February 2023

GWMWater: Review of expenditure forecasts

2023 Water Price Review

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Table of Contents

Glossary

Term	Definition
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
IPD	Integrated Planning and Delivery
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 14 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 GWMWater's forecast operating and capital expenditure based on the guidelines contained in the Commission's 2*023 Water Price Review: Guidance Paper.*

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

Forecast operating expenditure

Overall, GWMWater has proposed an average net increase in controllable operating expenditure (growth less efficiency factor) of –0.8 per cent per year for the PS5 regulatory period. This applies to both the urban and rural parts of the business. When comparing this net result against other water businesses, GWMWater is second out of 13 urban water businesses subject to this review.

GWMWater's forecast operating expenditure reflects:

- baseline 2021-22 expenditure of $35.31 million, which is $0.8 million (or 2.4 per cent) above the benchmark allowance approved by the Commission in the previous price review
- total step changes to the baseline of $4.3 million across the regulatory period.

Based on GWMWater's PS5 proposal, the further information received and discussions we have had with the business, we have formed the view that the forecast controllable operating expenditure is consistent with a prudent business that operates efficiently and does not require any further adjustments. This reflects our assessment that:

- the key drivers of the increased expenditure above the ESC's benchmark allowance for 2021-22 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 –0.8 per cent per year.

As a result, we have not recommended any adjustments to GWMWater's forecast controllable operating expenditure for the PS5 regulatory period.

Forecast capital expenditure

GWMWater has forecast capital expenditure of $203.6 million for the PS5 regulatory period. This is:

- 2 per cent less than its actual capital expenditure (including 2022-23 forecast) over the PS4 regulatory period
- 104 per cent more than the forecast capital expenditure outlook for the PS5 regulatory period that it included in its PS4 submission.

A key driver of GWMWater's higher levels of capital expenditure over both the PS4 and PS5 regulatory periods is the continuation of government co-founded major water supply projects.

Based on the pricing submission and subsequent information and responses provided by GWMWater, there is confidence that:

- the proposed capital expenditure program is consistent with the actions of a prudent service provider acting efficiently
- the forecast capital expenditure is justified, robust and is capable of being delivered by GWMWater in the PS5 regulatory period.

As a result, we have not recommended any adjustments to GWMWater's forecast capital expenditure for the PS5 regulatory period.

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).[1] Each of the Victorian water businesses, including GWMWater, 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 prudency and efficiency of GWMWater'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
- changing work practices, including social distancing and hygiene requirements as well as transitioning to enable staff to work from home

[1] 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.

- disrupting supply chains, putting pressure on the availability and cost of inputs
- increasing migration from Melbourne to regional areas.[2]

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.

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

[2] 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.

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)[3] and the Commission's PREMO framework for approving prices.[4]

The Commission's regulatory framework places an emphasis on efficient delivery of services. Assessing the prudency 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 by 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.

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

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

Figure 1.1: The Commission's PREMO framework

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.[5] 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.

[5] 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 GWMWater'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 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 GWMWater's expenditure proposal
- Chapter 3 sets out our assessment of GWMWater's operating expenditure proposals
- Chapter 4 sets out our assessment of GWMWater'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.

