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Review of new customer contribution- related capital expenditure for Lower Murray Water

2023 Water Price Review

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1 INTRODUCTION

1.1 Purpose of this report

The Essential Services Commission (the Commission) is reviewing submissions from 14 Victorian water businesses setting out their proposed prices, revenue requirement and key service outcomes to apply to water and sewerage services commencing on 1 July 2023 through to 30 June 2028 (the PS5 regulatory period). Each of the Victorian water businesses submitted their proposals to the Commission for assessment on 30 September 2022.

FTI Consulting has been engaged to provide advice on whether the water business' capital expenditure included in the calculation of new customer contributions for Central Highlands Water, Coliban Water, Goulburn Valley Water, Lower Murray Water, South East Water, South Gippsland Water and Yarra Valley Water is reasonable. The commission has indicated that four water businesses have included historical capital expenditure (sunk costs) in their proposed new customer contributions¹, while three water businesses proposed significant increases in their new customer contributions² in the 2023-28 regulatory period compared to 2022-23.

This report sets out our independent expert view of the reasonableness of the capital expenditure included in the new customer contributions for Lower Murray Water. We have prepared a separate report for each water business.

1.2 Water industry regulatory framework

The water businesses' proposals are being assessed against a legal framework set out in the *Water Industry Regulatory Order 2014* (WIRO)³ and the Commission's PREMO framework for approving prices.⁴

The commission is required to assess each water corporations price submission in a manner consistent with the requirements of the regulatory framework, which places an emphasis on efficient delivery of services by water corporations. The assessment of the new customer contributions proposed by water corporation's plays an important role in achieving this objective.

¹ Lower Murray Water, South East Water, South Gippsland Water and Yarra Valley Water.

² Central Highlands Water, Coliban Water and Goulburn Valley Water.

³ The Water Industry Regulatory Order 2014 (WIRO) sits within the broader context of the *Water Industry Act 1994* (Vic) and the *Essential Services Commission Act 2001* (Vic).

⁴ Essential Services Commission 2016, Water Pricing Framework and Approach: Implementing PREMO from 2018, October.

1.3 Methodology and approach

Our methodology for assessing the capital expenditure included in proposed new customer contributions for the next regulatory period is consistent with guidance provided by the Commission.⁵ In summary, the scope of our review includes:

- whether the capital expenditure included in the new customer contributions relates to growth and the basis of the cost estimate is reasonable
- whether the methodology used is reasonable for apportioning capital expenditure that serves multiple purposes
- the relative merits of the proposed infrastructure and related capital expenditure in serving specific catchments versus a broader area
- the reasonableness of the incremental operating costs (and their relationship to growth)
- any historical capital expenditure included.

Our process has involved several steps:

- an initial review of PS5 price submissions, new customer contribution models, financial model templates and associated documentation provided by water businesses
- a high-level desktop review of the methodology used by each water corporation to assign capital expenditure, including sunk costs, to new customer contributions
- visits and/or online discussions with each of the water businesses on key issues related to their proposal
- further review and analysis of further information or explanations provided.

⁵ Essential Services Commission 2021, 2023 water price review: Guidance paper, 26 October, page 59.

2 SUMMARY OF BUSINESSES' PROPOSALS

2.1 Proposed new customer contributions

Water businesses are proposing the following new customer contributions for the forthcoming regulatory period (see Table 2.1). Most of the water businesses have proposed significant increases for new customer contributions in the forthcoming regulatory period, with Lower Murray Water and South Gippsland Water proposing more modest increases. Central Highlands Water, Coliban Water, South East Water and Yarra Valley Water are all proposing new customer contributions that are less than what has been calculated using their new customer contribution models.

