

#### **Tribunal Members**

The Tribunal members for this review are:

Carmel Donnelly, Chair

Deborah Cope

Sandra Gamble

Enquiries regarding this document should be directed to a staff member:

 Matthew Mansell
 (02) 9113 7770

 Maricar Horbino
 (02) 9290 8409

 Letitia Watson-Ley
 (02) 9290 8402

The team working on this review: Eva McBride, Bee Thomson, Courtney Barry, Milo Letho and Adrian Thomas.

#### **Invitation for submissions**

IPART invites comment on this document and encourages all interested parties to provide submissions addressing the matters discussed.

#### Submissions are due by Friday, 9 September 2022

We prefer to receive them electronically via our online submission form. You can also send comments by mail to:

2021 Essential Water's water and wastewater price review in Broken Hill Independent Pricing and Regulatory Tribunal PO Box K35

Haymarket Post Shop, Sydney NSW 1240

If you require assistance to make a submission (for example, if you would like to make a verbal submission) please contact one of the staff members listed above.

Late submissions may not be accepted at the discretion of the Tribunal. Our normal practice is to make submissions publicly available on our website as soon as possible after the closing date for submissions. If you wish to view copies of submissions but do not have access to the website, you can make alternative arrangements by telephoning one of the staff members listed above.

We may decide not to publish a submission, for example, if we consider it contains offensive or potentially defamatory information. We generally do not publish sensitive information. If your submission contains information that you do not wish to be publicly disclosed, please let us know when you make the submission. However, it could be disclosed under the *Government Information (Public Access) Act 2009* (NSW) or the *Independent Pricing and Regulatory Tribunal Act 1992* (NSW), or where otherwise required by law.

If you would like further information on making a submission, IPART's submission policy is available on our website.

### The Independent Pricing and Regulatory Tribunal (IPART)

Further information on IPART can be obtained from IPART's website.

### **Acknowledgment of Country**

IPART acknowledges the Traditional Custodians of the lands where we work and live. We pay respect to Elders, past, present and emerging. We recognise the unique cultural and spiritual relationship and celebrate

the contributions of First Nations peoples.

## Contents

1	Water and wastewater bills to remain stable, before inflation	1
2	Our draft decisions on prices and bills	2
2.1 2.2	Water and wastewater bills would remain stable, before inflation For some untreated and chlorinated water customers, water usage prices would	2
۷.۷	increase by more than inflation	4
2.3	We have largely accepted Essential Water's proposals for the pricing of other services and trade waste	5
3	How we determined these draft prices	6
3.1	The community generally opposed price increases and feedback on service	
	quality was mixed	6
3.2	Essential Water's costs to deliver services are relatively stable	6
3.3	Our draft prices assume the existing WaterNSW Pipeline Government subsidy will	10
~ <i>1</i>	continue	10
3.4	We accepted Essential Water's proposed water and wastewater usage forecasts to set prices	12
4	We value your feedback on our draft decisions	13

# Water and wastewater bills to remain stable, before inflation

We have set draft prices for water and wastewater services provided by Essential Water to Broken Hill and surrounding communities to apply from 1 January 2023 until 30 June 2026. Under these prices, bills would be unchanged for most residential and business customers, before inflation.

To set these draft prices, we reviewed Essential Water's pricing proposal, which set out a 13% increase in its costs and an expanded government subsidy which would limit price increases to around 2% per year, before inflation.

Overall, we consider most of Essential Water's pricing proposal is reasonable. We reviewed Essential Water's proposed investments in its water and wastewater infrastructure, ongoing operating costs and its customer and sales forecasts. Our draft decision is to accept most of what Essential Water has proposed, but also to make some adjustments in areas where we think it is achievable for Essential Water to provide better value for money for customers by reducing its costs. These cost reductions mean that prices would remain stable.

Broken Hill is one of the most arid parts of NSW, so secure and affordable water plays an important role in maintaining greenspaces and managing health risks from exposure to high levels of lead. Since releasing our Issues Paper in September 2021, we heard from people in Broken Hill who told us they did not support Essential Water's proposed price increases. Some people told us that water quality and security in Broken Hill has noticeably improved since the new WaterNSW Pipeline came into use,¹ but also that Essential Water's infrastructure in Broken Hill is ageing and needs to be upgraded.

