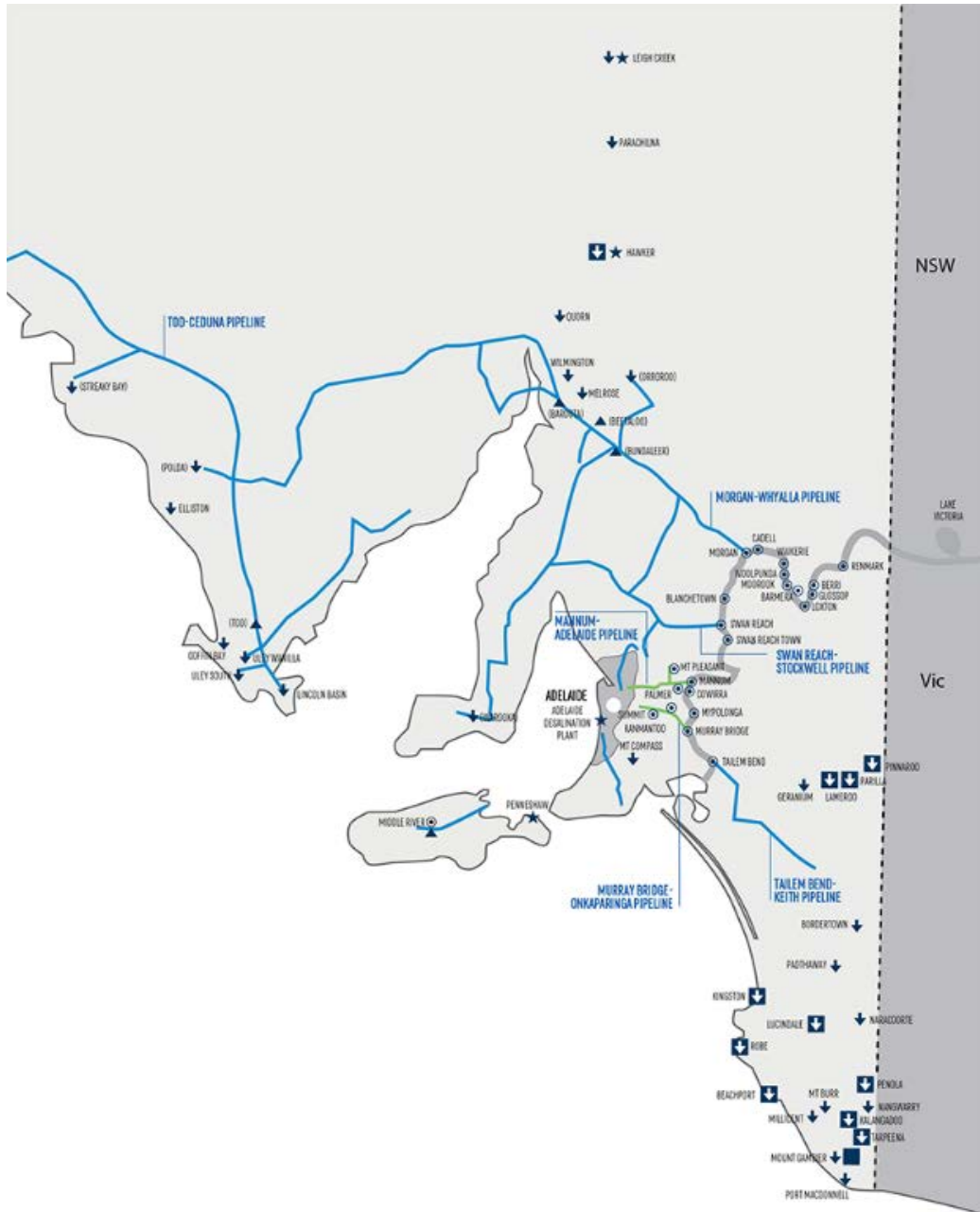
Table 2: Declared water pipeline infrastructure (that are described on SA Water’s website)

