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# Goulburn Valley Water: Review of expenditure forecasts

2023 Water Price Review

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## — Table of Contents

Executive Summary .....	v
Forecast operating expenditure .....	v
Forecast capital expenditure .....	vi
<b>1 INTRODUCTION .....</b>	<b>1</b>
1.1 Purpose of this report .....	1
1.2 Context and challenges facing Victorian water businesses .....	1
1.3 Water industry regulatory framework.....	3
1.4 Methodology and approach.....	5
1.5 Structure of this report .....	6
<b>2 SUMMARY OF EXPENDITURE PROPOSAL .....</b>	<b>7</b>
2.1 Forecast controllable operating expenditure .....	7
2.2 Forecast capital expenditure.....	9
<b>3 OPERATING EXPENDITURE ASSESSMENT .....</b>	<b>11</b>
3.1 Overview of assessment approach .....	11
3.2 Key operating expenditure drivers across water businesses.....	12
3.3 Assessment of the baseline.....	15
3.4 Assessment of the step changes .....	17
3.5 Forecast growth and efficiency factors.....	24
3.6 Summary of controllable operating expenditure assessment.....	25
<b>4 CAPITAL EXPENDITURE ASSESSMENT.....</b>	<b>26</b>
4.1 Overview of assessment approach .....	26
4.2 Assessment of overall capital program .....	27
4.3 Assessment of major projects and major programs .....	30
4.4 Summary of capital expenditure assessment .....	39
<b>APPENDIX A: CROSS-INDUSTRY OPERATING EXPENDITURE ISSUES .....</b>	<b>40</b>
Overview .....	40
Energy expenditure.....	40

IT expenditure..... 46  
Labour costs..... 50

## Glossary

<b>Term</b>	<b>Definition</b>
DEECA	Department of Energy, Environment and Climate Action, formerly DELWP
DELWP	Department of Environment, Land, Water and Planning
EA	Enterprise Agreement
ESC	Essential Services Commission
FTE	Full time equivalent
FTI Consulting	FTI Consulting (Australia) Pty Ltd
GL	Gigalitre
kWh	Kilowatt
ML	Megalitre
PEER	Public Entity Executive Remuneration
PREMO	Performance, Risk, Engagement, Management and Outcome
PS4	Price Submission for the fourth regulatory period (2017-18 to 2022-23)
PS5	Price Submission for the fifth regulatory period (2023-24 to 2027-28)
PV	Photovoltaic
RBA	Reserve Bank of Australia
SaaS	Software as a Service
Schneider	Schneider Electric Energy and Sustainability Services
SGC	Superannuation Guarantee Charge
WIRO	Water Industry Regulatory Order
WPI	Wage Price Index
WSAA	Water Services Association of Australia

## Executive Summary

FTI Consulting has been engaged by the Essential Services Commission (the Commission) to undertake an independent expert review of the Victorian water businesses' forecast (controllable) operating and capital expenditure for the 1 July 2023 to 30 June 2028 (PS5) regulatory period.

The Commission is required to assess the water businesses' proposals against a legal framework set out in the *Water Industry Regulatory Order 2014* and the Commission's PREMO pricing framework. We have assessed Goulburn Valley Water's forecast operating and capital expenditure based on the guidelines contained in the Commission's *2023 Water Price Review: Guidance Paper*.

This report sets out our views as to whether Goulburn Valley Water's forecasts of capital and operating expenditure over the regulatory period can be reasonably assessed to be prudent and efficient.

### Forecast operating expenditure

Goulburn Valley Water's baseline 2021-22 controllable operating expenditure is \$52.13 million. This is \$5.3 million (or 11.4 per cent) more than the benchmark allowance approved by the Commission in the last price review. It has proposed a step change increase to its baseline operating expenditure of \$13.8 million across the PS5 regulatory period.

Goulburn Valley Water has forecast an average growth factor for operating expenditure of 1.5 per cent per year and an efficiency factor of 0.4 per cent per year over the PS5 regulatory period.

Based on Goulburn Valley Water's PS5 proposal, discussions with the business and the further information it provided, we have formed the view that most of the forecast operating expenditure is consistent with a prudent business operating efficiently. This reflects our view that for most of the controllable operating expenditure:

- the key drivers of the overspend against the baseline appear reasonable, and the baseline does not appear to include any items that are non-recurring
- the proposed step changes are reasonable and supported by a sound rationale
- it is not reasonable to expect that these step changes could be absorbed by the business given the net growth factor of 1.1 per cent per year.

However, we recommend that Goulburn Valley Water's controllable operating expenditure benchmark allowance reflect the following adjustments:

- remove increased maintenance cost reflected in the baseline controllable operating expenditure
- remove the step change costs attributable to Customer willingness to pay projects.

These adjustments have the effect of reducing Goulburn Valley Water’s benchmark allowance for controllable operating expenditure over the PS5 regulatory period as shown in Table 1 below.

Table 1: Recommended adjustments – controllable operating expenditure (\$ 1 January 2023, millions)

	2023-24	2024-25	2025-26	2026-27	2027-28
<b>Forecast controllable operating expenditure</b>	<b>53.12</b>	<b>53.92</b>	<b>55.14</b>	<b>57.77</b>	<b>57.12</b>
<b>Recommended adjustments:</b>					
Baseline – remove increased maintenance costs	0.98	0.99	1.01	1.02	1.04
Step change – Customer willingness to pay projects	1.80	1.80	1.80	1.80	1.80
<b>Total recommended adjustments</b>	<b>2.78</b>	<b>2.79</b>	<b>2.81</b>	<b>2.82</b>	<b>2.84</b>
<b>Adjusted total operating expenditure</b>	<b>50.34</b>	<b>51.12</b>	<b>52.33</b>	<b>54.95</b>	<b>54.28</b>

## Forecast capital expenditure

Goulburn Valley Water has forecast capital expenditure of \$245.01 million for the PS5 regulatory period. This is 39 per cent than its actual capital expenditure (including 2022-23 forecast) over the PS4 regulatory period.

Goulburn Valley Water’s PS5 submission provides a breakdown of its forecast capital expenditure for the PS5 regulatory period. However, the information presented was limited which prompted us to request additional detailed information from the business. The additional information provided was well developed and provides a high level of confidence that most of the proposed capital expenditure program is appropriate, prudent and robust, and capable of being delivered over the PS5 regulatory period.

The information provided to us by Goulburn Valley Water in relation to the key issues of further investigation provides a reasonable level of confidence that the most proposed capital expenditure program is consistent with a prudent business operating efficiently.

However, we recommend adjustments to the forecast capital expenditure for the PS5 regulatory period as follows:

- adjust the benchmark allowance for the Watermain Renewal Program by \$3.75 million (\$0.75 million per year)
- adjust the benchmark allowance for the Shepparton Corporate Office Upgrade by \$13.8 million.

Table 2: Recommended adjustments - capital expenditure (\$ 1 January 2023, millions)

	2023-24	2024-25	2025-26	2026-27	2027-28
Forecast capital expenditure	57.80	60.23	48.07	40.59	38.32
<b>Recommended adjustments:</b>					
Shepparton Office Renewal Project	6.30	7.50			
Water Main Renewal Program	0.75	0.75	0.75	0.75	0.75
<b>Total recommended adjustments</b>	<b>7.05</b>	<b>8.25</b>	<b>0.75</b>	<b>0.75</b>	<b>0.75</b>
<b>Adjusted total capital expenditure</b>	<b>50.75</b>	<b>51.98</b>	<b>47.32</b>	<b>39.84</b>	<b>37.57</b>



# 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 (referred to in this report as the PS5 regulatory period).<sup>1</sup> Each of the Victorian water businesses, including Goulburn Valley Water, submitted their proposals to the Commission for assessment on 30 September 2022.

FTI Consulting has been engaged to undertake an independent expert review of the water businesses' forecast operating expenditure and capital expenditure for the PS5 regulatory period. The scope of our review of operating expenditure is limited to controllable operating expenditure.

This report sets out our independent expert view of the prudence and efficiency of Goulburn Valley Water's capital expenditure and controllable operating expenditure forecasts for the PS5 regulatory period, in accordance with the requirements of the regulatory framework.

## 1.2 Context and challenges facing Victorian water businesses

The environment faced by most Victorian water business over the last few years has been significantly more challenging than envisaged in 2018 when the Commission approved the expenditure forecasts used to set water prices for the 1 July 2018 to 30 June 2023 (PS4) regulatory period.

The COVID-19 pandemic has been one of the unforeseen events that has impacted the Victorian water businesses' expenditure in several ways, including:

- requiring additional water and wastewater monitoring and treatment
- increasing customer hardship due to cost-of-living pressures
- disrupting business operations, including the ability to carry out maintenance activities and higher rates of staff absenteeism

<sup>1</sup> This includes 13 water businesses providing urban water and sewerage services include Barwon Water, Central Highlands Water, Coliban Water, East Gippsland Water, Gippsland Water, Goulburn Valley Water, GWMWater, Lower Murray Water, South East Water, South Gippsland Water, Wannon Water, Westernport Water and Yarra Valley Water and two businesses providing rural services including Lower Murray Water and Southern Rural Water.

- changing work practices, including social distancing and hygiene requirements as well as transitioning to enable staff to work from home
- disrupting supply chains, putting pressure on the availability and cost of inputs
- increasing migration from Melbourne to regional areas.<sup>2</sup>

These impacts have affected each water business's actual and forecast expenditure in different ways. Some water businesses have faced new costs or cost pressures, while others have enjoyed cost savings.

The effects of the COVID-19 pandemic continue to be felt nearly three years later. Some of these impacts are moderating as Victoria (and the rest of the country) adapts to a new phase of living with the pandemic. However, there is the potential for other more permanent changes, including changes to work practices and greater migration of people from major cities to regional areas. At the time of this review, the longer-term implications remain unclear.

There are other events and changes that were unforeseen (or at least unable to be fully anticipated) as part of the Commission's previous water price review. These include:

- the continued impacts of climate change on the frequency and severity of major weather events, including drought, bushfires and floods
- the continued evolution in climate change and environmental policy, including emission reduction strategies and targets, and associated compliance and reporting obligations
- a continued hardening of the insurance market, which also (at least partly) reflects the impacts of major climate-related events domestically and globally
- a ramping up of the need to do more to mitigate cyber security risks, including mandated obligations.

These issues and challenges *do not* imply or support a premise that:

- water businesses should continue to increase their operating and capital expenditure, and hence water and sewerage prices
- there should be lower expectations in terms of the need to drive efficiency savings in the longer term for the benefit of customers
- businesses should avoid responsibility for managing the risk of cost increases and/or passing more of those risks on to customers.

<sup>2</sup> For example, refer: <https://population.gov.au/sites/population.gov.au/files/2021-09/the-impacts-of-covid-on-migration-between-cities-and-regions.pdf>, accessed 1 December 2022.

It further underlines the importance of scrutinising increases in expenditure, as well as proposed step changes, to ensure that they remain consistent with the actions of a prudent business operating efficiently, including in how it responds to the uncertainties and challenges in its operating environment. It also does not alter the standards that should be reasonably expected of businesses in supporting and justifying any increases in expenditure for the next regulatory period, including being able to provide adequate supporting documentation (such as Board-approved policies or strategies and business cases).

### 1.3 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)*<sup>3</sup> and the Commission's PREMO framework for approving prices.<sup>4</sup>

The Commission's regulatory framework places an emphasis on efficient delivery of services. Assessing the prudence and efficiency of a water business's expenditure forecasts is fundamental to achieving this objective.

In 2018, the Commission introduced a new approach called PREMO to regulate the prices charged to Victorian water businesses. As Figure 1.1 describes, the PREMO approach contains both new and conventional elements related to price, risk, engagement, management and outcomes. PREMO provides water businesses with incentives to put forward their best offer to customers and deliver the outcomes its customers value most and to deliver these as efficiently as possible.

<sup>3</sup> 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)*.

<sup>4</sup> Essential Services Commission 2016, *Water Pricing Framework and Approach: Implementing PREMO from 2018*, October.

Figure 1.1: The Commission’s PREMO framework

Performance	Have the performance outcomes to which the business committed in its last price submission been met or exceeded?
Risk	Has the business sought to allocate risk to the party best positioned to manage that risk?
Engagement	How effective was the business’ customer engagement?
Management	Is there a strong focus on efficiency? Are controllable costs increasing, staying the same, or decreasing?
Outcomes	Do proposed service outcomes represent an improvement, the status quo, or a withdrawal of service standards?

More conventional elements of PREMO include the retention of the building block approach, which provides reasonable certainty that prudent and efficient costs can be recovered. This includes an expenditure review to determine whether a water business’s proposed capital and operating expenditure forecasts are consistent with the requirements of the regulatory framework.

Under the PREMO framework, each submission is expected to reflect the water business’s best offer to its customer base. Submissions may be fast tracked through the assessment process based on several factors. Some water business proposals may require a more detailed review of their proposed expenditure while others may only require a review of some elements of their proposed expenditure (for example, specific items where expenditure is increasing).