The full cost of providing water and wastewater services in Broken Hill is around \$4,100 per customer on average per year, but customers currently contribute around half that cost. The remaining half is the cost Essential Water incurs from transporting water through the WaterNSW Pipeline, which the NSW Government currently subsidises and is paid for by NSW taxpayers. Our draft prices assume the existing WaterNSW Pipeline subsidy will continue for the next 4 years. With the existing subsidy, typical residential water and wastewater bills in Broken Hill would remain in line with (or lower than) bills in other regional areas with similar demographics to Broken Hill. If this subsidy did not continue, bills would increase substantially.

In addition to the WaterNSW Pipeline subsidy, Essential Water proposed that the NSW Government fund a new affordability subsidy to partly offset an increase in its own costs. However, we found opportunities to reduce Essential Water's proposed costs and hold draft prices constant over the next 4 years, before inflation. Our view is that there is no need for a new affordability subsidy at this time.

### 2 Our draft decisions on prices and bills

Essential Water supplies water to around 9,900 residential customers and around 600 non-residential customers. Its 2 largest customers are mines, which together account for around a third of its customers' total water sales.<sup>2</sup>

Essential Water provides the following water services:

- Treated water also known as drinking water to Broken Hill and Menindee.
- **Untreated water** to some locations in Broken Hill and Menindee, and to customers along the Menindee, Stephens Creek and Umberumberka pipelines (the EW Pipelines).
- **Chlorinated water** which is untreated water that has been disinfected but not filtered to customers in Silverton and Sunset Strip.

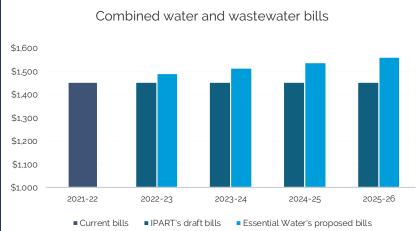
It also provides wastewater services to customers in Broken Hill, where it operates 2 wastewater treatment plants. The sections below summarise our draft decisions on prices for these water and wastewater services.

### 2.1 Water and wastewater bills would remain stable, before inflation

Under our draft decisions, water and wastewater bills for most residential and business customers would remain stable, before inflation. This means bills would increase each year by inflation only.

Our draft water and wastewater bills are lower than Essential Water's proposal, where bills for most residential and business customers were proposed to increase by around 2% each year, before inflation.





Note: Bills are in \$2021-22. Essential Water's proposed bills include an affordability subsidy. Source: IPART analysis and Essential Water, Essential Water Pricing Proposal, June 2021, p 103.

Essential Water's proposal included the NSW Government funding a new affordability subsidy. Otherwise Essential Water's proposed bills would have increased by closer to 6% each year, before inflation.

Each year, we adjust Essential Water's prices for inflation. Table 2.1 and Table 2.2 show our draft decisions on water and wastewater prices to apply from 1 January 2023, including inflation of 5.1%. Prices will continue to be adjusted in line with inflation each year to 30 June 2026, as future inflation information becomes available.

Table 2.1 Our draft decisions on Essential Water's water prices to apply from 1 January 2023 (including inflation)

	\$2021-22	\$2022-23		
Usage prices (\$/kL)				
Treated	1.88	1.98		
Untreated	1.65	1.73		
Untreated (EW Pipeline customers)	1.06	1.20		
Chlorinated	1.40	1.54		
Service prices (\$/year)				
Residential	342.89	360.38		
Non – residential meter				
20mm connection	342.89	360.38		
• 150mm connection	19,288	20,271		
Mines (\$'000s)				
Perilya	2,408	2,531		
• CBH	581	611		

Source: IPART analysis.

Table 2.2 Our draft decisions on Essential Water's wastewater prices to apply from 1 January 2023 (including inflation)

	\$2021-22	\$2022-23
Usage price (\$/kL)		
Non-residential	1.34	1.41
Service price (\$/year)		
Residential	546.37	574.23
Non – residential		
20mm connection	608.24	639.26
150mm connection	34,214	35,958

Source: IPART analysis

Taking inflation into account, a typical household would pay an annual water and wastewater bill of \$1,527 in 2022-23. This is about \$40 lower than the bill under Essential Water's proposed prices.

