



Review of WaterNSW's prices for the  
Murray River to Broken Hill Pipeline

# Final Report

November 2022

Water >>



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## **Tribunal Members**

The Tribunal members for this review are:

Carmel Donnelly PSM, 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 included: Eva McBride, Bee Thompson, Milo Letho and Adrian Thomas

## **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.

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# 1 Water transportation prices to decrease

We have set prices that WaterNSW can charge customers for water transportation services provided by the Murray River to Broken Hill pipeline (the WaterNSW Pipeline). These prices will apply from 1 January 2023 until 30 June 2026 to WaterNSW's 2 customer groups:

- Essential Water, the supplier of water and wastewater services to customers in the Broken Hill region
- a small number of offtake customers located along the WaterNSW Pipeline.

We last set prices for these services in 2019, shortly after the WaterNSW Pipeline was built. Since then, the WaterNSW Pipeline has secured water supply in the Broken Hill region, which is critical given its arid climate, history of drought and need to manage elevated levels of lead in the environment.

Under our prices over the next 4 years, bills would decrease for Essential Water by around 21% and offtake customers by around 16%, before inflation. To set these prices, we considered the reasonable:

- ongoing costs of running the WaterNSW Pipeline
- financing costs of the WaterNSW Pipeline
- the number of customers who will share these costs and the amount of water the WaterNSW Pipeline is expected to transport for its customers over the next 4 years.

We looked at the money WaterNSW spent over the last 3 years, as well as the money WaterNSW proposes to spend over the next 4 years. Our decision is to accept most of what WaterNSW has proposed, but also to make some adjustments in areas where we think it is achievable for the WaterNSW Pipeline to provide better value for money. We have also decided to set a lower rate of return for the WaterNSW Pipeline, based on our standard approach.

We looked at the volume of water the WaterNSW Pipeline would transport over the next 4 years and found that WaterNSW's expectations are broadly reasonable. This means the WaterNSW Pipeline would be used to meet almost all of the water needs of the Broken Hill region.

This Final Report provides a summary of our key decisions and customer outcomes. We have prepared a [Final Technical Report](#), which provides full details of our analysis, full list of our decisions and reasons for them.

The scope of our review is limited to the prices that WaterNSW can charge for services provided by the WaterNSW Pipeline. Maximum prices for the bulk water, water management services, and water and wastewater services to customers in Broken Hill are set by IPART under separate reviews. Our [review of Essential Water's prices](#) has taken account of the NSW Government's decision to continue to subsidise the costs of the WaterNSW Pipeline.<sup>1</sup>

## 2 Our decisions on prices and bills

The WaterNSW Pipeline consists of a 270km subterranean pipeline, pumping stations and bulk water storage facility for transporting, storing and delivering bulk water from the Murray River at Wentworth to Broken Hill and surrounding communities (shown below).

Figure 2.1 The WaterNSW Pipeline transports water from the Murray River to Broken Hill



Source: Adapted from Water NSW schematic of the Broken Hill Pipeline, see [Pricing proposal by Water NSW – Plain English Summary - June 2021](#)

In 2016 and 2017, the NSW Government directed WaterNSW to construct, operate and maintain the WaterNSW Pipeline. This was to secure the long-term water supply for Essential Water, which provides water and wastewater services in Broken Hill and its surrounds. In addition to transporting water for Essential Water, the WaterNSW Pipeline also transports water to a small number of offtake customers located along the pipeline.

The sections below summarise our decisions on prices for water transportation services provided by the WaterNSW Pipeline.

## 2.1 Water transportation bills for Essential Water would decrease

We maintained the current price structure of splitting prices between a variable usage price and a fixed access price. Under our decisions, the usage price for Essential Water will increase and the access price will decrease (as shown in Table 2.1). The usage price is increasing because WaterNSW's energy costs have increased, while the access price is decreasing due to WaterNSW's lower financing costs. In Chapter 3 of this Final Report, we discuss our approach to setting costs for the WaterNSW Pipeline over the next 4 years.