The *2023 Water Price Review: Guidance Paper* (the Guidance Paper) explains the Commission’s methodology and approach to assessing water businesses’ price submissions and making a price determination and sets out the information each business is required to provide in its price submission.<sup>5</sup> The Guidance Paper also identifies the governing criteria for each component of the building block methodology, including forecast operating and capital expenditure.

This review is the second review under PREMO for these businesses. The Commission also expects price submissions to demonstrate how water businesses are building on their previous proposals to deliver value to their customers.

<sup>5</sup> Essential Services Commission 2021, 2023 Water Price Review: Guidance paper, 26 October.

## 1.4 Methodology and approach

The scope of our assessments is limited to examining water business's forecast controllable operating expenditure and capital expenditure over the PS5 regulatory period. It does not include examining decisions about whether to fast track a water business's PS5 submission, nor does it involve assessing other elements of the PREMO framework such as past performance or engagement.

Our methodology for assessing Goulburn Valley Water's capital and operating expenditure forecasts for the next regulatory period is consistent with the Commission's Guidance Paper. In summary, the scope of our review includes:

- for forecast operating expenditure, our assessment focuses on controllable expenditure only. We have assessed proposals using the base-step-trend approach as set out in the Commission's Guidance Paper and is consistent with the basis on which each water business has submitted information as part of their price review model templates
- for forecast capital expenditure, our assessment focuses on the Top 10 major projects and major capital expenditure programs that comprise a significant proportion of the water business's total capital expenditure forecast.

Further detail about our assessment framework as it has been applied is set out in Section 3 (Operating expenditure assessment) and Section 4 (Capital expenditure assessment).

Our process has involved several steps:

- an initial review of PS5 price submissions, financial model templates and associated documentation
- comparison of each of the water business's proposed capital and operating expenditure proposals, including assumptions adopted in relation to growth trends, efficiency factors, and comparison of actual and proposed expenditure
- a Stage 1 (preliminary) assessment workshop undertaken with Commission staff identifying the key issues to be explored in our more detailed review
- 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.

## 1.5 Structure of this report

The structure of this report is as follows:

- Chapter 2 provides a high-level summary of the Goulburn Valley Water's expenditure proposal
- Chapter 3 sets out our assessment of Goulburn Valley Water's operating expenditure proposals
- Chapter 4 sets out our assessment of Goulburn Valley Water's capital expenditure proposals.

Consistent with the Commission's guidance paper and the price review model completed by businesses, all forecasts and actuals are expressed in dollars as at 1 January 2023.

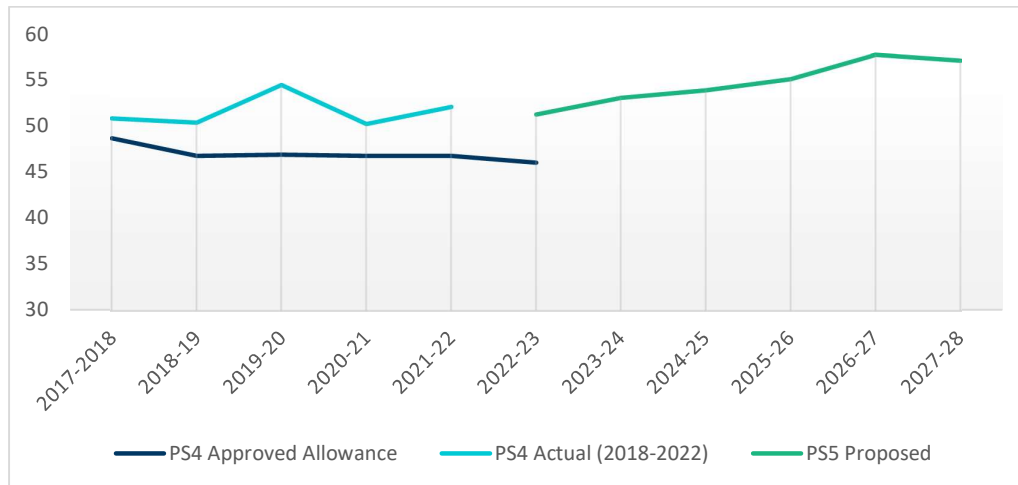
## 2 SUMMARY OF EXPENDITURE PROPOSAL

### 2.1 Forecast controllable operating expenditure

For the current PS4 regulatory period, the Commission approved a total controllable operating expenditure benchmark allowance for Goulburn Valley Water of \$233.47 million (\$ 1 January 2023).

For the first four years of the PS4 regulatory period, Goulburn Valley Water’s actual operating expenditure was \$207.31 million (10.6 per cent) above the benchmark allowance approved by the Commission for those four years. This is shown in Figure 2.1.

Figure 2.1: Goulburn Valley Water’s actual and forecast controllable operating expenditure by year (\$ 1 January 2023, millions)



Source: Goulburn Valley Water 2022, ESC Financial Model for PS5, 5 October; Essential Services Commission 2018, Goulburn Valley Water Determination Price Review Model: 1 July 2018 – 30 June 2023.

Goulburn Valley Water’s baseline 2021-22 controllable operating expenditure is \$52.13 million, which is \$5.3 million (or 11.4 per cent) more than the benchmark allowance approved by the Commission in the last price review.

Goulburn Valley Water has proposed step changes to the baseline totaling \$13.8 million across the PS5 regulatory period, as outlined in Table 2.1.

Table 2.1: Goulburn Valley Water's step changes (\$ 1 January 2023, millions)

Proposed step change	Value
Customer willingness to pay projects	9.0
Digital strategy (including benefits)	2.80
Sludge management	1.90
PS6 pricing submission and Urban Water Strategy	1.10
Solar program	1.10
Planning climate resilience strategy	0.50
Power and energy	-2.50
<b>Total</b>	<b>13.80</b>

Source: Goulburn Valley Water 2022, ESC Financial Model for PS5, 5 October.

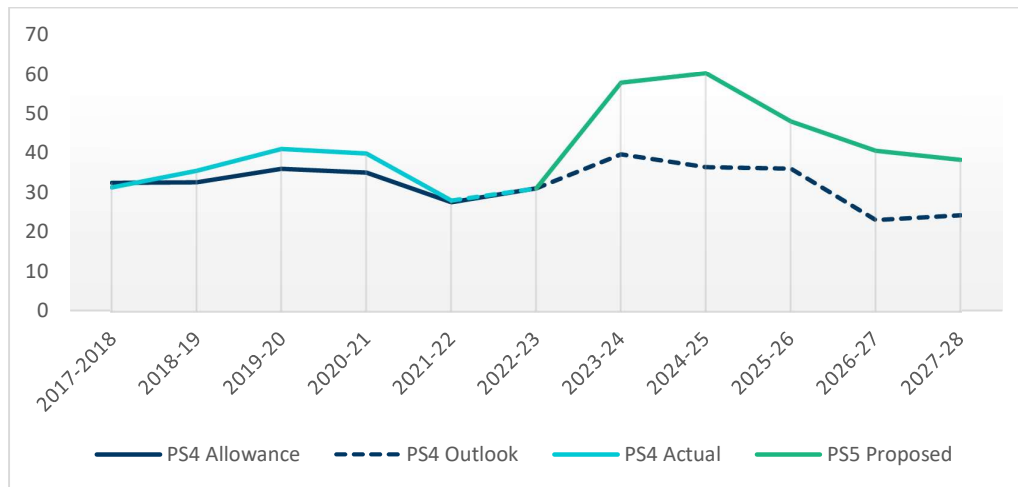
Goulburn Water has forecast an average growth factor for operating expenditure of 1.5 per cent per year and an efficiency factor of 0.4 per cent per year over the PS5 regulatory period



## 2.2 Forecast capital expenditure

Goulburn Valley Water has forecast capital expenditure of \$245.01 million for the PS5 regulatory period. This is 39 per cent more than its actual capital expenditure (including 2022-23 forecast) over the PS4 regulatory period, as shown in Figure 2.2.

Figure 2.2: Goulburn Valley Water’s actual and forecast capital expenditure by year (\$ 1 January 2023, millions)



Note: 'PS4 Approved Allowance' relates to the approved capital expenditure benchmark allowance for 2017-18 to 2022-23, and the business’s 2018 forecast for 2023-24 to 2027-28.

Source: Goulburn Valley Water 2022, ESC Financial Model for PS5, 5 October.; Essential Services Commission 2018, Goulburn Valley Water Determination Price Review Model: 1 July 2018 – 30 June 2023.

The key drivers, projects and programs are well linked to customer outcomes and engagement results as defined in the submission and supporting documentation, and include:

- renewals \$133.12 million (54 per cent of the total capital expenditure program)
- growth \$33.13 million (13.5 per cent of the total capital expenditure program)
- top 10 major projects (\$121.94 million)
- three major programs (\$25.95 million).

Goulburn Valley Water’s top 10 capital expenditure projects, shown in Table 2.2, account for 49.7 per cent of its proposed capital expenditure for the PS5 regulatory period.

Table 2.2: Goulburn Valley Water’s top 10 capital expenditure projects (\$1 January 2023, millions)

Major capital expenditure project	Proposed cost (\$ million)
Large scale solar	20.5
Nathalia water supply pipeline	17.34
Broadford Water Treatment Plant upgrade	14.56
Health based targets water treatment plant upgrade program	14.50
Shepparton corporate office upgrade	13.80
Shepparton Operations Centre Clear Water Storage augmentation	11.74
Mansfield raw water pipeline upgrade – Ritchies Reservoir to Mansfield No.3 Reservoir	11.25
Core business automation (SCADA) replacement	8.09
Mansfield Water Treatment Plant upgrade	5.08
Mansfield Wastewater Management Facility winter storage augmentation	5.08

Source: Goulburn Valley Water 2022, ESC Financial Model for PSS, 5 October.

## 3 OPERATING EXPENDITURE ASSESSMENT

### 3.1 Overview of assessment approach

The Commission's Guidance Paper notes the requirement that forecast operating expenditure is:

*... operating expenditure which would be incurred by a prudent service provider acting efficiently to achieve the lowest cost of delivering on service outcomes over the regulatory period, taking into account a long-term planning horizon (prudent and efficient forecast operating expenditure).<sup>6</sup>*

The Commission has asked us to provide an independent expert view on whether Goulburn Valley Water's forecast controllable operating expenditure is prudent and efficient having regard to the base-step-trend approach and assessment criteria set out in its Guidance Paper.

We have assessed whether forecast controllable operating expenditure is consistent with the actions of a prudent business operating efficiently, including if:

- the established 2021-22 controllable operating expenditure baseline has been appropriately adjusted for any one-off expenditure items and efficiency commitments
- operating costs reflect reasonable cost efficiency/productivity assumptions applied to the 2021-22 baseline controllable operating expenditure, having regard to industry trends
- changes in operating costs are consistent with the timing of major capital projects
- operating costs can fulfil the business's obligations and meet customer service expectations as efficiently as possible
- any forecast divergence from historical trends in operating expenditure can be readily explained, for example, by changes in obligations imposed by government, including technical, regulatory and customer service expectations.

<sup>6</sup> Essential Services Commission, 2023 Water Price Review: Guidance Paper, August 2022 Amendment, p.28.

The key steps in our approach were as follows.



In assessing proposed increases in expenditure, including step changes, we have had regard to each business's approach to allowing for growth and efficiency, and the resulting net growth factor for the PS5 regulatory period. For example, some businesses have proposed more ambitious efficiency targets (resulting in negative net growth in expenditure over the PS5 regulatory period) and/or have sought to recognise economies of scale in allowing for growth.

This is a relevant factor in considering the business's ability to absorb cost increases, including proposed step changes, which has required us to apply judgement in assessing the reasonableness of the business's proposals.

### 3.2 Key operating expenditure drivers across water businesses

There are several drivers of increased operating expenditure over the current PS4 regulatory period and/or forecast for the PS5 regulatory period that are common across water businesses, as summarised in Table 3.1.

Appendix A presents more detailed analysis and cross-industry metrics for electricity, labour and IT costs, using information submitted by the businesses in their respective Price Review Models. We have not sought to directly benchmark these costs across the water businesses as the requirements of each business vary. However, such comparisons do

further assist in identifying those businesses that might be looking at more material increases in expenditure. It also provides some context to assessing these costs for each business. A summary of the key implications of this analysis for our assessment approach is provided below.