Table 2.1: Proposed new customer contributions

Water business	Current NCC	Proposed NCC in year 1 of PS5	Proposed NCC in year 5 of PS5	Model calculated NCC
Central Highlands Water	Water: \$1,504 Sewer: \$0	Water: \$1,300 – 3,000 Sewer: \$1,300 – 3,000	Water: \$2,626 – 4,121 Sewer: \$2,626 – 4,121	Water: \$4,602 – 11,573 Sewer: \$5,287 – 7,210
Coliban Water	Water: \$1,790 Sewer: \$1,790 Recycled: \$895	Water: \$2,148 Sewer: \$2,148 Recycled: \$1,074	Water: \$3,144 Sewer: \$4,453 Recycled: \$1,572	Water: \$3,964 Sewer: \$4,841 Recycled: \$1,476
Goulburn Valley Water	Water: \$2,891 Sewer: \$0	Water: \$3,700 Sewer: \$1,700	Water: \$3,700 Sewer: \$1,700	Water: \$3,702 Sewer: \$1,707
Lower Murray Water	Water: \$2,076 – 4,152 Sewer: \$1,420 – 2,839	Water: \$2,482 – 4,963 Sewer: \$1,429 – 2,857	Water: \$2,482 – 4,963 Sewer: \$1,429 – 2,857	Water: \$4,963 Sewer: \$2,857
South East Water	Water: \$775 – 1,711 Sewer: \$775 – 1,224 Recycled: \$775 – 1,903	Water: \$813 Sewer: \$813 – 1,670 Recycled: \$813 – 2,595	Water: \$988 Sewer: \$988 – 2,030 Recycled: \$988 – 3,154	Water: (\$3,391.87) – (\$103.63) Sewer: (\$1,661.56) – 8,749.78 Recycled: \$6,416.65 – 17,472.93
South Gippsland Water	Water: \$2,518 Sewer: \$2,518	Water: \$2,971 Sewer: \$2,971	Water: \$2,971 Sewer: \$2,971	Water & Sewer: \$5,944
Yarra Valley Water	Water: \$775 – 2,776 Sewer: \$775 – 2,776 Recycled: \$775	Water: \$814 – 2,915 Sewer: \$814 – 2,915 Recycled: \$814	Water: \$989 – 3,543 Sewer: \$989 – 3,543 Recycled: \$814 - 989	Water: \$1969 – 11,815 Sewer: \$3,608 – 11,517 Recycled: \$5,927 – 16,535

2.2 Forecast capital expenditure

Water businesses have included a total of \$9.4 billion in capital expenditure in their new customer contribution models. Most of this spend is for assets that will exclusively service new customers, however, there is a substantial amount of capital expenditure that has multiple drivers and will service both new and existing customers. Water businesses have proposed to allocate the costs of these assets across both new and existing customers.

2.3 Summary of our assessment

In undertaking our assessment of capital expenditure, we reviewed the information provided by water businesses, including from pricing submissions, new customer contributions models and other information that had been provided to the commission during the price review. We then met with each of the businesses to gain a better understanding of their new customer contributions, and how these had been developed.

During these meetings we requested further information from water businesses that would demonstrate that the capital expenditure included in new customer contributions met the criteria as set out by the commission. Businesses were asked to provide documentation that outlined the methodology and approach used to derive new customer contributions, including how capital expenditure is incorporated into the calculation of charges.

The documentation provided by Central Highlands Water, Coliban Water, Goulburn Valley Water, Lower Murray Water, South East Water, South Gippsland Water and Yarra Valley Water was not sufficient to allow for a complete assessment of capital expenditure. It was apparent that no policy documents had been developed by these seven water businesses prior to submitting their pricing proposals to the commission. What was provided by these water businesses was mainly developed in response to our request for supporting information. None of these water businesses could articulate how it had implemented a pre-determined methodology.

In the absence of clearly articulated policy and methodology documentation, we have had to assess the capital expenditure based on a degree of confidence that it would be appropriate. We have rated this confidence level as either high; medium or low. It is important to note that the degree of confidence refers to our view that all the capital expenditure would be appropriate to include. Capital expenditure that is rated medium would likely result in some, and possibly all, the capital expenditure included in the calculation of new customer contributions, once additional documentation and analysis is provided. Capital expenditure that is rated low may still see some of that expenditure included.

In our review we have determined that we have a high degree of confidence that \$6.0 billion of capital expenditure should be included in new customer contributions, a medium degree of confidence in \$0.2 billion and a low degree of confidence in the remaining \$3.2 billion.