Table 2.1 Prices for Essential Water (\$2021-22) - without inflation

	2021-22	2022-23	2023-24	2024-25	2025-26	Change 2021-22 to 2025-26
Usage price, \$ per ML	212.52	499.14	403.39	350.46	351.20	65.3%
Access price, \$ per day	67,281	50,798	50,798	50,798	50,798	-24.5%

Note: the usage price for Essential Water includes an allowance for evaporative issues.  
Source: IPART analysis, WaterNSW, [Pricing Proposal to IPART](#), June 2021, p 76.

Under our decisions, Essential Water's yearly bills to transport water through the WaterNSW Pipeline would decrease by around 21% (before inflation) compared to current bills. Essential Water's bills would then remain mostly stable over the next 3 years (shown in Table 2.2). Prices and bills for Essential Water are currently covered by a subsidy paid by the NSW Government on behalf of NSW taxpayers. This is discussed in more detail in our concurrent [review of prices that Essential Water can charge for water and wastewater services in Broken Hill](#).

Table 2.2 Bills for Essential Water (\$2021-22) - without inflation

	2021-22 (current)	2022-23 <sup>a</sup>	2023-24 <sup>b</sup>	2024-25	2025-26	Change 2021-22 to 2025-26
Usage bill	1,189	1,968	2,230	1,929	1,926	61.9%
Access price bill	24,558	21,574	18,592	18,541	18,541	-24.5%
<b>Total bill</b>	<b>25,747</b>	<b>23,542</b>	<b>20,822</b>	<b>20,471</b>	<b>20,467</b>	<b>-20.5%</b>

a. We have delayed the commencement of new prices until 1 January 2023, therefore the access price component of the total bill will be higher in 2022-23 due to prices from the 2019 determination continuing for an extra 6 months. However, we have decreased the access price further in subsequent years to compensate for this.

b. The access price component of the bill will increase in 2023-24 because it will be a leap year.

Source: IPART analysis.

Each year, we adjust WaterNSW's prices for inflation. When inflation is included, prices would still decrease, but at a lower rate. We will continue to adjust prices for inflation every year until 30 June 2026, as future inflation information becomes available.

Taking inflation of 5.1% into account, Essential Water would pay an annual bill of around \$24 million under our prices in 2022-23.

## 2.2 Water transportation bills for offtake customers would also decrease

Similar to how we set prices for Essential Water, we maintained the current price structures for offtake customers. Under our decisions, the usage price for offtake customers will increase, while the fixed price will decrease (see Table 2.3). As outlined in section 2.1, this is due to WaterNSW’s higher energy costs (increasing the usage price) and lower financing costs (decreasing the fixed price).

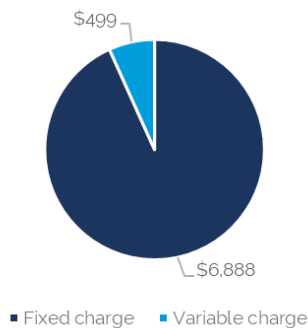
Table 2.3 Prices for offtake customers (\$2021-22, without inflation)

	2021-22	2022-23	2023-24	2024-25	2025-26	Change 2021-22 to 2025-26
Usage price, \$ per kL	0.21	0.50	0.40	0.35	0.35	65.3%
Fixed price, \$ per day	20.78	16.93	16.93	16.93	16.93	-18.5%

Note: Due to rounding, the usage price appears flat.  
 Source: IPART analysis, WaterNSW, [Pricing Proposal to IPART](#), June 2021, p 78.

Total bills will decrease over the determination period. This is because the increase in the usage price is more than offset by the decrease in the fixed price, which represents a larger share of bills.

Medium customer bills in 2022-23



The fixed price part of the bill is larger than the usage price part

Under our decisions, yearly bills for a medium-sized offtake customer would decrease by around 16% (before inflation) by the end of the 2022 determination period compared to current bills (see Table 2.4).