Table 3.1: Common operating expenditure issues

Expenditure category	What we have examined
<b>Electricity</b>	<p>The application of the Schneider Electric (Schneider) electricity price forecasts. Schneider was commissioned by Intelligent Water Networks to prepare an electricity price forecast that could be consistently applied by all of the water businesses.</p> <p>The approach to meeting the Victorian water sector’s commitment to the State Government to source 100 per cent of their energy requirements from renewables by 2025, recognising that each business’s approach will reflect its own circumstances and operating environment (this can also include capital projects).</p>
<b>Labour</b>	<p>The rationale for any material growth in employee numbers.</p> <p>Remuneration increases, having regard to each organisation’s Enterprise Agreement (EA) as well as conditions in labour markets, with several regional businesses citing challenges in attracting and maintaining people with the right skills. Some businesses have also referred to the Victorian Government’s 2022 Public Entity Executive Remuneration (PEER) review of executive remuneration.</p>
<b>IT</b>	<p>Software as a Service (Saas), with all businesses either having transitioned, or are in the process of transitioning, to cloud-based services. This has also resulted in expenditure that would have been classified as capital expenditure now treated as operating expenditure.</p> <p>Cyber security, which is an important issue for all water businesses as well as utilities and other corporations more generally. This includes compliance with new obligations.</p>

### Electricity costs

The information submitted by each of the businesses indicates that most are applying the 75<sup>th</sup> percentile of Schneider’s long-term forecast of the electricity spot price. In its report, Schneider assumes that the water businesses are most likely to enter a contract rather than

remain exposed to spot prices and that contract price will be around the 75<sup>th</sup> percentile of its forecast.<sup>7</sup>

This conclusion reflects the likelihood that generators will require a 'premium' above their expected spot price to enter a contract because:

- A premium will be required for the generator to be willing to forgo opportunities to sell that capacity if prices rise above the expected spot price (recognising that the generator is also benefiting if prices fall).
- If it is 'caught short' in terms of its ability to deliver the contracted capacity, it may need to go into the market to procure the shortfall at the prevailing spot price and is therefore exposed to short-term price increases.

Given this, we consider that relying on the 75<sup>th</sup> percentile of the Schneider forecasts appears reasonable.

We have reviewed each business's proposed energy expenditure within the context of its total forecast controllable operating expenditure proposal. Some businesses have proposed step changes for green power costs, which we have assessed on its own merits.

#### IT expenditure

As with other costs, we have not sought to directly benchmark IT operating expenditure across the businesses. This is because the needs of each business are likely to vary due several factors, including its size, customer base, the nature and scope of its operations and the age and maturity of its IT architecture and systems. Some businesses may also need to undertake capital expenditure.

We have assessed proposed increases for IT expenditure as proposed by each business on their own merits. We have used this context to satisfy ourselves that the level of IT expenditure for each business is reasonable and justified, particularly for those businesses that appear higher on the comparative metrics.

For businesses that have proposed material increases in IT expenditure which have contributed to increases in baseline expenditure and/or step changes, we have sought to assess whether:

- it appears reasonable for the business to be incurring this expenditure, having regard to necessity/risk as well as the expected benefits
- it is supported by appropriate evidence, such as an IT strategy or business plan

<sup>7</sup> Schneider Electric 2022, Electricity Price Forecast, Covering FY23 to FY28, Base Case, 23 March, p.17.

- the evidence aligns with the forecasts proposed in the business's Price Review Model.

### Labour costs

As for IT expenditure, we have used the information in Appendix A as context when assessing each business's proposed operating expenditure. For most businesses identifying increases in labour costs, this has tended to be a combination of increases in staffing as well as remuneration.

For businesses that have proposed material increases in labour-related expenditure (either as reflected in a baseline uplift and/or step change), we have reviewed the rationale for the proposed increase and sought further supporting information where relevant. This included material increases in FTE numbers and/or increases in remuneration. Where increases have also been attributed to the Superannuation Guarantee Charge (SGC), we have confirmed with the business that this reflects an increase in total remuneration payable.

The following sections summarise our assessment of Goulburn Valley Water's forecast controllable operating expenditure for the PS5 regulatory period.

### 3.3 Assessment of the baseline

After adjusting for non-recurring items, Goulburn Valley Water's controllable operating expenditure in 2021-22 was \$52.13 million. This is \$5.3 million (or 11.4 per cent) more than the \$46.8 million benchmark allowance approved by the Commission as part of the last price review.

Our approach to assessing the reasonableness of the baseline expenditure involves considering:

- whether any overspend against the benchmark allowance is consistent with what is required by a prudent business operating efficiently
- the forecast operating expenditure includes any items that are non-recurring.

Goulburn Valley Water's controllable operating expenditure in 2021-22 included a one-off increase to maintenance costs, as Goulburn Valley Water explained:

*The 21/22 budget for maintenance was increased approximately \$1 million compared to the 20/21 actuals to allow for maintenance activities that had been delayed from the previous years.<sup>8</sup>*

<sup>8</sup> 2. DOC22 72749 PP4 Financial Performance Review

To reflect this one-off cost, we have reduced the controllable operating expenditure in 2021-22 to \$51.13 million.

Goulburn Valley Water's explained that the overspend in its baseline operating expenditure against the benchmark allowance is attributed to the following key drivers:

- **Labour costs** escalated by \$7.44 million as at 30 June 2021 primarily due to 27.6 new full time equivalent (FTE) positions being recruited between 2018-19 and 2020-21 attributable to:
  - **Additional compliance:** includes roles associated with Safety, Risk Management, Procurement and Legal
  - **New digital strategy:** additional staff to implement the new digital strategy developed to ensure that Goulburn Valley Water could meet the needs of customers in a modern environment
  - **Operations and assets:** several additional roles as a direct result of increasing assets and dedicating resources to preventative maintenance
  - **Operating model change:** Goulburn Valley Water is working through a Board approved organisational operating model change.

In addition to FTE numbers, there are several other factors that contribute to Goulburn Valley Water's labour variances:

- different escalation rates used in the Commission's model compared to the Enterprise Agreement
- changes to the superannuation rate
- reclassification of existing staff
- changes in capitalisation and
- transition to retirement scheme.

Goulburn Valley Water advised that there were some key vacancies during the 2021-22 financial year that it could not absorb into the baseline operating expenditure including GM Customer & Growth (\$0.20 million), Safety (\$0.15 million) and Planning and Climate Resilience (\$0.18 million). As a result, Goulburn Valley Water increased the baseline by \$0.56 million to accommodate these roles.

- **Maintenance** non-labour costs associated with maintaining Goulburn Valley Water's system. Increase in materials, plant and equipment hire, maintenance contracts and laboratory consumables and testing.
- **Information communications and technology (ICT):** In the 2021-22 financial year a new interpretation of Software as a Service (SaaS), accounting treatments came into effect. Goulburn Valley Water was required to reclassify \$3 million of SaaS



costs from capital expenditure to operating expenditure for accounting purposes. Goulburn Valley Water is treating these costs as capital expenditure for regulatory purposes. Goulburn Valley Water has made an accounting adjustment and reversed these costs out of the baseline. The remaining \$1.13 million variance in the 2021-22 financial year represents additional software licensing costs as Goulburn Valley Water transitions from on premises applications to cloud based applications.

- **Power and Energy:** Power and energy variances to the Commission forecasts were driven by higher than anticipated cents per kilowatt hour (kWh). The average cents per kWh is approximately 3.79 cents higher than the benchmarks approved by the Commission in the last price review. This variation increased power and energy costs in the first two years of PS4 by approximately \$0.78 million. In 2020-21, Goulburn Valley Water installed 1.9 megawatts of solar panels. The impacts of solar panels resulted in a material decline in Goulburn Valley Water's 2020-21 actual total expenditure and per kWh rates. Stage 2 of this project is currently underway and will deliver an additional 225 kWh of power by December 2022 further reducing Goulburn Valley Water's kWh consumption and total power and energy costs.
- **Chemicals:** Goulburn Valley Water's chemicals contract expired in August 2021 after several extensions. A new contract was signed after approaching the market for tenders. The new contract is for three years. Several of the chemicals within this contract saw price escalation.

After reviewing the explanation in Goulburn Valley Water's PS5 submission, as well as the further information provided, we recommend that Goulburn Valley Water's baseline 2021-22 controllable operating expenditure be adjusted downwards to by \$1.0 million to \$51.13 million to reflect the increase in maintenance conducted in that year, which we believe will not be required in PS5.

We consider that there is a clear rationale for all other cost increases, and they are consistent with a prudent business operating efficiently. We can also confirm that the remaining costs are recurrent.

### 3.4 Assessment of the step changes

Goulburn Valley Water has proposed step changes further increasing its baseline 2021-22 operating expenditure of \$13.8 million for the PS5 regulatory period, comprising costs associated with new capital projects, new strategies and customer willingness to pay projects.

Table 3.2: Goulburn Valley Water’s key step changes (\$1 January 2023, millions)

Area of focus	Value	Explanation
<b>Customer willingness to pay projects</b>	9.0	Goulburn Valley Water is proposing several projects under the categories of Regional Leadership, Local benefits of Carbon Emissions Abatement and Supporting Customers in need.
<b>Digital Strategy (including benefits)</b>	2.8	Goulburn Valley Water has costed its digital strategy and included an adjustment to allow for future expenditure. The increase in operating expenditure is to implement and run new SaaS systems. This spend is predominately comprised of FTE increases and licence agreements.
<b>Sludge Management Strategy</b>	1.9	Goulburn Valley Water has a sludge management strategy which requires lagoons to be de-sludged in the PS5 regulatory period.
<b>Pricing submission and Urban Water Strategy</b>	1.1	Funding to prepare Goulburn Valley Water’s PS6 pricing submission.
<b>Solar program</b>	1.1	Increased maintenance costs associated with new solar banks.
<b>Planning Climate Resilience Strategy</b>	0.5	Goulburn Valley Water has planned its consultancy engagements for the PS5 regulatory period and included adjustments to allow for this plan.

Source: Goulburn Valley Water, PP5 Base Step Trend - Forecast - Updated 23 December 2022 DOC22 101614.

We have focused our assessment on step change increases only on the basis that these increases are likely to be reflected in the baseline controllable operating expenditure in the next regulatory period. We assessed the reasonableness of those step change increases by examining whether the proposed step changes meet one or more of the following criteria:

- comply with new, or changed, legislative or regulatory obligations
- achieve an outcome or implement an initiative that is endorsed by customers or broadly meets accepted changes in community expectations
- recategorise expenditure between capital and operating expenditure, where the business can demonstrate that it is necessary or appropriate to do so
- reflect the incremental operating expenditure associated with a new prudent and efficient capital project

- cannot be mitigated or otherwise absorbed by an efficient business operating within its approved budget (including the growth allowance).

Goulburn Valley Water's PS5 submission provided very little detail regarding the proposed step changes. As a result, we sought further information from Goulburn Valley Water to assess these step changes having regard to the above criteria as discussed below.

### 3.4.1 Customer willingness to pay projects – \$9 million

Goulburn Valley Water proposes several customer willingness to pay projects associated with regional leadership, carbon emissions and vulnerable customer initiatives, which it has indicated have come out of its customer engagement.

We have adopted a consistent approach across businesses who have indicated that they have tested their customers willingness to pay for various projects having regard to the following criteria:

- Has the business tested willingness to pay with a sufficiently representative sample of customers?
- Are the proposed projects sufficiently detailed to enable customers to understand the key outcomes and implications for customers' bills arising from the proposed projects?
- Is there clear support for the proposed project to be funded through an increase in customer bills?

Goulburn Valley Water formed a Customer Panel of 41 members comprising approximately 20 members from its existing Annual Performance Forum (APF) panel. It added a further 20 members from the broader Goulburn Valley Water customer base to its Customer Panel selected by an online expression of interest to fill gaps in representation (such as younger customers, customers from the Northern region, and non-residential customers).

The customer panel were asked to consider the following topics and asked to vote on priority projects within each sub topic.

Each discrete topic entailed several projects. The documentation provided by Goulburn Valley Water itemised and described these projects as follows:

Table 3.3: Goulburn Valley Water description of customer willingness to pay projects

Topic	How much customer money should be put towards achieving this?	Priority projects
1. Regional leadership	\$4 million (revenue requirement)	Projects relating to Integrated Water Management, community projects, and creating awareness about the transition to net zero among the younger generations*.
2. Local benefits of carbon emissions abatement	\$3 million (revenue requirement)	Projects relating to local jobs, partnering with other organisations in this space, creating environmental benefits, and creating cultural, employment and economic benefits for local Aboriginal people.
3. Supporting customers in need	Between \$2 million and \$3 million (revenue requirement)	Projects relating to Goulburn Valley Water partnering with organisations to assist clients to save water, identifying and repairing leaks for customers who can't afford to pay for repairs, providing scholarship programs to students, increasing staffing levels to provide more targeted case management, and educating the community on this topic*.

Source: Goulburn Valley Water 2022, Pricing Submission Customer Panel Report, May.

The Customer Panel were advised that these projects were incorporated into the 2 per cent per year price rise proposed for the PS regulatory period before the final vote accept or reject the projects.

However, based on the report provided by Goulburn Valley Water it is uncertain whether the Customer Panel were provided with sufficient detail about each of the projects to assist its consideration.

Goulburn Valley Water's Customer Panel Report expressed some concerns regarding both the quantum of spend associated with supporting customers in need and the readiness and appropriateness of some other projects. Goulburn Valley Water advised its customer panel that any unspent money from these projects will be returned to general funds. This suggests that Goulburn Valley Water is itself not convinced that the forecast \$9.0 million is required. Further, it is unclear how the unspent money from these projects' will be returned to customers given the Commission's regulatory framework.

While the Customer Panel supported these projects, it appears that there was some deliberation to achieve consensus on some items. It is also unsure how the voting was conducted under the scoring method of accept, tolerate or reject but the scoring of tolerate doesn't instill overall confidence.