### 2.2 Some usage prices would increase by more than inflation

For some customers, bills will increase by more than inflation. There are 3 groups of customers who receive an untreated or chlorinated water service from Essential Water. It supplies:

- Untreated water to a small number of customers along the Menindee, Stephens Creek and Umberumberka pipelines (i.e. EW Pipeline customers).
- Untreated water to other customers, such as Broken Hill City Council and the mines.
- Chlorinated water to customers in Silverton and Sunset Strip.

EW Pipeline customers currently do not pay the same water usage price as other untreated water customers in Broken Hill. This is because, historically, they were incidental customers located along pipelines that transported water into Broken Hill. They received a lower price to reflect the fact that they were not driving costs of supplying water to Broken Hill to the same extent as other untreated water customers in Broken Hill. Since the WaterNSW Pipeline came into operation, this situation has changed. EW Pipeline customers are now indistinguishable from other untreated water customers in Broken Hill as they are all connected to the same water supply network.

For this reason, we have made a draft decision to continue to transition untreated water usage prices, so eventually there will be a single untreated water usage price for all of Essential Water's untreated water customers. We are also continuing to transition the chlorinated water usage price to this single untreated water usage price. We made the same decision in the last review because it better reflects the cost of supplying chlorinated water to customers.

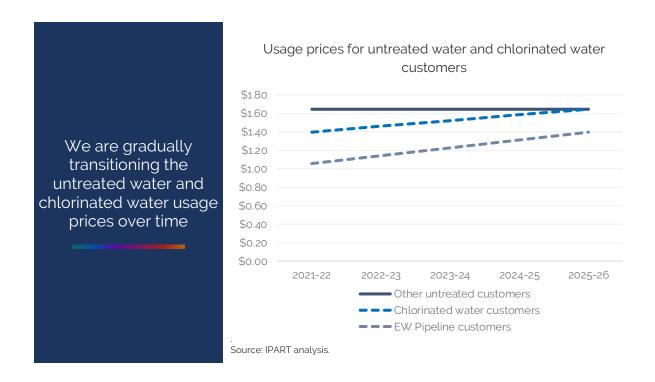
To manage the bill impacts for these customers, we have made the price transition gradual. Over 4 years, water bills for EW Pipeline customers would increase by around 3.3% a year on average, while chlorinated water customer bills would increase by around 2.4% a year on average (in each case, before inflation).

This means that, compared to their current bills, after 4 years the annual bills for:

- EW Pipeline customers would be around \$85 higher.a
- Chlorinated water customers would be around \$75 higher.<sup>b</sup>

<sup>&</sup>lt;sup>a</sup> The water bill estimate is for an EW Pipeline customer with a 20mm meter and 250kL per year water usage.

b The water bill estimate is for a chlorinated water customer with 300kL per year water usage.



# 2.3 We have largely accepted Essential Water's proposals for the pricing of other services and trade waste

We consider most of Essential Water's proposal for the pricing of other services and trade waste is reasonable and in line with our pricing principles. Therefore, we have decided to accept most of Essential Water's proposal for these services. For details please see Chapter 9 of our Draft Technical Report.

### 3 How we determined these draft prices

In making our draft decisions on prices, we:

- considered Essential Water's pricing proposal and the community's feedback on the proposal
- assessed the reasonable costs of providing safe and reliable water and wastewater services in Broken Hill, so that customers pay no more than necessary
- considered the ongoing need for a government subsidy to cover costs of transporting water using the WaterNSW Pipeline and whether there is justification for Essential Water's proposed new affordability subsidy
- assessed forecast demand for Essential Water's water and wastewater services.

The sections below outline each of these steps in more detail.

# 3.1 The community generally opposed price increases and feedback on service quality was mixed

We received 11 submissions to our Issues Paper, outlining Essential Water's pricing proposal. We also met with a number of people to discuss the issues that are important to them for this review.