Pipeline	Water	SA Water’s description
Murray Bridge to Onkaparinga	raw water	This 50 kilometre pipeline – almost half underground – was the second pipeline built to supply Adelaide with drinking water. It carries water from just north of Murray Bridge to the Mount Bold Reservoir and our water treatment plants in Kanmantoo and Balhannah in the Adelaide hills.
Mannum to Adelaide	raw water	The 87 kilometre Mannum to Adelaide Pipeline was the first major pipeline built from the River Murray to serve the needs of Adelaide. Supplies water to the metropolitan network through a water treatment plant at Anstey Hill. It directly supplies residents in the Torrens Valley and north eastern foothills suburbs and can also deliver water to six reservoirs.
Swan Reach to Paskeville	Treated water	This 189 kilometre pipeline was built to supply the Barossa Valley, Lower North and Yorke Peninsula areas. It serves townships and farmland along its route, from Swan Reach on the Murray to Paskeville on the Yorke Peninsula. The water is treated at Swan Reach as it is pumped into the pipeline.
Myponga to Adelaide	Treated water	Myponga water treatment plant draws water piped directly from the Myponga Reservoir. Myponga is the only treatment plant (serving metropolitan Adelaide) that does not source water from the River Murray.
Tailem Bend to Keith	Treated water	This 132 kilometre pipeline feeds 800 kilometres of branch mains and covers an area of 6,470 square kilometres. Water is treated in Tailem Bend before it commences its journey to Keith.
Morgan to Whyalla	Treated water	Two pipelines which delivers 66 megalitres of water annually to the upper Spencer Gulf. Travelling 641 kilometres from Morgan on the River Murray to Whyalla, branches of the pipeline serve Iron Knob, Jamestown, Peterborough and many other small towns and farming districts.

Source: <https://www.sawater.com.au/water-and-the-environment/how-we-deliver-your-water-services/networks-and-water-treatment-facilities>. Two declared pipelines (Eyre Peninsula and Glenelg to Adelaide) are not described on the webpage and excluded from the table.

<sup>83</sup> SA Government (2016b).

Figure 1: SA Water Pipelines



## The arbitration process

A high-level summary of the arbitration process is as follows. For more details, please see the Act, and the NCC (2017). By way of background, an arbitration [flow chart](#) can be found on the Commission's website.

In the event of a dispute:

- The proponent seeking access makes an access proposal to SA Water (section 86I).
- SA Water within a month must:
  - give written notice to the Commission and any affected parties
  - give the proponent a preliminary indication of whether SA Water is prepared to provide access and, if so, on what terms and conditions.
- SA Water has a duty to negotiate in good faith (section 86J).
- After 2 months a party (the proponent, an affected party, SA Water) may refer the dispute to the Commission (section 86K).
- The Commission must seek to resolve the dispute by conciliation having regard to the same factors as would be relevant in an arbitration of the dispute. This process may involve voluntary or compulsory conferences.
- If a dispute is still not resolved (within 6 months and/or after reasonable attempts to do so) the Commission may refer the dispute to arbitration by a properly qualified, independent person they select (after consultation with the parties).
- The arbitrator is required to account for a set of factors and principles. Of note these include:
  - the benefit to the public from having competitive markets
  - any direction given to SA Water by its Minister
  - pricing principles which state that the access prices should
    - be set to generate expected revenue sufficient to meet the efficient costs of providing access (including an appropriate return on investment)
    - allow multi-part pricing and price discrimination when it aids efficiency
    - not facilitate SA Water to discriminate in favour of its downstream operations
    - provide incentives to reduce costs or otherwise improve productivity.
- An award must be made within the period of 6 months from the date on which the dispute is referred to arbitration.

## Appendix B Other jurisdictions and sectors

### Overview

There have been several access pricing disputes and developments that are relevant to this paper.<sup>84</sup>

- The ECPR was developed in the 1960s and 1970s in relation to access to rail track by American economist, William Baumol, who then applied it to telecommunications (with co-authors Robert Willig and Sidak) in the 1980s and 1990s.
- The use of ECPR was intensely debated in New Zealand in the early 1990s when New Zealand Telecom attempted to apply it with respect to access to its fixed-line network.
- In the mid-2000s the ECPR/retail-minus methodology was the subject of two prominent access pricing disputes in relation to the water sector.
  - In 2006 the ACCC arbitrated on a dispute in relation to declared services provided by Sydney Water.
  - In 2006 the CAT UK was required to settle a dispute *Albion Water Ltd v. Water Services Regulation Authority and Dŵr Cymru* (the Albion case).
- From the mid-2000s, several regulators in the water sector have proactively examined access-pricing issues to set wholesale prices and/or frameworks for determining access prices.

Details on the above is included in sub-sections below.

Discussion about retail minus and related access pricing issues appear to have declined in recent times. This may in part be due to the proactive development of frameworks of regulators and the increasing use of network (or vertical) separation, whereby the owner of the monopoly network infrastructure is vertically separated from the competing retailers. Where there is vertical separation, cost-based pricing for access is uncontroversial as there is no retail price.