We recommend that Goulburn Valley Water's forecast controllable operating expenditure allowance be adjusted to remove the \$9.0 million associated with the three proposed willingness to pay projects. In making this recommendation our concern is not with the quality of Goulburn Valley Water's customer engagement. Our concern arises because based on the additional information provided, the initiatives it is planning to undertake within this program are not sufficiently detailed to enable customers to understand the key outcomes and implications for customers' bills arising from the proposed projects. We also note the Customer Panel's own concerns expressed about both the appropriateness and costing of these projects. In the absence of this information we are unable to assess the prudence and efficiency of this proposed step change.

#### 3.4.2 Digital Strategy (including benefits) – \$2.8 million

Goulburn Valley Water has proposed a step change increase in operating expenditure of \$2.8 million to implement and operate new digital systems. It has provided information on the systems associated with this spend, which is made up of labour costs to backfill positions to deliver the digital program, labour to maintain and operate the new software after it has been delivered and additional licences required for the new software offset by the savings from relinquishing old software.

We have reviewed information provided by Goulburn Valley Water and consider that the allocation of additional resources to maintain these new systems is justified. Similarly, the allocation of spend for licensing of new software we consider is prudent. An assessment of the information provided which included detailed spreadsheets of the allocation of the spend to referenced categories provides confidence that the spend is prudent and efficient.

As a result, we are of the view that this proposed step change meets the criteria outlined above, specifically that costs are sufficiently material that they are not able to be met by an efficient business operating within its approved budget (including the growth allowance) or can be otherwise mitigated.

#### 3.4.3 Sludge Management Strategy – \$1.9 million

Goulburn Valley Water maintains a sludge management strategy which outlines costs for the next price period. The proposed step change is an uplift in the sludge management costs to meet the EPA biosolids reuse guidelines, incorporating the disposal of alum sludge. The documentation provided included current period spend per annum allocated to sludge management together with proposed spend over the PS5 pricing period. The spend associated with sludge management has been assessed and compared to other similar sized water authorities actual and proposed spends and is considered appropriate and not excessive. We have reviewed this strategy and its associated quantum of the spend and

consider it to be robust and well developed and provides sufficient justification for the increase. As a result, we are of the view that this proposed step change meets the criteria outlined above, specifically that costs comply with new, or changed, legislative or regulatory obligations.

#### 3.4.4 PS6 pricing submission and Urban Water Strategy – \$1.1 million

Goulburn Valley Water has included a step change proposal for assistance by external sources to develop the PS6 pricing submission and its Urban Water Strategy. The quantum of this step change has been compared to other water authorities proposed spend for this activity and considered appropriate for the engagement of external resources to assist in the development of the pricing submission and strategy. The information provided by Goulburn Valley Water regarding this step change provides sufficient justification for the increased. As a result, we are of the view that this proposed step change meets the criteria outlined above, specifically that costs are sufficiently material that they are not able to be met by an efficient business operating within its approved budget (including the growth allowance) or can be otherwise mitigated.

#### 3.4.5 Solar program – \$1.1 million

Goulburn Valley Water is required to meet the target of 100 per cent of electricity sourced from renewable sources by 30 June 2025 from the Statement of Obligations (Emissions Reduction). Goulburn Valley Water proposes to achieve this through a solar program. Operating costs for the solar assets will commence part way through the PS5 regulatory period to coincide with the construction of an additional solar panel bank proposed in its capital program. Goulburn Valley Water already operate a solar panel bank and have based this proposed spend on actual spends realised to operate that system.

A review of the information provided by Goulburn Valley Water regarding this step change provides sufficient justification for the increased. As a result, we are of the view that this proposed step change meets the criteria outlined above, specifically that costs comply with new, or changed, legislative or regulatory obligations.

#### 3.4.6 Planning Climate Resilience Strategy – \$0.5 million

Goulburn Valley Water has planned out its consultancy requirements for where external resources are needed for the development of this strategy and other strategies over next regulatory period. The strategy accounts for the following, Higher emphasis on climate adaptation activities and obligations (e.g. emissions reduction, integrated water management, water resource management planning) and additional requirements to address obligations from new EP Act. Goulburn Valley provided information which

categorised the spend against each of the strategies and components of work required to achieve compliance with its obligations.

A review of the allocation of spend was conducted and not considered excessive based on industry experience for this type of work. As a result, we are of the view that this proposed step change meets the criteria outlined above, specifically that costs comply with new, or changed, legislative or regulatory obligations.

### 3.4.7 Summary of our step change assessment

Based on Goulburn Valley Water's PS5 submission and the further information provided to us, and having regard to our step change criteria, we consider that most of the proposed step changes are reasonable.

We recommend adjusting Goulburn Valley Water's forecast controllable operating expenditure for the PS5 regulatory period downwards by \$9 million in relation to its proposed willingness to pay projects.

### 3.5 Forecast growth and efficiency factors

Goulburn Valley Water is forecasting average growth in operating expenditure of 1.5 per cent per year and an efficiency factor of 0.4 per cent per year over the PS5 regulatory period. This results in a net increase in operating expenditure over the PS5 regulatory period of 1.1 per cent per year. When comparing this net result against other water businesses, Goulburn Valley Water is 12<sup>th</sup> out of 13 urban water businesses subject to this review (see Table 3.3).

Table 3.3: Net average increase in operating expenditure per year by business (%)

Water business	Net average annual increase
South East Water	-0.9%
GWMWater	-0.8%
Wannon Water	-0.3%
Gippsland Water	-0.2%
Yarra Valley Water	-0.2%
Lower Murray Water (Urban)	0.0%
Barwon Water	0.1%
South Gippsland Water	0.2%
Westernport Water	0.5%
Coliban Water	0.5%
East Gippsland Water	0.7%
<b>Goulburn Valley Water</b>	<b>1.1%</b>
Central Highlands Water	1.2%

Source: Calculated from pricing models submitted by water businesses.



### 3.6 Summary of controllable operating expenditure assessment

Based on Goulburn Valley Water’s PS5 submission, discussions with the business and the further information it provided, most of the operating expenditure in 2021-22 is consistent with a prudent business operating efficiently. This reflects our view that for most of Goulburn Valley Water’s forecast controllable operating expenditure:

- the key drivers of most of the overspend against the baseline appear reasonable, and the baseline does not appear to include any items that are non-recurring
- most of the proposed step changes are reasonable and supported by a sound rationale
- it is not reasonable to expect that these step changes could be absorbed by the business within the net growth factor of 1.1 per cent per year.

We recommend the following adjustments to Goulburn Valley Water’s forecast controllable operating expenditure for the PS5 regulatory period:

- a reduction in baseline 2021-22 controllable operating expenditure of \$1.0 million to reflect an increase in maintenance in that year that is non-recurring.
- a reduction in proposed step changes by \$9.0 million in relation to its proposed customer willingness to pay projects.

Table 3.4: Recommended adjustments – controllable operating expenditure (\$ 1 January 2023, millions)

	2023-24	2024-25	2025-26	2026-27	2027-28
<b>Forecast controllable operating expenditure</b>	<b>53.12</b>	<b>53.92</b>	<b>55.14</b>	<b>57.77</b>	<b>57.12</b>
<b>Recommended adjustments:</b>					
Baseline – remove increased maintenance costs	0.98	0.99	1.01	1.02	1.04
Step change – Customer willingness to pay projects	1.80	1.80	1.80	1.80	1.80
<b>Total recommended adjustments</b>	<b>2.78</b>	<b>2.79</b>	<b>2.81</b>	<b>2.82</b>	<b>2.84</b>
<b>Adjusted total operating expenditure</b>	<b>50.34</b>	<b>51.12</b>	<b>52.33</b>	<b>54.95</b>	<b>54.28</b>

## 4 CAPITAL EXPENDITURE ASSESSMENT

### 4.1 Overview of assessment approach

The Commission’s Guidance Paper states that forecast capital expenditure is:

*.... capital expenditure that would be incurred by a prudent service provider acting efficiently to achieve the lowest cost of delivering service outcomes, taking into account a long-term planning horizon (prudent and efficient forecast capital expenditure).<sup>9</sup>*

We have assessed Goulburn Valley Water’s proposed capital expenditure program against the criteria set out in Figure 4.1.

Figure 4.1: Capital expenditure assessment criteria

Assessment of capital program
<ul style="list-style-type: none"><li>• Link to customer service outcomes, regulatory obligations and risk management</li><li>• Comparison of forecast and actual capital expenditure</li><li>• Reliability of cost estimation</li><li>• Deliverability of capital program</li></ul>
Assessment of major capital projects and programs
<ul style="list-style-type: none"><li>• Major capital projects and programs are clearly justified</li><li>• Proposed delivery solution is reasonable</li></ul>

Having regard to these criteria, we have also considered whether any adjustments to the proposed expenditure forecast would be considered appropriate, material and justified.

We have assessed Goulburn Valley Water’s forecast capital expenditure for the PS5 regulatory period focusing primarily on a review of asset management, capital planning and prioritisation processes and how they have been applied. Due to the nature and quantum of Goulburn Valley Water’s proposed capital projects and program we reviewed most of the capital project spend in detail.

<sup>9</sup> Essential Services Commission, 2023 Water Price Review: Guidance Paper, August 2022 Amendment, p.33.

Our assessment is based on a review of the information contained in Goulburn Valley's PS5 submission and responses to additional information requests we raised based on the above criteria.

Goulburn Valley Water's PS5 submission provided some context and justification in relation to the forecast capital expenditure increase and associated drivers but lacked sufficient detail for a detailed review of the projects and programs. We requested additional information to further test the justification for the forecast increase in capital expenditure for the PS5 regulatory period for a range of projects:

Goulburn Valley Water responded promptly and provided detailed responses to all of our questions. It submitted additional information and documentation, including detailed documentation setting out the capital planning processes used to develop the program, relevant reports, asset renewal and management plans and strategies as well as major project and program business cases.

## 4.2 Assessment of overall capital program

Goulburn Valley Water forecasts that it will deliver most of its capital projects and programs in the PS4 regulatory period for \$175.8 million. This is \$13.2 million (or 8 per cent) more than the \$162.59 million benchmark allowance approved by the Commission for the PS4 regulatory period.

The overspend is primarily driven by three of the top 10 projects which incurred significant cost increases in the order 76 per cent to 178 per cent due to scope additions required to achieve Environment Protection Authority (EPA) works approval as well as an under estimation of costs in the original estimate.

Goulburn Valley Water has forecast capital expenditure of \$245 million for the PS5 regulatory period, which is 39 per cent more than the actual/forecast expenditure in the PS4 regulatory period.

The documents and information submitted by Goulburn Valley Water provide good support and reasonable explanations for most of the increased spend over the PS4 regulatory period.

### 4.2.1 Link to customer outcomes and obligations

The key drivers, projects and programs appear to be well linked to customer outcomes and engagement results, and include:

- renewals totalling \$133.12 million (54 per cent of the PS5 capital expenditure program)

- growth totalling \$33.13 million (13.5 per cent of the PS5 capital expenditure program)
- top 10 major projects totalling \$121.94 million
- three major programs totalling \$25.95 million.

The supporting strategy and business case documents reviewed provide strong justification for most of the projects and programs that underpin the overall capital expenditure program and forecast. They also provide insight into how each element of the program supports Goulburn Valley Water's four key customer promises:

- We will provide reliable water and wastewater services customers can trust
- We will lead action and partner with our communities to grow the region
- We will care for the environment and adapt to a future impacted by climate variability
- We will deliver respectful and responsive customer service, balancing affordability, value for money and fairness.

#### 4.2.2 Underlying processes for developing the program

Goulburn Valley Water has an impressive set of documentation that supports the development of an ambitious capital program. It uses a comprehensive series of procedures, manuals and Asset Management Plan to develop the capital program and establish priorities for its delivery.<sup>10</sup>

These documents assist in identifying and prioritizing the projects included in the submission and factor in:

- assessing risk ratings
- developing project business cases
- ensuring risk is distributed appropriately
- the program of proposed projects being deliverable.

The documents provided are robust and comprehensive and we are satisfied that they would ensure that the above factors are considered in the projects that have been proposed.

<sup>10</sup> Goulburn Valley Water, Capital Portfolio Development and Prioritisation DOC22 96968, Goulburn Valley Water, Goulburn Valley Water, Cost Estimation Guide, Project Management- FINAL QDOC 2 Asset Management Framework DOC21 28147; Asset Management Strategy DOC18 46464.

### 4.2.3 Reliability of cost estimation

Goulburn Valley Water uses a comprehensive Project Cost Estimation Guide to standardise the cost estimation process to achieve a higher level of accuracy and reliability of estimates. Project cost estimates within the submission are set at a P50 level. The aim of the guide is to:

- establish estimating stages and associated requirements
- standardise the approach for providing estimations
- mitigate risks of providing overly enthusiastic or optimistic project costs
- assist in improving estimate reviews and approval processes
- implementation of variance reporting to manage estimation change.

To provide another level of refinement to the costs associated with the major projects, Goulburn Valley Water uses external consultants (GHD & Jacobs) to review the project budgets based on scope, risk and timing. Each of the top 10 major projects have been independently reviewed with a focus on prudence and efficiency.

Renewal programs are estimated by historical costs associated with these works and delivery methods adopted by long term contractors.