Most submissions did not support Essential Water's proposed price increases and highlighted affordability concerns for people in the Broken Hill region. People noted the importance of affordable water prices to support general health and wellbeing in the community, particularly to maintain greenspaces and reduce exposure to lead.<sup>3</sup>

Some people also told us that the WaterNSW Pipeline has improved water quality and security for the Broken Hill region. For example:

- Broken Hill City Council and Silverton Village Committee Inc noted that water quality has improved due to the Broken Hill pipeline connection to the Murray River.4
- An individual noted that water security has improved since the construction of the WaterNSW Pipeline.<sup>5</sup>

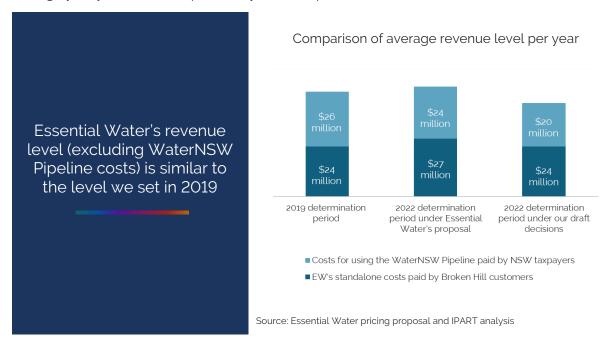
However, Silverton Village Committee Inc and the individual, who receive services outside Broken Hill, expressed dissatisfaction with their water quality due to their local infrastructure. We recognise that providing services to customers in remote areas can be costly and challenging. We encourage Essential Water to engage with its customers on these service quality issues to understand and respond to these concerns.

### 3.2 Essential Water's costs to deliver services are relatively stable

When we set prices for a regulated business like Essential Water, we generally aim to set prices to cover the reasonable costs of providing services to customers. We assessed the costs of providing water and wastewater services in the Broken Hill region and asked expert consultants to provide advice on whether Essential Water's proposed costs are reasonable.

Based on our assessment of Essential Water's costs, our draft decision is to set the amount of revenue Essential Water needs to provide services at around \$44 million on average per year, over the next 4 years. This is around 15% lower than Essential Water's proposed revenue level.

Excluding the costs of transporting water through the WaterNSW Pipeline, Essential Water proposed that its revenue level should increase from around \$24 million per year to around \$27 million per year. Our draft decision is that the revenue level would remain stable at around \$24 million per year (similar to the revenue level we set in the 2019 review, when compared on an average yearly basis). This explains why our draft prices are stable, before inflation.



There are 3 main reasons for the difference between the Essential Water's proposed revenue level and the draft revenue level we have set:

- 1. We found some opportunities for Essential Water to lower its operating costs and have set the revenue level to reflect these opportunities.
- 2. We expect Essential Water to become more productive over time and have applied a continuing efficiency target to both operating and capital costs. This target is based on long term trends in productivity across the whole economy.
- 3. The rate of return to finance Essential Water's operations has declined since our last review of prices in 2019.

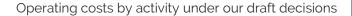
The sections below discuss each of these reasons in more detail.

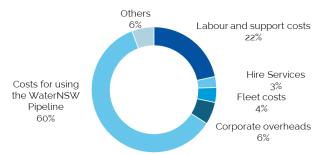
# 3.2.1 We found opportunities to reduce Essential Water's proposed operating costs

Like most water utilities, operating costs make up around 40% of the costs Essential Water incurs in running its water and wastewater services. Essential Water incurs 2 types of operating costs:

- its own day-to-day costs like staff wages, electricity and contractors, which are recovered through prices that customers pay
- costs to transport water using the WaterNSW Pipeline, which are currently covered by a subsidy from the NSW Government.

Our draft decision is to set prices based on operating costs of around \$34 million on average per year over the 2022 determination period. Under our draft decisions, Essential Water would spend around \$13.5 million on its day-to-day costs and \$20.5 million for water transportation costs. Water transportation costs make up around 60% of Essential Water's overall costs (shown below). We assume these costs are subsidised by the NSW Government over the next 4 years, which is discussed further in section 3.3.





Note: Figures may not add up to 100% due to rounding. Source: IPART analysis.

We reviewed operating costs to ensure we allow only those costs needed to deliver the water services customers need and expect

Under our draft decisions, Essential Water's day-to-day costs are around 7% higher than what we used to set prices in our last review in 2019, but 9% lower than Essential Water's proposal. We have set costs lower than Essential Water's proposal based on advice from expert cost consultants (AECOM) who found opportunities for Essential Water to reduce its costs. AECOM reviewed Essential Water's proposal and compared it to the least cost necessary to ensure water and wastewater services in Broken Hill are secure, safe and reliable.

Under our draft decisions, we have also put in place a continuing efficiency target over the next 4 years. This encourages Essential Water to become more productive over time and reduce its operating costs accordingly.