The decline in the discussion on retail minus and related access pricing issues is reflected in the frequency of the use of the phrases in publications. This is illustrated in the figure below, taken from Google Books Ngram Viewer,<sup>85</sup> which shows the frequency of phrases of interest that have occurred in a corpus of books over the years 1985 to 2019. As shown in the figure, interest in the terms 'efficient component pricing rule' and 'retail minus' increased in the late 1990's peaked around 2000 and has steadily declined since. The decline had coincided with the increased use of the term 'network separation'.

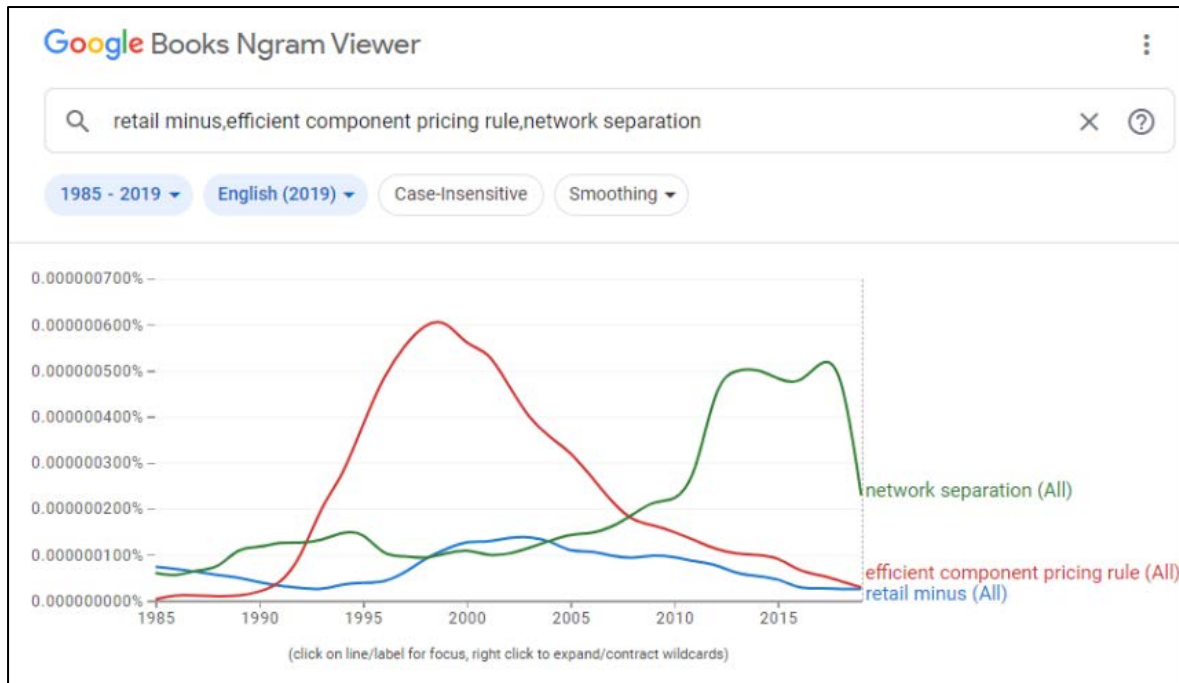
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<sup>84</sup> This text draws on Albon (2007) and CAT UK (2006).

<sup>85</sup> See <https://books.google.com/ngrams/info> for more information on Google Books Ngram Viewer.



Figure 2: Frequency of the use of phrases of interest over time



Source: <http://books.google.com/ngrams>

## NSW

### Access dispute in relation to declared services provided by Sydney Water<sup>86</sup>

In late 2006, Services Sydney Pty Limited (Services Sydney) appealed to the ACCC to resolve a dispute between it and Sydney Water concerning the access pricing methodology for the 'declared' sewage transportation services supplied by Sydney Water. Services Sydney proposed a bottom-up building-block (i.e. cost-based) methodology whereas Sydney Water proposed a retail-minus methodology.

On 22 June 2007 the ACCC made its 'Final determination' and issued its 'Statement of reasons'.<sup>87</sup> In determining the appropriate access pricing methodology, the ACCC focussed on three key issues relating to asset valuation, structure of access prices, and postage-stamp pricing. The ACCC determined that the access price should be a charge-per-customer calculated using a retail-minus methodology. The minus component was determined to be Sydney Water's avoidable costs calculated using a building-block approach and using a depreciated optimised replacement cost approach to valuing assets.