The documents provided are considered comprehensive and robust to provide confidence in the estimation of capital costs.

### 4.2.4 Deliverability of capital program

Goulburn Valley Water is currently developing a transformation program to uplift capability within the organisation to deliver an ambitious program of works over the next couple of pricing periods.

Goulburn Valley Water has very detailed and comprehensive documentation that it uses to assist in the delivery and procurement of contractors for the delivery of the program. It has already commenced pre planning and obtaining approvals for several the proposed projects to ensure deliverability within estimated timelines.

All major projects and programs are competitively tendered. Several programs are tendered as term contracts for several years to maximise the opportunity for contractors to submit efficient prices.

We believe that the rigour that Goulburn Valley Water has adopted to deliver the capital works projects and programs is appropriate for the large increase in capital spend.

### 4.3 Assessment of major projects and major programs

Due to the nature and quantum of Goulburn Valley Water's capital projects and program proposed, we reviewed most of the capital expenditure in detail. We reviewed all other programs to the extent that they were considered appropriate based on expected efficient spend associated with a business this size.

We note that all the projects and programs we reviewed demonstrated clear linkages to obligations and customer outcomes.

The following major projects reviewed required greater explanation to determine their prudence and efficient spend.

#### 4.3.1 Scope 2 Emissions Reduction – \$21 million

Goulburn Valley Water has been working towards achieving emissions reduction targets since 2016 as part of its TAKE2 pledge. This was driven by *Water for Victoria* and the Victorian *Climate Change Act 2017*.

In 2022, Victorian water businesses were issued with a revised Statement of Obligations (Emissions Reduction) (SoO (ER)) that recognised the commitment from the *Whole of Government emissions reduction pledge* and brought forward net-zero targets.

Goulburn Valley Water is required to achieve zero Scope 2 emissions by 2025. The earlier adoption of net-zero has resulted in a review and fast track of Goulburn Valley Waters Climate Change Mitigation Strategy (emissions reduction pathway).

Goulburn Valley Water reviewed a range of options to achieve the 2025 target assisted by consulting expertise and has consulted with customers and stakeholders to identify the preferred option. It advised that customers have consistently expressed a preference for asset-based (rather than market based) solutions that provide local benefits and for Goulburn Valley Water to be involved and invested in the solution, rather than stakeholders who pay for the benefit.

As such, Goulburn Valley Water's preferred option has been to construct three 5 MW solar systems at its Tatura, Broadford and Seymour Wastewater Management Facilities. These systems are to be constructed and operational prior to 2025 for Goulburn Valley Water to achieve its 2025 emissions reduction targets.

Goulburn Valley Water has forecast \$21 million of capital expenditure for this project, however escalation of market rates now put the cost estimates for all three systems closer to \$26 million. Goulburn Valley Water has committed to building as many of the three 5 MW systems as possibly within the forecast capital of \$21 million and is currently

undertaking a publicly advertised Expression of Interest process to identify opportunities for efficiencies in cost, technology or project delivery.

A detailed review of the business case for this project, workshop discussions and follow up written explanations provided by Goulburn Valley Water supports our assessment that the project is prudent and efficient.

#### 4.3.2 Nathalia Water Supply Pipeline – \$17.34 million

The Nathalia Water Treatment Plant (WTP) is at the end of its asset life and currently includes obsolete technology. This WTP sources raw water from the Broken Creek, which is extremely poor quality and unreliable for parts of the year. The existing WTP is not capable of producing compliant treated water under the full range of raw water conditions that can eventuate.

The nearby Numurkah WTP has adequate capacity to supply Nathalia and sources water from a higher quality and more reliable raw water source.

Goulburn Valley Water has considered other options such as upgrading the Nathalia WTP but this relies on a poor quality and unreliable supply from Broken Creek, or sourcing supply from another town. Its preferred option is to decommission the Nathalia WTP and construct a pipeline from the Numurkah WTP to service Nathalia.

Our detailed review of the business case for this project, together with workshop discussions and follow up written explanations provided by Goulburn Valley Water supports our assessment that the project is prudent and efficient.

#### 4.3.3 Broadford Water Treatment Plant Upgrade – \$14.56 million

The Broadford and Kilmore WTPs are currently supplied from the Sunday Creek catchment. Availability from Sunday Creek is reducing due to climate change and not considered adequate for the long term due to increasing demand from significant growth in both towns.

A pipeline from the Goulburn River is currently used to supplement supply for both towns and will eventually become the major supply source. In recent dry years the Goulburn River has been the primary source of supply for Broadford for extended periods.

The existing Broadford WTP has a capacity of 6 megalitres per day and has less treatment barriers than most other Goulburn Valley Water WTP's, with no pre-treatment prior to a filter. While the Goulburn River has a greater water supply it is of a lesser and more variable water quality than Sunday Creek and the Broadford WTP needs to be de-rated under some raw water conditions experienced when supplied with Goulburn River water. This then

provides an average capacity of around 4.5 ML per day which is currently sufficient for existing peak day demand.

An upgrade of the Broadford WTP is required to ensure that adequate capacity is available to meet customer demand when utilising Goulburn River water. The risk of failing to meet peak day customer demand is increasing as Broadford is experiencing significant growth. Capacity at the Broadford WTP is forecast to be exceeded when using Goulburn River water by 2025 (within the PS5 regulatory period). The Kilmore WTP is close to needing a capacity upgrade as it services Goulburn Valley Water's fastest growing town.

Since the business case was prepared, Goulburn Valley Water has further reviewed the Health Based Target assessment for Broadford to reflect the recently approved Australian Drinking Water Guidelines. It has also now reviewed the Sunday Creek and Goulburn River catchments under this new health guideline and increased the log reduction value (LRV) required for each catchment category. This means that the LRV shortfall for both for Sunday Creek and Goulburn River has increased to 1.5 and 2.5 respectively and poses an unacceptable risk to human health, requiring action within the PS5 regulatory period.

Long term planning for both Kilmore and Broadford has been combined due to their proximity and shared water resources.

The long-term strategy for Kilmore and Broadford is to upgrade the Broadford WTP in stages and extend a pipeline from Broadford to Kilmore to avoid the need for future upgrades of the Kilmore WTP which is on a land constrained site and remote from the Goulburn River supply source.

The first stage of upgrade of the Broadford WTP (new 4.5 ML per day – this project) is required during the PS5 regulatory period. The second stage (new 4.5 ML per day plant and decommissioning of existing direct filtration plant) is scheduled for the PS6 regulatory period.

A range of project options were considered including different treatment technologies, addition of pre-treatment and selective raw water harvesting. The option selected to install Dissolved Air Flotation Filtration (DAFF) technology and eventually decommission the existing plant ensures that water supply security can be maintained by utilising Goulburn River water and health-based targets for drinking water safety can be met.

A detailed review of the Business Case, workshop discussions and follow up written explanations provided by Goulburn Valley Water has clarified that the project is prudent and the overall proposal staging over two pricing periods efficient.



#### 4.3.4 Shepparton Office Renewal Project – \$13.8 million

Goulburn Valley Water advise that the office accommodation in Shepparton was developed approximately 30 years ago and has not had any substantial refurbishment or modernisation over this period.

The current office accommodation is currently spread across two sites:

- Fryers Street head office in the Shepparton Central Business District which accommodates approximately 100 staff
- Shepparton Operations Centre (which is approximately two kilometres east of the Central Business District) which is an operational site, depot and office site that accommodates approximately 40 office staff and 35 operational staff.

Goulburn Valley Water advise that the office accommodation requires significant works to address compliance issues, modernise the facilities and provide improved amenity for staff and visitors (customers, stakeholders, and partners/contractors). Any major refurbishment works would trigger the need to address building code compliance issues.

Goulburn Valley Water has identified that the office space requirement is approximately 2,600m<sup>2</sup>. This office space would permit approximately 80 staff working from the office at any one time. This would support Goulburn Valley Water's Flexible Working Policy and enables approximately 140 staff previously located across the Fryers Street and Shepparton Operations Centre offices to be based from a single office location.

Goulburn Valley Water has reviewed a range of project options which include upgrading the Fryers Street site or leasing options. The preferred option from a multi-criteria analysis is currently a lease option for a building on a development site. The second placed option which currently has more certainty over delivery and costs is upgrading the Fryers Street site.

Goulburn Valley Water has confirmed that further work is required with the developer of the lease site to provide more certainty in pricing for the lease option. Goulburn Valley Water is currently further developing both the preferred lease option and the Fryers Street option prior to making a final decision on which option to proceed with. Further development of the Fryers Street upgrade option and the preferred lease option from the business case is currently in progress.

Goulburn Valley Water advise that the business case is expected to be updated in early 2023 with the additional options work. This will include updating cost estimates for the two options and the multi-Criteria Assessment. The preferred option is currently scheduled to be approved at the April 2023 Board meeting.

The Fryers Street option (higher capex) has less impact on customer prices than the lease option (higher operating expenditure).

The Fryers Street option has been included in the capital program for the PS5 regulatory period on the basis that the Fryers Street option:

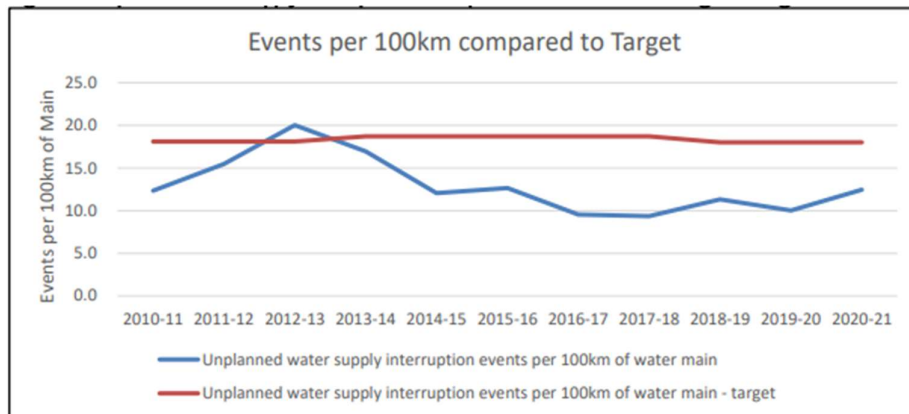
- was second placed in the Multi Criteria Assessment.
- has more certainty than the lease option at this point of project development.
- has less impact on customer prices.

We have conducted a detailed review of the Business Case, workshop discussions and follow up written explanations provided by Goulburn Valley Water and as the preferred option has not yet been determined we don't believe that it is prudent to include a significant capital expense within this pricing period.

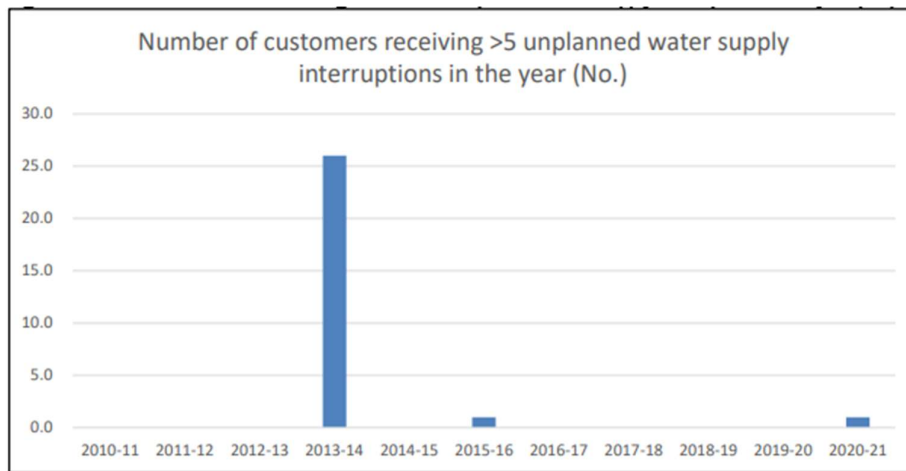
We recommend that the project is deferred until a firm option is confirmed.

#### 4.3.5 Watermain Replacement Program – \$13.75 million

Goulburn Valley Water advises that it currently spends between \$2 to 2.5 million per year on its watermain replacement program which has been successful in achieving targets for watermain failures and unplanned supply interruptions for customers as indicated in the tables below. Data over the last decade indicates that investing in the water main replacement program has resulted in a corresponding decrease in water main failure rates and unplanned interruptions of water supply as indicated in the tables below.



Source: Goulburn Valley Water DOC16 61650 Asset Class Plan - Water Main



Source: Goulburn Valley Water DOC21 85076 Project Justification Report - Water Main Replacement Program 2024-2028

The current investment of \$2-2.5 million per year manages the failure rate to an acceptable level of less than 18 with a current unplanned interruption of approximately 12 per 100 km.

Goulburn Valley Water has now proposed to increase this spend to \$2.75 million per year to accommodate increases in materials and contractors' expenses. Goulburn Valley Water has also cited that some more difficult watermain replacements will be required within this pricing period, which will increase costs.