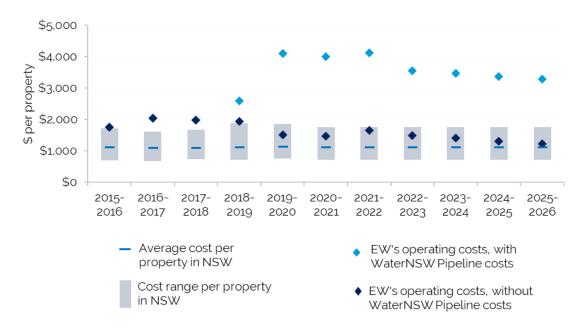
To sense-check our draft decisions, we compared Essential Water's operating costs under our draft decisions against other water utilities in NSW. Figure 3.1 compares operating costs on a per property basis across all water utilities in NSW.

Before the WaterNSW Pipeline became operational in 2019, Essential Water's operating costs per property was one of the highest in NSW. This is because Essential Water has a relatively large network of water and wastewater infrastructure that services a small customer base in a remote location. Essential Water's customer base includes a small number of large mines that make up around a third of its total water sales.

Since 2019, Essential Water's day-to-day costs have fallen but are still above the average cost per property in NSW. Because Essential Water now sources most of its water from the WaterNSW Pipeline instead of its own infrastructure, its energy and materials costs have decreased. Over the next 4 years, we expect Essential Water's costs to continue to decrease to a level that is closer to the average in NSW and have set draft prices on this basis. We consider our draft decision on operating costs is reasonable and will give Essential Water enough time to lower its costs while managing the challenges of operating a business in a remote location.

If we include the cost of water transportation, we found that cost per property in the Broken Hill region would still be the highest in NSW. The cost of using the WaterNSW Pipeline is subsidised by the NSW Government and not paid for by customers. The cost of the WaterNSW Pipeline is also reviewed separately and set by IPART.

Figure 3.1 Analysis of our Essential Water's operating costs against other utilities



Note: Over the 2015-16 to 2021-22 period, we used the data reported by Essential Water in its pricing proposal and compared them with Bureau of Meteorology's 2019-20 national performance report for utilities in NSW. Over the 2022 determination period, we used the results of our draft decisions and compared them with 5-year averages using the national performance report. In addition, the cost analysis is undertaken on per property basis, which is different to how we set prices or analyse bill impacts. Source: IPART analysis and Bureau of Meteorology's 2019-20 national performance report.

Under our draft decisions, Essential Water would have time to lower its costs while managing the challenges of operating a business in a remote location in NSW.

# 3.2.2 We consider most of Essential Water's proposed capital costs are reasonable

Capital costs are required to buy or build new infrastructure and equipment. Essential Water's proposed capital costs over the next 4 years reflect a range of projects to upgrade its ageing infrastructure, including the Wills Street wastewater treatment plant and its water and sewer reticulation network.

We have reviewed Essential Water's capital costs to ensure they are adequate to maintain and improve infrastructure, but also no higher than necessary. We have largely accepted Essential Water's proposed capital costs but have made some reductions to reflect opportunities for Essential Water to be more productive over time. Our draft decision is to set prices based on capital costs that are slightly lower than the level we used to set prices for Essential Water in our last review in 2019.°

More information on our review of Essential Water's costs is available in our Draft Technical Paper and our consultants' report.

### 3.2.3 Essential Water's financing costs have decreased since our last review

Like many businesses, Essential Water needs to finance its water and wastewater operations so it can continue to provide services. Financing costs (or return on assets) make up around 13% of Essential Water's revenue level. When setting prices, IPART makes an allowance using a standard method to cover these financing costs, which we call the rate of return. Generally, a higher financing rate (or rate of return) leads to higher prices.

Essential Water proposed a rate of return of 3.7%, which is slightly lower than the rate of return used to set prices in 2019 (4.0%).<sup>6</sup> Essential proposed a change to the way inflation expectations are factored into the calculation of the rate of return. We have decided to maintain our standard method and have set the draft rate of return at 2.9%.

More information on how we set the rate of return, also known as the Weighted Average Cost of Capital, is available in Appendix D of our Draft Technical Paper.

# 3.3 Our draft prices assume the existing WaterNSW Pipeline Government subsidy will continue

When we set prices for Essential Water in 2019, the NSW Government committed to subsidising Essential Water's prices for 4 years, so prices would not increase as a result of the WaterNSW Pipeline.