Table 2.4 Bills for offtake customers (\$2021-22, without inflation)

	2021-22 (current)	2022-23 <sup>a</sup>	2023-24 <sup>b</sup>	2024-25	2025-26	Change 2021-22 to 2025-26
Small customers (0.5 ML)	7,691	7,138	6,398	6,355	6,355	-17.4%
Medium customers (1 ML)	7,797	7,387	6,600	6,530	6,531	-16.2%
Large customers (5 ML)	8,647	9,384	8,214	7,932	7,936	-8.2%

a. We have delayed the commencement of new prices until 1 January 2023, therefore the fixed price component of the total bill will be higher in 2022-23 due to prices from the 2019 determination continuing for an extra 6 months. However, we have decreased the fixed price further in subsequent years to compensate for this. For large offtake customers, the combined effect of the delay and increase in the usage price will result in higher bills for the first year before bills reduce to levels below the current level in the subsequent years of the determination period.

b. The access price component of the bill will increase in 2023-24 because it will be a leap year.

Source: IPART analysis

Taking inflation of 5.1% into account, medium-sized offtake customers would pay an annual bill of \$7,568 under our prices in 2022-23.

## 2.3 New prices will commence on 1 January 2023

As previously announced on our website, we delayed the commencement of new prices until 1 January 2023.<sup>a</sup> The prices we present in this report will apply from 1 January 2023 to 30 June 2026, which is a 3.5 year period.

Our view is that both utilities and customers should be no better or worse off as a result of the 6-month delay. Therefore, in setting prices for this review, we have factored in:

- the final WACC that would have applied had we set prices from 1 July 2022
- the latest available energy cost forecasts
- an adjustment for foregone inflation in the period from 1 July 2022 to 31 December 2022
- an adjustment to reflect that WaterNSW will be over-recovering its revenue requirement for the period from 1 July 2022 to 31 December 2022 (as bills based on current prices are higher than bills based on the prices we present in this report).

For details please see Chapter 5 of our [Final Technical Report](#).

<sup>a</sup> In February 2022, we decided to delay the introduction of new prices from 1 July 2022 to 1 January 2023 due to the impacts of the Covid-19 pandemic.



## 3 How we determined these prices

In making our decisions on prices, we:

- considered WaterNSW's pricing proposal for the WaterNSW Pipeline and the community's feedback on the proposal, as well as our draft prices
- assessed the reasonable costs of providing reliable water transportation services to in Broken Hill, so that customers pay no more than necessary
- assessed the forecast demand for the WaterNSW Pipeline's services and how it could affect future prices.

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

### 3.1 A small group of stakeholders provided feedback on WaterNSW's prices

During our review, we sought community feedback on multiple occasions, and we have taken this into account in our final decisions. Sometimes we have had to balance conflicting views from stakeholders as well as our requirement to ensure that WaterNSW receives sufficient funds to provide the level of service expected by the community.

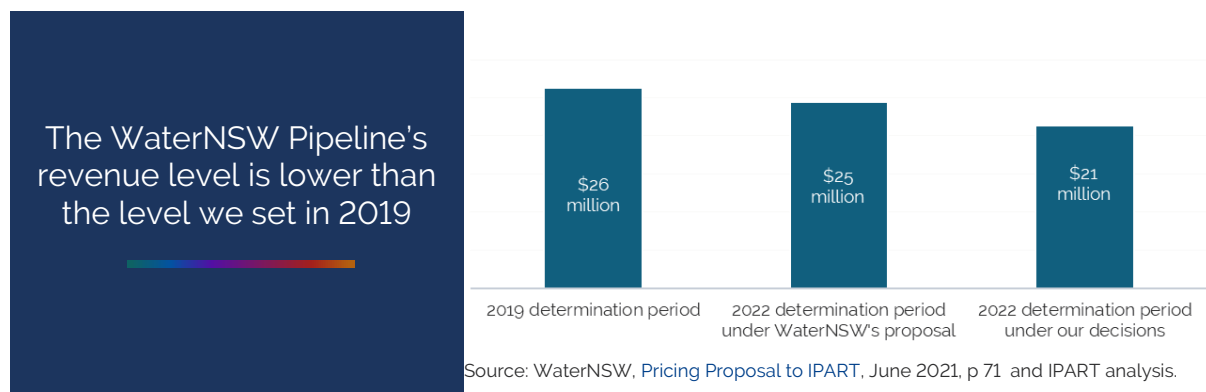
We received submissions from 4 different stakeholders over the course of the review. They covered a range of issues, for example:

- Broken Hill City Council supported IPART's draft decisions that would lead to Essential Water paying lower water transportation bills.<sup>2</sup>
- Essential Water supported the proposed decrease to prices it pays to transport water via the WaterNSW Pipeline, as WaterNSW Pipeline costs are the largest component of its operating costs.<sup>3</sup>
- PIAC raised concerns about whether existing pricing arrangements for the WaterNSW Pipeline encourage water users to conserve and use water in the most efficient way. PIAC considers the proposed prices do not provide Essential Water and other large users with enough incentive for sustainable water use.<sup>4</sup>
- WaterNSW's submissions to our Issues Paper and Draft Report were focused on operating costs, forecast sales volumes and risk allocation. WaterNSW proposed higher operating costs to cover its corporate overheads allocated to the WaterNSW Pipeline. It also proposed to set forecast sales volume to meet most of water needs in Broken Hill. In addition, WaterNSW proposed to pass on some cost changes to customers if certain external events occur. These proposals are in line with WaterNSW's original pricing proposal.<sup>5</sup>

### 3.2 Costs to deliver reliable water transportation services in Broken Hill would decrease

When we set prices for a regulated business like WaterNSW, we generally aim to set prices to cover the reasonable costs of providing services to customers. We assessed the costs of providing water transportation services to Essential Water and its offtake customers. We engaged expert consultants to provide advice on whether WaterNSW's proposed costs for the WaterNSW Pipeline are reasonable.

Based on our assessment of the WaterNSW Pipeline's costs, our decision is to set the amount of revenue WaterNSW can recover through prices at around \$21 million on average per year, over the next 4 years. Our decision on the revenue level is around 13% lower than WaterNSW's proposed revenue level for the WaterNSW Pipeline, and 19% lower than the revenue level we set in the 2019 review, when compared on an average yearly basis.



There are 2 main reasons for the difference between WaterNSW's proposal and the revenue level we have set:

1. Our final decision on the rate of return to finance the WaterNSW Pipeline is materially lower than proposed by WaterNSW. Under our final decision, financing cost accounts for around 52% of WaterNSW's annual revenue requirement
2. The lower financing cost is partially offset by a higher operating cost allowance. While we found some opportunities for WaterNSW to lower the operating costs of the Pipeline, significant increases in energy prices has resulted in an operating allowance slightly higher than originally proposed by WaterNSW.

Our final decision to set the revenue level at around \$21 million per year is about the same as the revenue allowance in our draft decision. As above, the overall revenue requirement remains largely unchanged because the reduction in the rate of return and financing costs has been offset by a large increase in energy prices.

### 3.2.1 The WaterNSW Pipeline's financing costs have decreased since our last review

In 2019, WaterNSW had to raise a significant amount of money to finance the construction of the WaterNSW Pipeline. Financing costs (or rate of return) are ongoing and make up around 52% of the WaterNSW Pipeline's revenue level under our decision. When setting prices, IPART makes an allowance using a standard method to cover these financing costs. Generally, a higher rate of return leads to higher prices.

WaterNSW proposed a rate of return of 3.7% for the WaterNSW Pipeline, which is slightly lower than the rate of return used to set prices in 2019 (4.0%). WaterNSW 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 rate of return at 2.8%. Our final decision is slightly lower than our draft decision of 2.9%, due to us using more up-to-date market information.