<sup>86</sup> For more information see <https://www.accc.gov.au/media-release/access-dispute-in-relation-to-declared-services-provided-by-sydney-water>.

<sup>87</sup> The ACCC's final determination and statement of reasons are contained within its arbitration report (ACCC 2007).

## **Sydney Water and Hunter Water – Wholesale Pricing review**

Over the period 2015 to mid-2017, IPART conducted a review into the wholesale pricing for Sydney Water and Hunter Water.<sup>88</sup> The review considered a 'wholesale service' as being a service purchased from Sydney Water or Hunter Water that is used to compete for 'retail' customers. This included purchasing drinking water to on-sell to retail customers. In effect, it involves a bundled price for access to the monopoly network infrastructure and the treated water.

In determining prices, IPART considered three broad approaches being:

- a retail-minus approach
- a cost-based approach
- non-residential charges – in effect, treating a wholesale customer like any other large non-residential customer.

IPART adopted a retail-minus approach. This was supported by Sydney Water, Hunter Water, and the Water Services Association of Australia, but it was opposed by potential entrants.

For the 'minus' component, IPART considered the following options:

- Avoided costs
- Avoidable costs
- Efficient competitor costs
- Reasonably efficient competitor costs.

IPART adopted the 'Reasonably efficient competitor costs' option. It argued it was the appropriate approach to calculating the minus component based on its potential to deliver dynamic efficiency benefits. IPART recognised that 'Retail minus reasonably efficient competitor costs' may encourage some inefficient entry and that over time it may be preferable to move to a 'Retail minus efficient competitor costs' as competitors became more efficient.

IPART applied the method to develop system-wide prices for wholesale services (where a recycled water service was not available).

## **Broken Hill Pipeline**

The Broken Hill Pipeline is a 270km subterranean pipeline from the Murray River to Broken Hill and surrounds, built by WaterNSW in 2016 and 2017 following a direction of the NSW Government. There are two sets of customers for the pipeline being:

- Essential Water, which provides the retail services to the community of Broken Hill and surrounds
- a small number of offtake customers (e.g. farmers) located along the pipeline.

The pipeline is a useful case-study in the pricing of pipeline transportation services and the need to balance the dual objectives of efficient use and revenue recovery.

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<sup>88</sup> <https://www.ipart.nsw.gov.au/Home/Industries/Water/Reviews/Metro-Pricing/Wholesale-pricing-for-Sydney-Water-and-Hunter-Water>.

The prices for transportation services are determined by IPART (see IPART 2019a) and include (for both sets of customers) a volumetric usage charge and a daily access charge. The usage charges are set to encourage efficient use – they are same for all customers and are based on the marginal cost of transportation (which reflect the energy costs of pumping). The access charges are used to recover the fixed costs of the pipeline and additional incremental costs. IPART chose to recover all of the fixed pipeline costs from Essential Water (which would then be passed through to the Broken Hill customers) and just charge offtake customers their associated incremental fixed costs. IPART (2019a, p. 4) summarise:

For access charges, it reflects our decision to allocate fixed costs between Essential Water and offtake customers on the basis of each party's contribution to the need to incur the cost of the Pipeline. The Pipeline was built (and designed) to supply Essential Water (and its customers in Broken Hill) – as reflected in Essential Water's guaranteed right to the Pipeline's transportation services, whereas offtake customers do not have such a guaranteed right. On this basis, under our prices, Essential Water would pay for the fixed costs of the Pipeline; whereas offtake customers would pay the incremental fixed costs associated with their supply.

## Victoria

In 2008/09 the ESC Victoria conducted an inquiry into access regime for water and sewerage infrastructure services.<sup>89</sup> The review was conducted over a period of 10 months and included releasing and seeking feedback on an issues paper and a draft report, hosting a public forum, and completing the project with a final report (released over three volumes).

The issue of retail minus was a key consideration. In its final report, ESC Victoria (2009) concluded that 'In most cases, the price of access should be determined using a 'retail minus' methodology. In some instances, it will be more appropriate to use a 'cost of service' approach.'

ESC Victoria recommended that the cost-of-service approach should be used in two circumstances.

- Where the costs associated with providing an infrastructure service can be easily identified, such as services provided by a discrete infrastructure facility where a separate regulatory asset value for the facility could be easily calculated.
- Where a price for providing infrastructure services has already been calculated.