-

We set an average annual allowance of around \$19 million over 2019 determination period. This compares to a draft annual average allowance of around \$17 million over 2022 determination period, expressed in \$2021-22.



Each year, it costs Essential Water around \$4,100 per customer to provide water and wastewater services. On average, customers contribute around \$2,200 to these costs. The rest is paid by the NSW Government through a subsidy to cover the cost of the WaterNSW Pipeline.

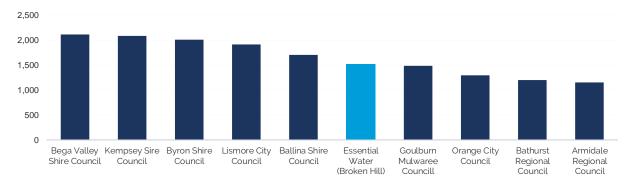
Our draft prices assume the existing WaterNSW Pipeline subsidy will continue for the next 4 years. If this subsidy did not continue, bills would increase substantially. We assume the NSW Government will confirm whether the WaterNSW Pipeline subsidy will continue before our Final Report is complete.

Essential Water proposed an additional affordability subsidy to cover some of Essential Water's costs, as well as the existing subsidy which covers the costs of the WaterNSW Pipeline. However, because draft prices will increase by inflation only (which is much less than what was proposed by Essential Water), we consider this additional subsidy is not needed.

We recognise that affordability of water and wastewater services is a key concern for Broken Hill customers. We received submissions from the Broken Hill community about affordability concerns with any potential bill increase, especially for those experiencing socio-economic disadvantage.

Under our draft prices, typical residential water and wastewater bills would continue to represent about 2.5% of the median household income in Broken Hill. When compared with similar utilities, typical bills in Broken Hill are in the middle range of what other households pay in other regional areas

Figure 3.2 Typical household water and wastewater bills in regional NSW areas (\$2022-23)



Source: IPART analysis.

# 3.4 We accepted Essential Water's proposed water and wastewater usage forecasts to set prices

To set prices, we divided Essential Water's costs by the amount of water and wastewater services people in Broken Hill are predicted to use over the next 4 years. Our draft prices are based on Essential Water's forecasts for customer numbers and sales volumes for water and wastewater services, which we consider are reasonable.

#### **Essential Water forecasts:**

- yearly water use volumes for the 2022 determination period to be around 235 kL per household, which is lower than the estimate used in the last review, and reflects recent trends in water use in the Broken Hill region
- the number of residential and non-residential connections to remain relatively stable.

We received a number of submissions to our Issues Paper on water use. For example:

- Public Interest Advocacy Commission, Broken Hill City Council and Regional Development Australia Far West noted that water use would remain low because the community has maintained smart water habits even after water restrictions ended.<sup>7</sup>
- Broken Hill City Council noted that the community would continue to use water to maintain green spaces and remain safe from lead. However, higher water prices would cause the Council to reduce water use.8
- Regional Development Australia Far West expects that water use will increase because of new mining activity expected to start in the next few years. Foundation Broken Hill added that we should forecast growth in the region rather than decline.9

No forecast is likely to be perfect. To reduce the risk that Essential Water will make too much or too little revenue if forecasts turn out to be wrong, we have included a demand volatility adjustment mechanism that helps protect both customers and Essential Water. If the forecast water use volumes we have used to set prices are more than 5% higher or lower than predicted over the next 4 years, we would consider adjusting future prices next time we set prices in 2026. This could mean compensating customers if volumes were higher than forecast (or compensating Essential Water if volumes were lower than forecast).

When we last set prices in 2019, we included this mechanism for the same reason. At the time, we thought people in Broken Hill would use more water once the WaterNSW Pipeline came into use and water restrictions were lifted. In 2019-20 and 2020-21, Essential Water's water sales were around 11% lower than what we predicted. Therefore, when setting prices, we have adjusted Essential Water's revenue for the 2022 determination period to compensate it for some of this lost revenue.