We have reviewed the business case and supporting data that was provided by Goulburn Valley Water. Although Goulburn Valley Water has advised that the budget prescribed for this program is based on detailed asset condition assessment and asset lifecycle modelling, as well as on application of efficient engineering design and construction practices, we noted in our review that this level of proposed expenditure (\$2.75 million per year) represented one of three alternative scenarios considered. Although the low-cost scenario modelled, which assumed \$2.0 million expenditure per year, was projected to result in an increased interruption rate of around 12 per cent by 2028, the information we have reviewed suggests that interruption rates would still be below target levels at that time. On this basis and noting that interruption rates have consistently been below target levels over the last decade, we consider that a spend of \$2 million per year would provide sufficient protection in meeting Goulburn Valley Water's targets.

In this regard we recommend that \$0.75 million per year (\$3.75 million total) be removed from the capital submission provided by Goulburn Valley Water.

#### 4.3.6 Shepparton Operations Centre New Clear Water Storage – \$11.74 million

This proposed project entails the construction of a new 36ML clear water storage (CWS) tank at the Shepparton Operations Centre (SOC). The proposed 36ML CWS will provide balancing storage and emergency storage at times when the output from the Shepparton Water Treatment Plant (WTP) is less than instantaneous demand

The Shepparton water network currently has limited clear water storage capacity. The Goulburn Valley Water standard is to provide eight hours of available emergency storage on a peak day to provide time to respond to any events where the Water Treatment Plant (WTP) may not be operational. This project will provide that level of security.

The project provides clear linkages to obligations and customer outcomes but lacked clarity to the overall timing of the supply and capacity available in the system. A detailed review of the Business Case, workshop discussions and follow up written explanations provided by Goulburn Valley Water has clarified that the project is prudent and overall proposal efficient.

#### 4.3.7 Mansfield Raw Water Pipeline Upgrade – \$11.25 million

There are capacity and asset issues within the Mansfield water supply system. Goulburn Valley Water has advised that the system has only marginally be able to meet peak summer demands.

This project entails the construction of a raw water pipeline upgrade from Ritchies Reservoir to the Mansfield WTP with a capacity of 130 L/s that in future will be converted to a potable water pipeline to service the Mansfield township.

The current raw water main and pump station that supplies raw water from Ritchies Reservoir to the Mansfield WTP has a capacity 40 L/s. Currently, peak raw water demand is 51 L/s. To meet these demands, Goulburn Valley Water is currently using a decommissioned gravity main to provide the additional 8-10 L/s, however there are frequent bursts and repairs needed when this main is in use. Goulburn Valley Water advise that they typically fix up to 100 leaks per year on this main, all occurring across the summer period, taking up significant operator resources during this busy time. Also, as the main is “technically” decommissioned, there is no guarantee that the asset condition will permit continued use long term.

The Mansfield WTP is also at capacity and requires an upgrade. Due to space limitations on its current site, the preferred option is to relocate and construct a new WTP at the Ritchie Reservoirs site. This would require the construction of a potable water pipeline into

Mansfield, which would follow the same alignment at this proposed raw water pipeline. As such, this proposed raw water pipeline will be sized to allow conversion to a potable water pipeline (130 L/s) as part of the Mansfield system when the WTP is moved and upgraded.

This project is to be completed within the PS5 regulatory period to address the supply risk, eliminate operational pressures and costs associated with maintaining the decommissioned main and allow for relocation of the new WTP.

A detailed review of the Business Case, workshop discussions and follow up written explanations provided by Goulburn Valley Water has clarified that the project is well planned, utilises options that have deferred capital expenditure and is prudent and efficient.

#### 4.3.8 Mansfield Water Treatment Plant Upgrade – \$5.08 million

The Mansfield WTP was designed as a 6 ML/d plant. The treatment technology is old and is obsolete, which means replacement parts, particularly filter media, are extremely difficult to source. Since the WTP was constructed, water quality targets have become more stringent, and the existing technology cannot achieve these without the plant being de-rated. In addition, the condition of the main treatment unit, the adsorption clarifier, is extremely poor and the plant must be further de-rated to minimise further structural damage and complete asset failure. These issues result in the WTP currently operating at only 4.2 ML/d capacity.

The WTP is insufficient to supply the growth occurring in the township of Mansfield. Goulburn Valley Water has advised that in extended periods of hot weather and corresponding peak water use customers are being asked to conserve water and water has been carted to address capacity shortfalls.

Peak demand is expected to exceed WTP capacity by 2023. In 2021, a temporary Dissolved Air Flotation (DAF) unit, on loan from Gippsland Water, was set up as pre-treatment. The DAF provides an additional 2 ML/d capacity, bringing the total WTP capacity up to 6.2 ML/d. However, Gippsland Water requires the DAF unit to be returned by 2025 and cannot be relied on as a permanent solution.

In 2020, Goulburn Valley Water conducted a condition assessment of the WTP which identified that the major components had extremely limited life. Most of these components were assessed as needing to be abandoned or replaced (rather than repair/remediated). As such major asset replacement works would be required within the PS5 regulatory period, along with capacity upgrades.

Due to the condition of the WTP and its capacity constraints to service growth an upgrade is warranted within this pricing period. Due to space constraints and asset condition, the preferred option adopted by Goulburn Valley Water is to relocate the WTP to the Ritchies Reservoir site. Goulburn Valley Water has commenced land planning and construction of the WTP is planned to commence in the PS5 regulatory period and be completed in the PS6 regulatory period.

A detailed review of the Business Case, workshop discussions and follow up written explanations provided by Goulburn Valley Water has clarified that the project is well planned, utilises options that have deferred capital expenditure and is prudent and efficient.

#### 4.4 Summary of capital expenditure assessment

The capital component of Goulburn Valley Water’s PS5 submission provided a detailed breakdown of the proposed capital expenditure for the PS5 regulatory period. Along with responses provided by Goulburn Valley Water to the issues raised for further investigation, this provides a reasonable level of confidence that most of the proposed capital expenditure program is justified, prudent and robust, and the majority can be delivered by Goulburn Valley Water in the PS5 regulatory period.

As a result, we recommend adjustments to the forecast capital expenditure for the PS5 regulatory period as follows:

- the Water Main Renewal Program be adjusted by \$3.75 million (\$0.75 million per year)
- the Shepparton Corporate Office Upgrade be adjusted by \$13.8 million.

Table 4.1: Recommended adjustments – capital expenditure (\$ 1 January 2023, millions)

	2023-24	2024-25	2025-26	2026-27	2027-28
Forecast capital expenditure	57.80	60.23	48.07	40.59	38.32
<b>Recommended adjustments:</b>					
Shepparton Office Renewal Project	6.30	7.50			
Water Main Renewal Program	0.75	0.75	0.75	0.75	0.75
<b>Total recommended adjustments</b>	<b>7.05</b>	<b>8.25</b>	<b>0.75</b>	<b>0.75</b>	<b>0.75</b>
<b>Adjusted total controllable operating expenditure</b>	<b>50.75</b>	<b>51.98</b>	<b>47.32</b>	<b>39.84</b>	<b>37.57</b>

## APPENDIX A: CROSS-INDUSTRY OPERATING EXPENDITURE ISSUES

### Overview

There are several drivers of increased operating expenditure over the current PS4 regulatory period and/or forecast for the PS5 regulatory period that are common across water businesses. While the base-step-trend methodology does not involve a 'bottom up' or category-by-category assessment of expenditure, we consider it important to ensure that we have regard to the key drivers and trends in baseline increases and/or proposed step changes in assessing each business's proposal.

This appendix reviews some of those expenditure drivers in more detail, including in relation to:

- energy
- IT
- labour.

It also presents some comparative data submitted to the Commission by each of the water businesses as part of their respective Price Review Models. Section 3.2 of this report outlines the implications of this analysis for our approach.

### Energy expenditure

#### Background

Energy costs have been increasing in recent years. This has been driven by several factors, including increases in the wholesale price of electricity, the impact of the Ukraine war on global energy prices, increasing network costs and the costs associated with the transition to renewable energy. This has impacted actual energy costs for the water businesses over the current PS4 regulatory period. The uncertainty and volatility in the electricity market has also made it more challenging for water businesses to forecast electricity costs for the PS5 regulatory period. The Victorian water businesses have also all committed to sourcing their energy requirements from 100 per cent renewable sources by 2025.

#### The Schneider report

The Intelligent Water Network is a collaboration between the Victorian water businesses, VicWater and the Department of Energy, Environment and Climate Action (DEECA, formerly the Department of Environment, Land, Planning and Water (DELWP)). The Intelligent Water Network engaged Schneider Electric Energy and Sustainability Services (Schneider) to



provide forecast electricity prices for the PS5 regulatory period. Victorian Government Purchasing Board reforms have mandated use of the State Purchase Contracts for electricity (large and small market) managed by the Department of Treasury and Finance and Schneider. We understand that some water businesses are already using these contracts while others are in the process of transitioning to these new contracts.

The Schneider report, finalised in March 2022, addressed the following key assumptions:

- energy commodity rates (peak and off-peak)
- Large-scale Generation Certificates
- Small-scale Technology Certificates
- Victorian Energy Efficiency Certificates
- network forecast charges
- market operator charges.

It appears that all the water businesses have used the Schneider report as the basis for their forecast electricity costs for the PS5 regulatory period. We have undertaken a high level review of the Schneider report and the methodology and assumptions used (including data sources) appear reasonable. We have also examined how it has been applied by each business.

#### Industry emissions reduction target

Under the Water for Victoria Plan, the Victorian water sector has committed to achieving net zero emissions by 2035. The sector has also committed to sourcing 100 per cent of its electricity needs from renewables by 2025. The Statement of Obligations (Emission Reduction) made pursuant to the *Water Industry Act 1994* requires all Victorian water businesses to:

- prioritise the implementation of actions that avoid or reduce emissions resulting from its operations
- achieve emission reductions efficiently, making full use of the time available to do so.<sup>11</sup>

In pursuing these reductions, Section 3.2 of the Statement of Obligations (Emission Reduction) encourages water businesses to:

- pursue actions and targets at the lowest possible cost, seeking to minimise any impact on water customer bills

<sup>11</sup> Statement of Obligations (Emission Reduction), Section 3.1.

- have regard to any price impacts on their vulnerable customers.

Five yearly targets have been set under the Statement of Obligations on the transition to net zero by 2035. This means that a business that has committed to achieving an annual emissions target in a target year (for example, by 1 July 2030) must ensure that it keeps its emissions at or below that level in all subsequent years leading up to their next five-yearly emissions target (for example, 1 July 2035). The requirement to source 100 per cent of their electricity from renewable sources applies from 2025 onwards.

Table A1 shows the baseline level of emissions for each water business and the reductions required by the 2024-25 financial year. It shows that the reductions required by each business vary materially depending on their current baseline.

Table A1: Victorian water businesses emission reduction targets

Business	Emissions baseline	Annual reportable emissions 2024-25 (tonnes CO <sub>2</sub> e)	% reduction from baseline
Barwon Water	42,986	15,926	-63
Central Highlands Water	18,351	14,738	-19.6
Coliban Water	33,604	29,304	-12.8
East Gippsland Water	8,272	6,496	-21.5
Gippsland Water	42,021	32,080	-23.7
Goulburn Valley Water	49,575	37,416	-24.5
Grampians Wimmera Mallee Water	20,017	16,244	-18.8
Lower Murray Water	44,188	24,708	-44.1
South East Water	41,744	23,016	-44.9
South Gippsland Water	7,663	6,480	-15.4
Southern Rural Water	1,559	0	
Wannon Water	31,626	18,976	-40
Westernport Water	6,062	5,598	-7.7
Yarra Valley Water	32,004	11,664	-63.6

Source: <https://www.water.vic.gov.au/climate-change/reduced-emissions-in-the-water-sector/net-zero-emissions-by-2050>

The businesses must then transition over the following five years to their next target (for the 2029-30 financial year). All businesses are required to achieve net zero by 2034-35, although some businesses are forecasting to achieve net zero by 2029-30.

It is evident from water business PS5 submissions and discussions with the business that different initiatives are being employed to achieve the 2025 target including one or more of the following:

- direct capital investment in 'behind the meter' renewable capacity (for example, installing solar photovoltaic (PV) at water treatment plants)
- purchasing energy generated from renewable sources (greenpower), which can involve an additional cost compared to conventional sources
- purchasing offsets, such as Large Generation Certificates.

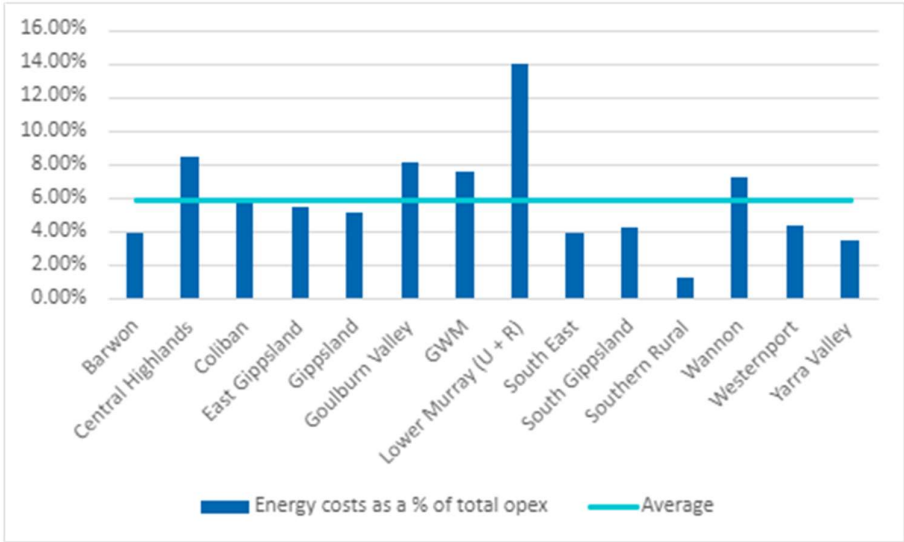
The most appropriate strategy depends on the needs and circumstances of the business, including the feasibility (and cost) of direct action measures such as solar PV.