3 LOWER MURRAY WATER

3.1 Proposed NCCs

Lower Murray Water has proposed an increase of nearly 20 per cent for new customer contributions for water, with the current charge of \$2,075.70 increasing to \$2,481.50 for lot sizes less than 750m², and larger increasing from \$4,151.50 to \$4,963. New customer contributions for sewer will see a modest increase, with per lot charges increasing from \$1,419.50 to \$1,428.5 for smaller lots and \$2,839.10 to \$2,857 for larger lots.

Table 3.1: Proposed new customer contributions

	Current NCC	Proposed NCC in year 1 of PS5	Proposed NCC in year 5 of PS5
Water			
0 - 750m ²	\$2,075.70	\$2,481.50	\$2,481.50
>750m ²	\$4,151.50	\$4,963.00	\$4,963.00
Sewer			
0 - 750m ²	\$1,419.50	\$1,428.50	\$1,428.50
>750m ²	\$2,839.10	\$2,857.00	\$2,857.00

3.2 Capital expenditure included in new customer contributions

3.2.1 Methodology and approach

Lower Murray Water provided no details of its methodology used to include capital expenditure in new customer contributions in its pricing submission. It provided some information after we met with staff.

Lower Murray Water has separated its capital expenditure into two categories. First, projects that service an individual growth area only, generally for water and sewer network upgrades in individual development areas. Second, projects that are triggered by growth but provide shared benefit for new and existing customers, a percentage of the capital cost is included in the calculation of new customer contributions.

Lower Murray Water provided no detailed project information in its NCC model. We sought further information that separated capital expenditure by these drivers, which was provided and is summarised in table 3.2.

Table 3.2: Capital expenditure included in new customer contributions allocations

Category	Water	Sewer	Total
Fully allocated to growth			
Network assets	51.2	39.1	90.3
Renewals	3.8	-	3.8
	55.0	39.1	94.2
Growth as shared driver			
Treatment plants	21.4	13.9	35.3
Water purchases	41.6	-	41.6
	63.0	13.9	77.0
Grand total	118.0	53.1	171.1

3.2.2 Fully allocated to growth

Lower Murray Water has included \$94.2 million of capital expenditure in its new customer contributions calculations where growth is identified as the primary driver. This includes projects where the assets are exclusively provided for new customers, such as in greenfield developments of \$90.3m and \$3.8 million in renewal of existing pipes.

3.2.3 Growth as a shared driver

Lower Murray Water has included \$77.0 million capital expenditure in its new customer contributions calculations where growth is a shared driver. Of this expenditure, \$35.3 million is for treatment plants, including \$26.6 million from expenditure in previous regulatory periods and \$8.7 million of forecast expenditure to build a new treatment plant for the Swan Hill region. Lower Murray Water has also allocated \$41.6 million of capital expenditure for purchase of water shares.

Lower Murray Water has apportioned the costs for these projects based on the demand generated by new customers versus existing demand.

3.2.4 Capital expenditure across different regions

Lower Murray Water has included capital expenditure from all its regions. It has proposed a new customer contribution charge that is applied to all new connections.

3.2.5 Incremental operating costs

Lower Murray Water has included incremental operating costs in its calculation of new customer contributions based on the average cost per customer of non-operational costs plus the average operational cost per ML of water delivered.

3.3 Our assessment

In assessing the capital expenditure included in the calculation of new customer contributions we have had regard to the guidance provided by the commission (as outlined in section 1.3). We have also established criteria for assessing how the capital expenditure is apportioned to new customer contributions, particularly where the assets have more than one driver (e.g. an upgrade to a treatment plant that is required to meet compliance requirements but will also cater for future growth in volumes of water treatment). The criteria we have used is as follows:

1. Whether the methodology and approach used to allocate the capital expenditure to new customer contributions is well explained and approved by senior management and the Board
2. Whether there is clear documentation of how the methodology and approach has been applied to establish new customer contributions for this pricing submission
3. Whether the allocator used to apportion capital expenditure is reasonable
4. Whether the allocator value is verifiable

In future assessments we would also consider whether the methodology and approach has been applied consistently from one period to the next, and if there were any changes that they were comprehensively explained.