The lower rate of return is due to the relatively low current interest rate environment. Should interest rates increase or decrease over the 2022 determination period, the net changes would be factored in prices at the next determination. This is because under our standard method, we have a mechanism that adjusts the rate of return each year to account for changes in interest rates. This helps protect customers and WaterNSW by ensuring that the rate of return reflects new information.

More information on how we set the rate of return, or the Weighted Average Cost of Capital (WACC), is available in Appendix B of our [Final Technical Report](#).

### 3.2.2 The operating cost allowance is 17% higher than proposed due to increasing energy prices

Operating costs represent about 24% of the WaterNSW Pipeline's required revenue level over the next 4 years. The WaterNSW Pipeline incurs 2 types of operating costs:

- energy costs for transporting water from Murray River to Broken Hill
- other costs, like contractors, corporate overheads and cost of preparing regulatory submissions.

Our final decision is to set prices based on operating costs of around \$5.2 million on average per year over the 2022 determination period. We have set operating costs higher than WaterNSW's proposal based on advice from expert cost consultants (AECOM and the CIE). This advice was supported by our own further analysis using data provided by WaterNSW.

Under our decisions, we set an allowance for energy costs at around \$2.2 million per year on average. This is approximately \$0.7m per year higher than originally proposed by WaterNSW, and mainly reflects a significant increase in energy prices since WaterNSW submitted its pricing proposal in June 2021. Energy costs vary depending on the energy demand of the WaterNSW Pipeline and what the energy price is at the time. Our approach to forecasting energy costs is largely consistent with the approach we adopted in our 2019 review, but has been updated take into account feedback from WaterNSW and data on actual energy use since the Pipeline became operational in 2019. The energy forecast also reflects updated demand forecast and a forecast of energy prices as of September 2022. More information on how we forecast energy costs for the Pipeline is available in Chapter 3 of our [Final Technical Report](#) and consultants' report on our [website](#).

WaterNSW also proposed to introduce an energy cost adjustment mechanism that helps protect both customers and WaterNSW if energy prices turn out to be materially different from those forecast and reflected in our decisions. Under this mechanism, actual energy prices over the 2022 determination period would be monitored, and at the next price review, customers would be compensated if energy prices were lower than forecast, while WaterNSW would be compensated if energy prices were higher than forecast

We agree in principle with an energy cost adjustment mechanism, such as that proposed by WaterNSW, given: (a) the materiality of energy costs for operating the Pipeline; (b) the considerable uncertainty around forecast energy prices in the current market; and (c) the inability for WaterNSW to influence prices. However, we are not satisfied that WaterNSW's proposed energy cost adjustment mechanism appropriately allocates risk between WaterNSW and its customers. Instead, we invite WaterNSW to work with us prior to its next submission to develop an energy cost adjustment mechanism that appropriately balances energy cost risk between WaterNSW and its customers, with the intent that this mechanism would apply to energy costs over the 2022 Determination period.

Our final decision is to set other (non-energy) operating costs at around \$2.9 million per year for the WaterNSW Pipeline. This is around 23% higher than what we used to set prices in our last review in 2019, but lower than the level proposed by WaterNSW. When compared with costs set in our 2019 review, the difference is driven by our decision on corporate overheads. We have taken this review as an opportunity to make sure the way we set corporate overheads for the WaterNSW Pipeline lines up with how we set them for other parts of WaterNSW.<sup>b</sup>

Our decision to set the operating cost allowance at around \$5.2 million per year is higher than our draft decision by about \$1.1 million or 28%. As noted earlier, the main driver of this increase in operating costs is significantly higher energy prices.

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<sup>b</sup> WaterNSW provides bulk water supply in Greater Sydney and rural areas in NSW, water transportation services in Broken Hill and also part of being part of the Water Administration Ministerial Corporation.

### 3.3 The WaterNSW Pipeline will continue to be used to meet almost all of Broken Hill's water demand

To set prices, we divided the WaterNSW Pipeline's reasonable costs by customer types and amount of water we expect it to transport over the next 4 years. Our prices are closely aligned with WaterNSW's forecasts for customer numbers and sales volumes, which we consider are reasonable.