Of note, the ESC Victoria recommendation for retail minus reflected that the retail price is regulated. On this the ESC Victoria (2009, p. 82) stated [emphasis added]:

In the draft report, the Commission recommended that the retail minus approach generally be used to calculate access prices **where the final retail price is regulated** and the infrastructure operator provides services in the regulated retail market.

This draft recommendation reflected the Commission's conclusion that the administrative costs of applying the cost of service approach for all infrastructure services would be high and could result in the water business incurring unnecessary costs if few or no access

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<sup>89</sup> <https://www.esc.vic.gov.au/water/inquiries-studies-and-reviews/state-based-access-regime-water-and-sewerage-inquiry-2008>

requests for a particular service are received. In contrast, the retail minus approach is relatively easy to adopt in the presence of regulated retail prices and only needs to be applied when an access application is received. Further, it avoids concerns about cherry picking since access prices will be set at the same level of aggregation as the regulated retail prices.

...

The Commission remains of the view that the retail minus approach is the most pragmatic solution, **given the existing policy settings and the current regulatory framework** for the Victorian water sector, and the current uncertainty about the nature and extent of future access requests. It therefore confirms its recommendation that the retail minus approach be used to calculate access prices in the majority of cases in the Victorian water industry.

## Queensland

In 2013/14, the QCA was directed to investigate and develop a long-term regulatory framework (and pricing principles) for retail water in South East Queensland.<sup>90</sup> This included a review of third-party access pricing and the key issue of whether a cost-based or retail-minus methodology should be applied.

The QCA (2014, p. 140) recommended that:

7.4 Third-party access prices be based on the cost of service methodology, and take account of relevant joint or common costs. Any departure from this methodology (such as applying the retail minus methodology) is to be justified.

7.5 Where retail prices are averaged across user groups (postage stamp tariffs) access prices be adjusted (where required) to ensure costs are not increased for remaining customers.

The QCA acknowledged that there 'is general support for the retail minus methodology' and that 'it is preferred in instances where the existing retail price is regulated' on the basis that it is simpler to apply and where the retail price reflects average costs it minimises the risk of 'cherry-picking'.

However, it argued that successful implementation of the retail minus methodology requires regulation of retail prices to ensure tariffs reflect prudent and efficient costs of service and that [otherwise], the method embeds any monopoly rents or subsidies applied by the infrastructure owner.'

It argued that the cost-of-service method is preferred on the basis that:

- (a) it represents a clearer relationship between prices and the costs of providing access
- (b) it does not rely on the retail price being determined by the economic regulator

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<sup>90</sup> <http://www.qca.org.au/project/urban-retail-water/seq-retail-water-long-term-regulatory-framework/>

(c) it is the most appropriate approach where there are significant additional infrastructure costs required to meet the access seeker's needs (likely to be the case for SEQ retailers)

(d) efficient costs may be more readily discernible as the SEQ retailers have been subject to price monitoring by the QCA. However, cost allocation methodologies have not been reviewed (and would need to be).

Any concerns regarding 'cherry-picking' can be resolved through averaging to ensure that access prices do not result in increased costs of service delivery for remaining customers. An adjustment to the access price may therefore be included.

## Western Australia

In 2008, ERA WA conducted an *Inquiry on Competition in the Water and Wastewater Services Sector*.<sup>91</sup> The ERA WA concluded<sup>92</sup> that 'a retail-minus approach to be appropriate for a State-based third party access regime for Western Australia.' However, it also noted that 'the successful implementation of a retail-minus access pricing regime in Western Australia would depend on the effective regulation of retail prices to ensure that tariffs reflect the costs of service.'

## Tasmania

Access pricing has not been a topic of consideration in the Office of the Tasmanian Economic Regulator reviews into water.

## England and Wales

In England and Wales, water services are provided by private firms under the economic regulation of Ofwat. The approach to access pricing has changed over time following changes to the legal framework.<sup>93</sup>

Prior to 2014, the legal framework<sup>94</sup> required that access prices ('charges payable by a licensed water supplier to a water undertaker') be fixed in accordance with the 'costs principle'. This was interpreted as setting access charges based on a retail-minus approach, with the minus component being equal to the incumbent's ARROW costs (costs that the incumbent Avoids, Reduces or Recovers in Other Ways).

The approach was controversial and the subject of a much-publicised dispute that was settled by CAT UK (see Albion dispute below).