Some businesses have proposed step changes in operating expenditure for additional costs associated with the above initiatives.

#### Cross-sector expenditure trends

Overall, proposed electricity expenditure for PS5 accounts for a relatively small proportion of controllable operating expenditure, averaging around 6 per cent, as shown below.

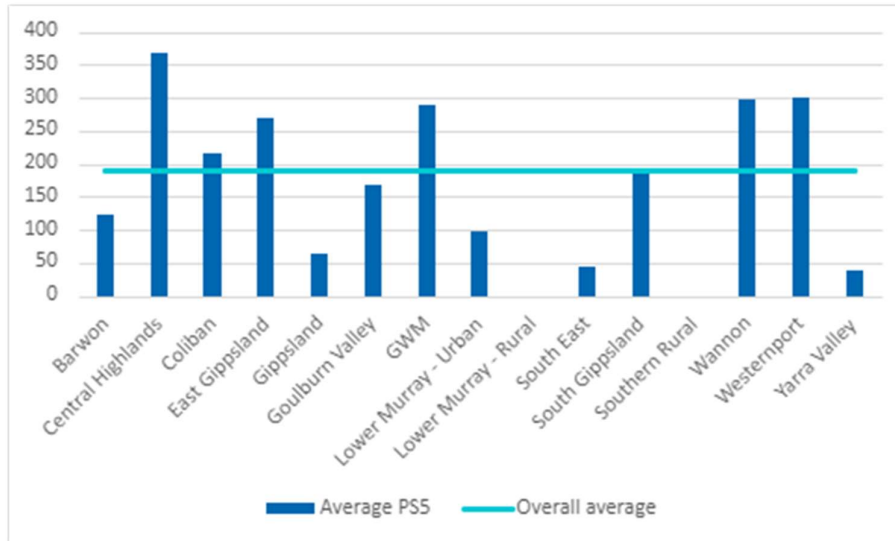
Figure A1: PS5 forecast total energy expenditure as a percentage of total controllable operating expenditure (%)



Source: Victorian water businesses, 2023 Price Review Models.

For the urban businesses, Figure A2 shows electricity expenditure per volume of water delivered (in ML).

Figure A2: PS5 forecast energy costs per volume of water delivered (\$ per ML, 1 January 2023)

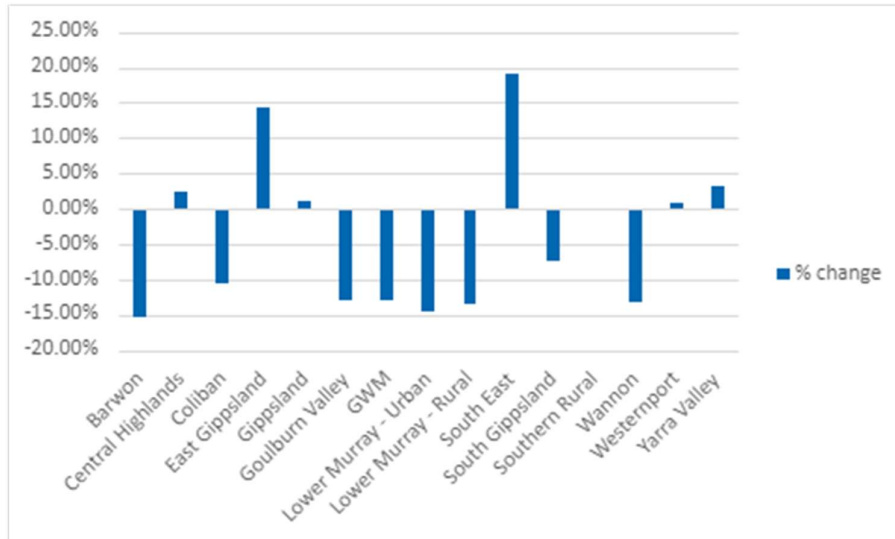


Source: Victorian water businesses, 2023 Price Review Models.

As noted above, energy costs have been increasing over the current PS4 regulatory period. However, most businesses are forecasting a decline in energy costs in the PS5 regulatory period for several reasons, including efficiency initiatives and targets. Figure A3 shows the change between total actual PS4 energy expenditure<sup>12</sup> and proposed PS5 energy expenditure for each business.

<sup>12</sup> Note that the water businesses' Price Review Models submitted to the Commission for this PS5 review include updated forecasts for financial year 2022-23.

Figure A3: Total energy expenditure: total proposed for PS5 regulatory period less total actual for PS4 regulatory period (%)



Source: Victorian water businesses, 2023 Price Review Models. Note PS4 actuals include an updated forecast for the 2022-23 financial year.

## IT expenditure

### Background

Several businesses have experienced increases in IT-related operating expenditure in the PS4 regulatory period, which have impacted the 2021-22 baseline, and/or are proposing step changes for IT expenditure in the PS5 regulatory period. This is reflected in three main categories:

- Cloud-based services
- cyber security
- other IT expenditure.

### Cloud-based services

Consistent with trends in other businesses and industries, most of the water businesses are either in the process of transitioning, or have transitioned, to Cloud-based services (also referred to as Software as a Service (SaaS)). Rather than each business having all its own hardware and software infrastructure on-site, this is a software distribution model where key applications are centrally hosted via a third-party provider. Services are then delivered via the Cloud and the third-party provider manages all hardware and software

requirements. Users then contract and pay for services based on a licence or subscription fee model.

Several water businesses source key applications from Technology One. In 2021 Technology One announced that it will commence transitioning all on-premises customers to its SaaS platform. Based on its timetable, it will cease providing on-premises support services to customers on 1 October 2024.<sup>13</sup>

A key implication of the change to this different service delivery model is that expenditure formerly categorised as capital expenditure will now be characterised as operating expenditure (i.e. relevant licence and subscription fees). Holding all else constant, this will be reflected in a reduction in capital expenditure and an uplift in operating expenditure (noting that this is not a 'dollar for dollar' substitution and that the profile for capital expenditure will have depended on the investment needs of the business). In terms of the impact on operating expenditure, this is evidenced by several businesses either attributing SaaS costs as a driver of the baseline uplift or proposing as a step change.

Additional costs may be incurred in the process of transitioning to Cloud-based services. In this regard, we understand that the Commission has advised the water businesses that it will consider capitalising transition-related expenditure where appropriate. Where proposed, this is considered as part of the review of each business's capital expenditure.

### Cyber security

The need to upgrade cyber security has accelerated over the PS4 regulatory period and is also now receiving increased scrutiny from government agencies, customers and the wider community. Activities range from ensuring that water assets and operations remain resilient to cyber attacks through to protecting customer data.

Victorian water businesses are required to comply with several requirements and standards including:

- the Victorian Protective Data Security Framework established pursuant to the *Privacy and Data Protection Act 2014*, which sets out mandatory standards for Victorian public sector agencies and bodies
- Victoria's Cyber Security Strategy 2021
- the Victorian Critical Infrastructure Resilience Framework, with water one of the eight critical infrastructure sectors. This has driven the requirement for a Water Sector Resilience Plan. Cyber security is one of several risks identified under that

<sup>13</sup> <https://technologyonecorp.com/saas/pathway-to-saas#> {Accessed 13 December 2022}.

framework, which also extends to climate-related risks, pandemics and key supply chain disruptions. DEECA now leads the Water Sector Resilience Network, which aims to collaborate on matters relating to resilience by sharing information and experiences

- Implementation of the recommendations of the Victorian Auditor-General's Office performance audit of Security of Water Infrastructure Control Systems.<sup>14</sup>

Cyber security initiatives can be expected to continue to develop and evolve over the PS5 regulatory period.

#### Other IT-related expenditure

Depending on the functionality and maturity of each water business's current IT-architecture, other business-specific expenditure may be incurred in reviewing and upgrading this capability.

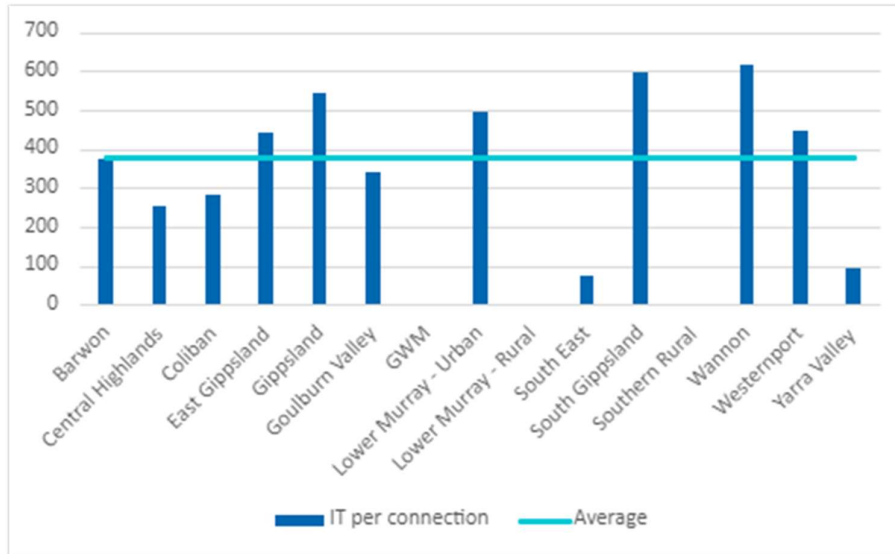
#### Cross-sector expenditure trends

As part of the Commission's Price Review Model, water businesses are required to report on total IT expenditure. For urban networks, this includes metrics such as IT expenditure per average water connection. Figure A4 shows that most of the water businesses with a higher average expenditure per water connection are smaller organisations, suggesting the presence of economies of scale.

<sup>14</sup> Victorian Auditor-General's Office 2019, *Security of Water Infrastructure Control Systems*, 9 May.



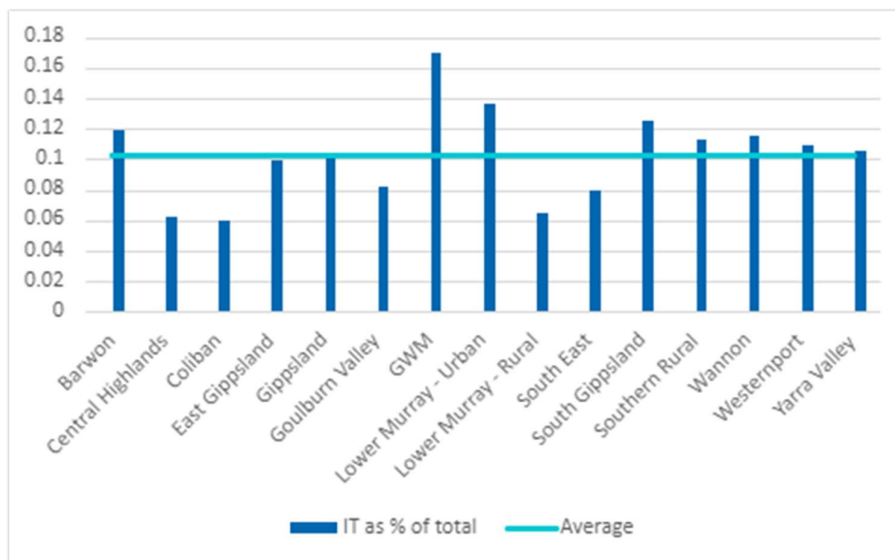
Figure A4: PS5 forecast: ICT operating expenditure per water connections (\$ per average number of water connections, 1 January 2023)



Source: Victorian water businesses, 2023 Price Review Models.

Figure A5 shows total forecast PS5 IT operating expenditure as a percentage of total controllable operating expenditure. This includes the rural businesses.

Figure A5: PS5 forecast: ICT operating expenditure as a percentage of total controllable operating expenditure (%)



Source: Victorian water businesses, 2023 Price Review Models.

## Labour costs

### Background

Labour costs tend to account for the largest proportion of operating expenditure for the water businesses. On average across the businesses, labour costs account for just under 50 per cent of total forecast controllable operating expenditure for the PS5 regulatory period as shown below.

Labour costs are a function of employee numbers (measured in terms of FTEs) and the costs of remuneration (including salaries, wages and other employee-related expenses).

### Labour force

The size of each organisation's labour force varies according to their business and operating environment, including their geographical location and service area (which, amongst other things, will influence the size and dispersion of field staff).