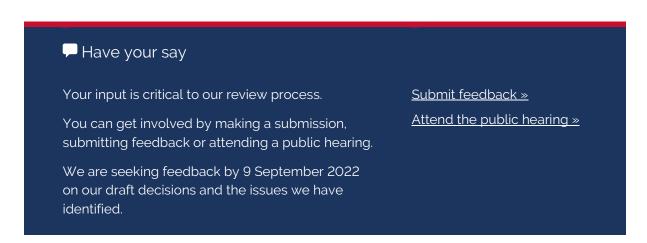
### 4 We value your feedback on our draft decisions

This Draft Report provides a summary of our key decisions and customer outcomes. A complete list of all our draft decisions and draft recommendations is included in our Draft Technical Report, along with detailed analysis and rationale for our draft decisions. We welcome your views on these draft decisions and draft recommendations.

We are seeking submissions to our Draft Customer and Technical Reports from all interested stakeholders by 9 September 2022. We will hold a public hearing on 30 August 2022, which will provide the community with an opportunity to provide feedback and comments on our Draft Report.



In making final decisions and setting prices, we will consider all feedback we receive in response to this Draft Report (including the Draft Technical Paper) and at our public hearing.



<sup>2</sup> Essential Water, Essential Water Pricing Proposal, June 2021, p 17.

Essential Water, Essential Water Pricing Proposal, June 2021, pp 78-79.

- PIAC, submission to IPART's Issues Paper for the 2021 Review of Essential Energy's water and wastewater prices for Broken Hill, October 2021, p 8; Broken Hill City Council, submission to IPART's Issues Paper for 2021 Review of WaterNSW's Murray River to Broken Hill Pipeline prices, October 2021, pp 7-8; Regional Development Australia Far West, submission to IPART's Issues Paper for 2021 Review of WaterNSW's Murray River to Broken Hill Pipeline prices, October 2021, p 6.
- <sup>8</sup> Broken Hill City Council, submission to IPART's Issues Paper for 2021 Review of WaterNSW's Murray River to Broken Hill Pipeline prices, October 2021, p 8.
- <sup>9</sup> Foundation Broken Hill, submission to IPART's Issues Paper for 2021 Review of WaterNSW's Murray River to Broken Hill Pipeline prices, October 2021, pp 2-3; Regional Development Australia Far West, submission to IPART's Issues Paper for 2021 Review of WaterNSW's Murray River to Broken Hill Pipeline prices, October 2021, p 8.
- IPART, Review of Essential Energy's prices for water and sewerage services in Broken Hill, May 2019, Table 7.1 p 92; Essential Water's AIRSIR submissions.

<sup>&</sup>lt;sup>1</sup> Broken Hill City Council, submission to IPART's Issues Paper for 2021 Review of WaterNSW's Murray River to Broken Hill Pipeline prices, October 2021, p 6.

Broken Hill City Council, submission to IPART's Issues Paper for 2021 Review of WaterNSW's Murray River to Broken Hill Pipeline prices, October 2021, pp 7-8.

Broken Hill City Council, submission to IPART's Issues Paper for 2021 Review of WaterNSW's Murray River to Broken Hill Pipeline prices, October 2021, p 6.

<sup>&</sup>lt;sup>5</sup> L Nadge, submission to IPART's Issues Paper for 2021 Review of WaterNSW's Murray River to Broken Hill Pipeline prices, October 2021, p 28.

© Independent Pricing and Regulatory Tribunal (2022).

- With the exception of any:
  a. coat of arms, logo, trade mark or other branding;
- photographs, icons or other images; third party intellectual property; and b.
- personal information such as photos of people,

 $this\ publication\ is\ licensed\ under\ the\ Creative\ Commons\ Attribution-NonCommercial-NoDerivs\ 3.0\ Australia\ Licence.$ 



The licence terms are available at the Creative Commons website

IPART requires that it be attributed as creator of the licensed material in the following manner: © Independent Pricing and Regulatory Tribunal (2022).

The use of any material from this publication in a way not permitted by the above licence or otherwise allowed under the above licence or otherwise allowed under the properties of the control of theCopyright Act 1968 (Cth) may be an infringement of copyright. Where you wish to use the material in a way that is not permitted, you must lodge a request for further authorisation with IPART.

This document is published for the purpose of IPART fulfilling its statutory or delegated functions as set out in this document. Use of the information in this document for any other purpose is at the user's own risk, and is not endorsed by

Nothing in this document should be taken to indicate IPART's or the NSW Government's commitment to a particular course of action.

ISBN 978-1-76049-579-4