The *Water Act 2014 (UK)* removed the costs principle from legislation and in preparation for the 2019 price review (PR19) Ofwat developed a new access-pricing framework. At the same time Ofwat

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<sup>91</sup> <https://www.erawa.com.au/inquiries/completed-inquiries/2007-inquiry-into-competition-in-the-water-and-waste-water-services-sector>

<sup>92</sup> See ERA WA (2008, Section 4.3.2).

<sup>93</sup> See summary in Ofwat (2014).

<sup>94</sup> *Water Industry Act 1991 (UK)*.

introduced price controls for wholesale services, which it viewed would become the basis for determining access prices.

Box 6: Albion case (Albion Water Ltd v. Water Services Regulation Authority and Dŵr Cymru)

In 2006 the CAT UK was required to settle a dispute *Albion Water Ltd v. Water Services Regulation Authority and Dŵr Cymru* (the Albion case).<sup>95</sup> The case related to access charges paid by Albion in respect of the common carriage of non-potable water, purchased by Albion, through a pipeline and water treatment plant owned by Dŵr Cymru and on to Albion's customers.

A key issue in the case was the use of the ECPR methodology. In its judgement (CAT UK 2006) the tribunal reviewed the international uses and literature on ECPR.

The tribunal rejected the use of ECPR. In doing so it stated (para. 738, para. 835):

The evidence before the Tribunal is to the general effect that ECPR is in fact a controversial methodology, both in the academic literature and as a matter of regulatory practice, a fact that is not referred to in the Decision. [...]

We have been provided with no examples or case studies of ECPR being successfully used.

In our view ECPR is not a safe methodology to use in this case for the purpose of determining the reasonableness of the First Access Price because: (i) the 'retail' price used in the calculation is not shown to be cost-related as regards the distribution element; (ii) the evidence strongly suggests that that price is itself excessive;

## Uses of retail minus in other sectors

For the Albion case, the UK CAT (2006) included a review of the use of ECPR in other sectors and jurisdictions. Below is a summary of key findings from that review and from other reviews.<sup>96</sup>

### New Zealand

As noted by Albon (2007), 'The ECPR was intensely debated in New Zealand in the early 1990s when an attempt was made by New Zealand Telecom to apply it with respect to access to its fixed-line network by its rival, Clear Communications.' Clear argued that the rule 'offends common sense; it requires Clear to underwrite Telecom's current profits and level of operating efficiency.' The application of the ECPR was allowed by the High Court but rejected by the Court of Appeal.

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<sup>95</sup> <https://www.catribunal.org.uk/cases/10462404-albion-water-limited-albion-water-group-limited>.

<sup>96</sup> These include Albon (2007), Scott (2021) and discussions for IPART's review on wholesale prices (IPART 2017).

In 2001, the use of the ECPR (which was known as the Baumol-Willig rule) was expressly banned under the *New Zealand Telecommunications Act 2001*, which stated:<sup>97</sup>

To avoid doubt, the Baumol-Willig rule does not apply in respect of any applicable initial pricing principle or any applicable final pricing principle that provides for a forward-looking cost-based pricing method as a possible pricing principle.

The New Zealand Commerce Commission (2006) in a submission on the *Telecommunications Amendment Bill 2006* proposed (p. 9) to 'do away with retail-minus pricing for the unbundled bitstream service and replace it with a form of cost-based pricing.'

## United Kingdom

The UK CAT (2006, para. 735–737) noted limited use of ECPR in other sectors in the United Kingdom. They stated:

...in the telecommunications market there appears to have been a somewhat half-hearted attempt, soon abandoned, to use a form of ECPR in the early 1990s.

ECPR has not been used in the United Kingdom gas and electricity industries.

## The United States

The UK CAT (2006, para. 734-734) stated they were aware of only one case (*Verizon Inc v Federal Communications Commission 535 US 467 (2002)*) that had debated the use of ECPR. In that case the Federal Communications Commission rejected ECPR in favour of the cost-based method known as Total Element Long-Run Incremental Cost. On ECPR it stated:

We conclude that ECPR is an improper method for setting prices of interconnection and unbundled network elements because the existing retail prices that would be used to compute incremental opportunity cost under ECPR are not cost-based. Moreover, the ECPR does not provide any mechanism for moving prices towards competitive levels; it simply takes prices as given [...]

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<sup>97</sup> See paragraph 2(1) of Schedule 1, Part 1, Subpart 1 of that Act, available at <https://www.legislation.govt.nz/act/public/2001/0103/latest/DLM127744.html>.

## About Sapere

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