Some businesses supplement internal labour resources with external contractors – this can be a temporary response to labour shortages, a need for specialist expertise that does not reside in-house and/or decisions to outsource certain activities. The optimal balance between internal and external labour will be a management decision for the business.

### Remuneration

A key driver of remuneration is the water business's Enterprise Agreement (EA), which typically have four-year terms. Each water business is likely to have an EA expiring and a new EA commencing during the PS5 regulatory period. As a result, each water business needs to forecast the impact of any anticipated change in EA terms.

Some common themes that have emerged in terms of labour costs over the PS4 regulatory period.

- First, Victorian public sector entities must ensure that executive remuneration complies with any determinations and guidelines issued by the Victorian Independent Remuneration Tribunal. They must also continue to comply with the requirements of the Public Entity Executive Remuneration Policy (PEER).<sup>15</sup> The Premier typically announces an annual adjustment guideline rate for adjustments

<sup>15</sup> Refer: <https://vpvc.vic.gov.au/executive-employment/victorian-public-entity-executive-employment/public-entity-executive-handbook/4-remuneration/> {accessed 14 December 2022}.

to executive remuneration. For 2021-22 and 2022-23, that rate was 1.5 per cent. Several businesses refer to the application of this rate in their PS5 submissions.

- Second, several of the regional water businesses have commented on challenges in attracting and retaining staff. This appears to have become a more significant problem for some businesses as the labour market tightens following the economic recovery from the COVID-19 pandemic. Some businesses have cited the need to offer higher salaries (including above the EA rate) to attract and retain staff. This appears to have underpinned increases in baseline expenditure as well as step changes for the PS5 regulatory period. Changes have also occurred in terms of employee expectations and practices around flexible working.

These challenges appear to be consistent with overall labour market trends in recent years, as well as the outlook. This reflects a material shift relative to the subdued outlook for wages that prevailed at the time of the last price review, as summarised below.

#### Labour market conditions and wage growth pressures

When the Commission made its determinations for the water businesses in 2018, Victoria had been experiencing a period of subdued wages growth, consistent with the experience of most other advanced economies.<sup>16</sup> The forecasts underpinning the 2018-19 State Budget was for wages to grow by 2.5 per cent in 2018-19 and 2.75 per cent in 2019-20.<sup>17</sup>

Actual growth in the Victorian Wage Price Index (WPI) was 2.6 per cent to 30 June 2019. It then contracted as COVID-19 impacted the economy, falling to 1.5 per cent for the year ended 30 June 2021 and then recovering to 2.3 per cent to 30 June 2022.<sup>9</sup> In terms of industry trends, for Australia, the annual change in total hourly rates of pay for the Electricity, Gas, Water and Waste Services sector was 2.9 per cent to 30 June 2022, compared to 3.2 per cent for all industries.

The most recent 2022-23 Victorian State Budget forecast was for an increase in the WPI of 2.75 per cent in 2022-23. It is then expected to increase further to 3.00 per cent per year to 2025-26 as the economy expands and labour market conditions remain tight.<sup>18</sup> The Reserve

<sup>16</sup> State of Victoria 2018, Strategy and Outlook 2018-19 Budget Paper No. 2, Department of Treasury and Finance, p.23.

<sup>17</sup> State of Victoria 2018, Strategy and Outlook 2018-19 Budget Paper No. 2, Department of Treasury and Finance, p.22.

<sup>18</sup> State of Victoria 2022, Strategy and Outlook 2022-23 Budget Paper No. 2, Department of Treasury and Finance, p.32.

Bank of Australia (RBA) is forecasting stronger growth in the WPI for Australia, increasing to 3.7 per cent by 30 June 2023 and then rising to 3.9 per cent by December 2024.<sup>19</sup>

This presents a mixed picture of wages growth over the current PS4 regulatory period, which was significantly impacted by the COVID-19 pandemic. The current outlook is more bullish, driven largely by the tight labour market and high inflation, with spare labour market capacity at record lows.<sup>20</sup> In its November 2022 Statement on Monetary Policy, the RBA also observed that job mobility is higher than the years preceding the pandemic and is now around the levels observed prior to the Global Financial Crisis. It also noted the considerable uncertainty associated with the current economic outlook.

Overall, this highlights the current wage growth pressures that many of the water businesses has observed. The data doesn't enable any insights into the trends in regional labour markets in Victoria or specific pressures that might emerge for the skillsets required by the water businesses. The duration and extent of these wage growth pressures is also highly uncertain.

#### Superannuation Guarantee Charge

The compulsory Superannuation Guarantee Charge (SGC) has been progressively increasing to a rate of 12 per cent by 1 July 2025. This has been identified by some businesses as contributing to increases in labour costs.

The extent to which this will result in an increase in labour costs for employers depends on the nature of the employment arrangement. For example, for salaried workers whose salary package is inclusive of superannuation, the increase in the SGC may be offset by a reduction in take-home pay, which would result in no net change in costs to the employer. In other cases, where employees are on a 'salary plus superannuation' arrangement, it will result in an increase in total remuneration for the employee, which will increase the cost to the employer.

The impact of this will therefore vary between businesses and potentially within businesses given employees may be subject to different types of arrangements.

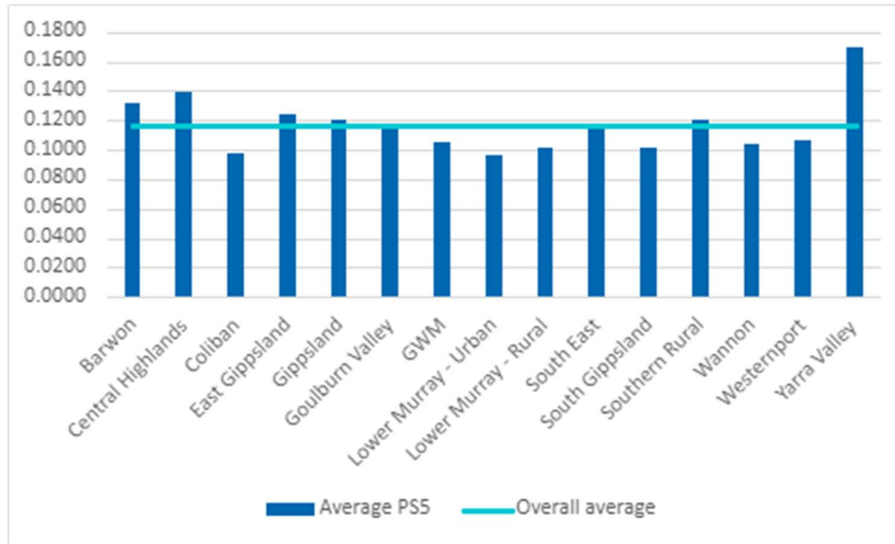
#### Cross-sector expenditure trends

Businesses are required to report several metrics on labour costs in the Commission's Price Review Model, including FTEs and unit labour costs. Key metrics are summarised below.

<sup>19</sup> Reserve Bank of Australia 2022, Statement on Monetary Policy, November.

<sup>20</sup> Reserve Bank of Australia 2022, Statement on Monetary Policy, November.

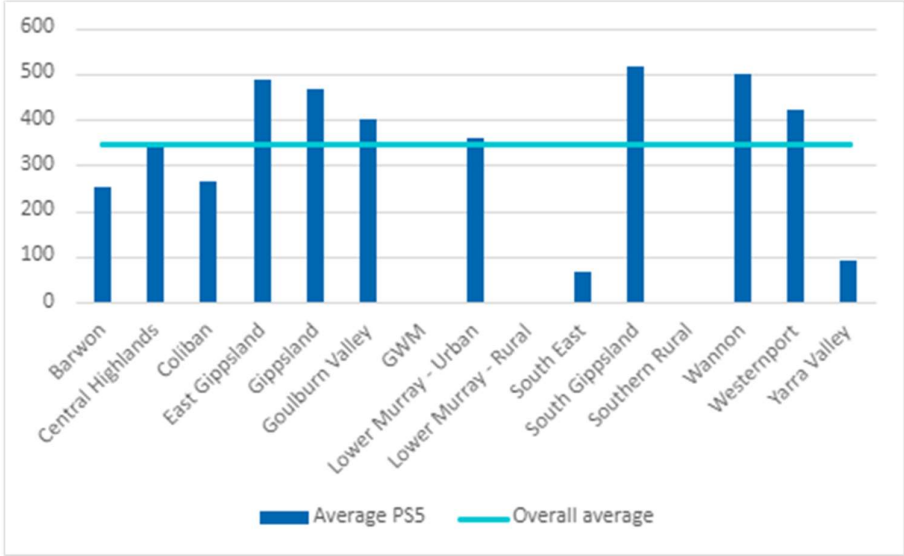
Figure A6 shows average unit cost per FTE as forecast for the PS5 regulatory period, as reported by the businesses. Figure A6: PS5 forecast average unit cost per FTE (\$ million per FTE, 1 January 2023)



Source: Victorian water businesses, 2023 Price Review Models.

Based on forecast labour costs for the water businesses for the PS5 regulatory period, Figure A7 shows the average labour cost per water connection (based on the average of the forecast number of connections over the period). It shows that most of the water businesses with a higher average expenditure per water connection are smaller organisations, suggesting the presence of economies of scale.

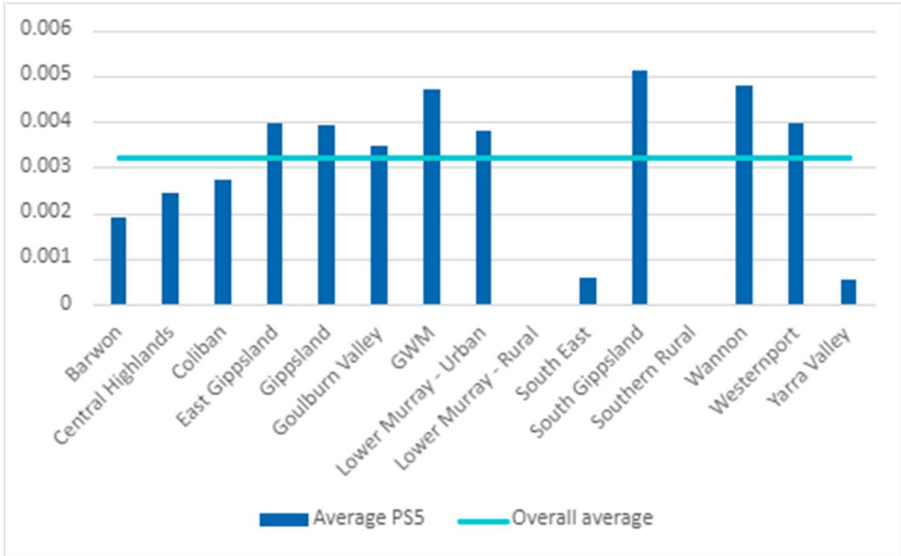
Figure A7: PS5 forecast: Average labour cost per water connection (\$ per average number of water connections, 1 January 2023)



Source: Victorian water businesses, 2023 Price Review Models.

As expected, this shows material scale economies for the larger businesses. This is similarly evidenced based on the average number of FTEs per water connection (see Figure A8).

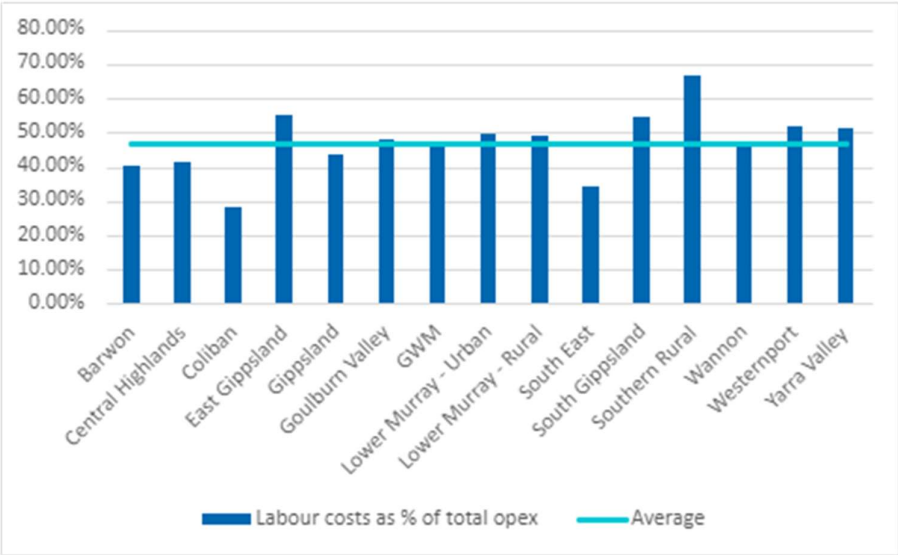
Figure A8: PSS forecast average number of FTEs per water connection



Source: Victorian water businesses, 2023 Price Review Models.

Figure A9 shows forecast labour costs as a percentage of total controllable operating expenditure for each of the water businesses over the PSS regulatory period.

Figure A9: PS5 forecast labour costs as a percentage of total controllable operating expenditure (%)



Source: Victorian water businesses, 2023 Price Review Models.



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