The commission's guidance requires the capital costs included in new customer contributions should be incremental. This means those costs that are required only because of there being new customers. In a situation where there is more than one driver for capital expenditure, one method to estimate this incremental cost is to estimate what the cost would be with and without any new customers, with the difference between the two estimates being attributable to the new customers, and therefore being the incremental cost. We have assessed capital expenditure that is attributable to more than one driver against the principle of incremental cost.

Table 3.3 summarises our assessment of the capital expenditure included by Lower Murray Water.

Table 3.3: Assessment of new customer contributions allocations

Category	Capital expenditure (\$m)	Methodology explained	Methodology applied & documented	Allocator	Allocator verifiable
New network assets	90.3	Yes	No	Fully allocated	Yes
Renewals	3.8	Yes	No	Fully allocated	Yes
Treatment plants	35.3	Yes	No	Customer demand	No
Water purchases	41.6	Yes	No	Customer demand	No

The methodology and approach provided by Lower Murray Water describes the approach to allocating capital expenditure to new customer contributions. However, it does not outline how it has had regard to the commission’s pricing principle as outlined in its guidance.⁶

In the absence of evidence of how Lower Murray Water has had regard to the commission’s pricing principles, we have had to assess the capital expenditure based on a degree of confidence that it would be appropriate. We have rated this confidence level as either high; medium or low.

3.3.1 Fully allocated to growth

The capital expenditure in this category relates to assets that are provided exclusively for new customers, as well as renewals. An assessment on those assets that only service new customers is relatively straightforward. The amount provided by Lower Murray Water for this review is consistent with the capital expenditure provided in its pricing submission. As the assessment of this category was undertaken as part of the review of capital expenditure for the Draft Decision, and no changes were recommended, we would conclude that there is a high degree of confidence that this capital expenditure should be included in new customer contributions.

For the capital expenditure related to renewals, we have not been provided with any detailed explanation as to why this should be fully allocated to new customer contributions. We would expect that renewing existing network pipelines would be for the benefit of existing customers as well as new customers.

Given the lack of a fully documented methodology and approach, together with no evidence of how Lower Murray Water has had regard to incremental costs for renewal expenditure, we have a low level of confidence that this is appropriate to include in the calculation of new customer contributions.

⁶ Essential Services Commission 2021, 2023 water price review: Guidance paper, 26 October, page 59.

3.3.2 Capital expenditure apportioned by customer numbers

For the assets that have been apportioned based on customer numbers, we have assessed this approach against the principle of incremental costs. As outlined in section 3.2.1 of this report, Lower Murray Water has explained how it has apportioned costs to new customers. It has not articulated how it has had regard to incremental costs when apportioning these costs.

While we understand the challenges that may arise from estimating incremental costs, our view is that apportioning costs according to the number of existing and new customers would appear to be based on average costs, which we would expect to be higher than incremental costs. As Lower Murray Water has not attempted to estimate incremental costs as an allocator, we have no way of knowing how this compares to the use of customer connections.

For the capital expenditure included in new customer contributions from previous regulatory periods (sunk assets), water businesses need to demonstrate that the expenditure included has had regulatory depreciation and any revenue from new customer contributions removed from these assets to ensure that only expenditure relating to future new customers is included. Lower Murray Water did not provide any documentation that demonstrates that it has undertaken this for sunk assets.

Given that Lower Murray Water has not been able to demonstrate how it has had regard to incremental costs for this asset category, we have a low level of confidence that the capital expenditure is appropriate to include in the calculation of new customer contributions. In addition, given there is no evidence of how Lower Murray Water has had regard to the removal of regulatory depreciation and new customer contribution revenue for sunk assets, we have a low level of confidence that this capital expenditure is appropriate to include in the calculation of new customer contributions.

3.3.3 Summary of assessment

In summary we have a high level of confidence that \$90.3 million of assets exclusively associated with growth should be included in the calculation of new customer contributions, and a low level of confidence in the remaining \$80.8 million of capital expenditure.

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