Both WaterNSW and Essential Water expect the WaterNSW Pipeline will be used to transport water to meet almost 100% of the Broken Hill community's water needs. This is different to what we expected in our 2019 review. At the time, we estimated Essential Water would use the WaterNSW Pipeline to meet 70% of the community's water needs.

For the 2022 determination period, our decision is to set the WaterNSW Pipeline's annual forecast water sales volumes to Essential Water at around 5,500 ML per year. Based on evidence provided, we agree with WaterNSW and Essential Water that it is efficient to use the WaterNSW Pipeline to meet almost all of the water needs of Broken Hill. This decision is consistent with our draft decision.



PIAC raised concerns about whether the prices we set for the WaterNSW Pipeline would encourage sustainable use of water in Broken Hill. The prices we have set reflect the reasonable cost of providing water transportation service in Broken Hill. We also considered setting further incentives to reduce water use. However we concluded they were not warranted given the arid climate and the need to use water to maintain greenspaces and reduce exposure to lead in Broken Hill. WaterNSW's customers (Essential Water and offtake customers) secure access to water by having licences that entitle them to access water for town water supply, similar to any other water service providers in NSW. Essential Water can also manage the community's water use during drought periods through water restrictions.

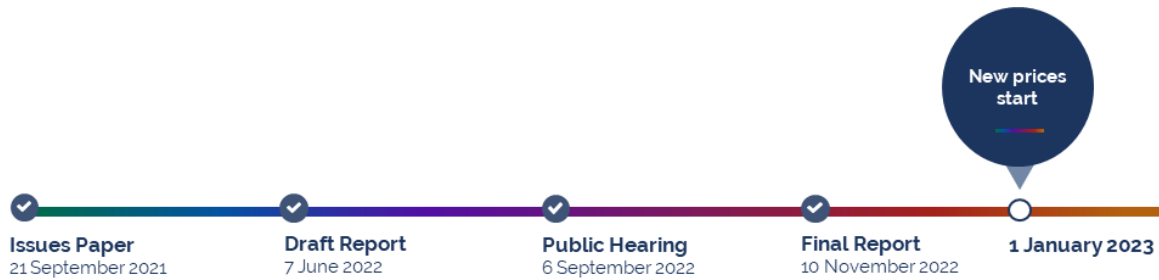
## 4 We consulted extensively with stakeholders

Our review started on 30 June 2021 when WaterNSW submitted its pricing proposal to us. We consulted with the community and other stakeholders, including publishing an Issues Paper and a Draft Report to which we sought feedback and submissions. In September 2022, we also held an in-person public hearing at a local venue in Broken Hill and other stakeholders joined the hearing online (see Figure 4.1).

We took all community views into account in making our final decisions. The pricing proposal from WaterNSW, our Issues Paper, Draft Report, Draft Technical Report, stakeholder submissions and the public hearing transcript and video are available on our [website](#).

Our decisions and recommendations are listed and explained in our [Final Technical Report](#).

Figure 4.1 Timetable for this review



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- <sup>1</sup> Department of Planning and Environment, [Letter on the Subsidy for the WaterNSW Pipeline](#), August 2022, p 1.
  - <sup>2</sup> Broken Hill City Council, [submission to IPART's Draft Report for the Review of Essential Water's prices for water and wastewater services in Broken Hill from 1 January 2023](#), September 2022, p 3;
  - <sup>3</sup> Essential Water, [submission to IPART's Issues Paper for the 2021 Review of Essential Energy's water and wastewater prices for Broken Hill](#), October 2021, p 1.
  - <sup>4</sup> Public Interest Advocacy Centre, [submission to IPART's Issues Paper for the 2021 Review of Essential Energy's water and wastewater prices for Broken Hill](#), October 2021, p 5.
  - <sup>5</sup> WaterNSW, [submission to IPART's Issues Paper for 2021 Review of WaterNSW's Murray River to Broken Hill Pipeline prices](#), October 2021, pp 4-6.

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