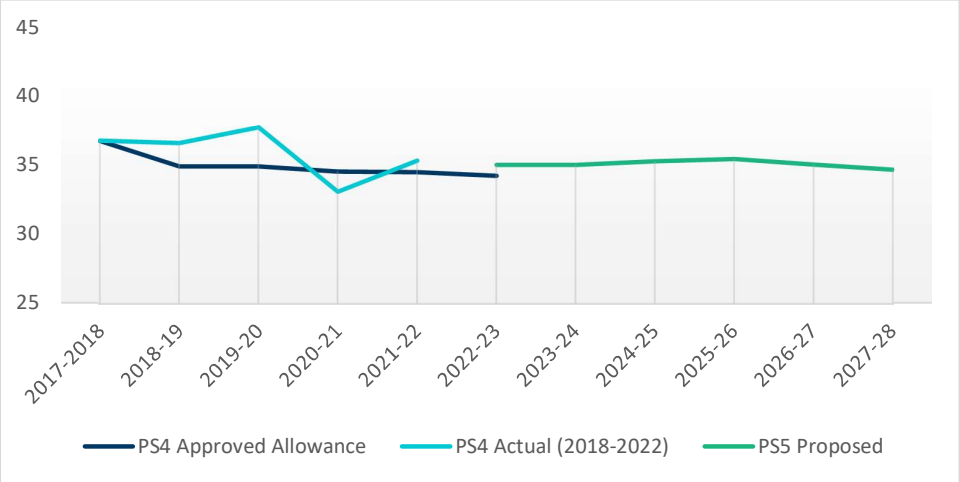
2 SUMMARY OF EXPENDITURE PROPOSAL

2.1 Forecast controllable operating expenditure

For the current PS4 regulatory period, the Commission approved a total controllable operating expenditure benchmark allowance for GWMWater of $173 million ($ 1 January 2023).[6]

For the first four years of the PS4 regulatory period, GWM Water's actual operating expenditure was $3.86 million (2.8 per cent) above the benchmark allowance approved by the Commission for those four years.

Figure 2.1: GWMWater's actual and forecast controllable operating expenditure by year ($ 1 January 2023)



'PS4 Approved Allowance' relates to the approved operating expenditure benchmark allowance for 2017-18 to 2022-23.

Source: GWMWater, GWMW_2023 Price Review Model - 20220929; Essential Services Commission 2018, GWMWater Determination Price Review Model: 1 July 2018 – 30 June 2023, 29 May.

GWMWater's baseline 2021-22 controllable operating expenditure is $35.31 million, which is $0.8 million (or 2.4 per cent) above the benchmark allowance approved by the Commission in the last price review.

[6] Essential Services Commission 2018, Grampians Wimmera Mallee Water Determination: 1 July 2018 – 30 June 2023, 29 May.

GWMWater has proposed a step change increase to the baseline of $4.3 million across the PS5 regulatory period, comprising:

- $1.46 million for operating expenditure associated with the East Grampians Rural Water Supply initiative
- $1.43 million for green energy costs
- operating expenditure associated with drinking water upgrade projects:
    - Elmhurst Scenario 2 - $0.015 million
    - Kaniva - $0.337 million
    - Moyston - $0.062 million
    - Berriwillock and Culgoa - $0.039 million
- $1.8 million for SaaS fees.

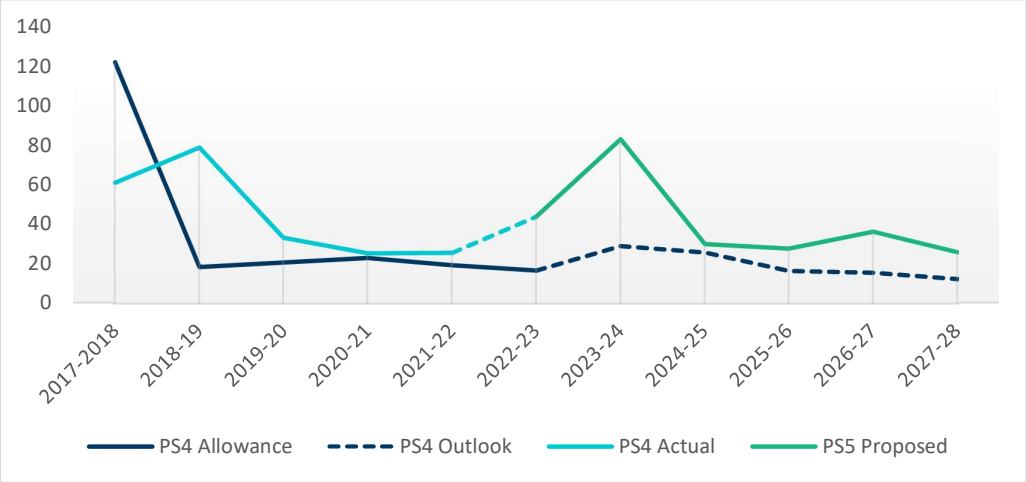
Overall, GWMWater has forecast an average growth factor for operating expenditure of 0.5 per cent per year and an (average) efficiency factor of 1.4 per cent per year over the PS5 regulatory period. This applies to both the urban and rural parts of the business.

2.2 Forecast capital expenditure

GWMWater has forecast capital expenditure of $203.6 million for the PS5 regulatory period. As shown in Figure 2.2, this is:

- 2 per cent less than its actual capital expenditure (including 2022-23 forecast) over the PS4 regulatory period
- 104 per cent more than the forecast capital expenditure outlook for the PS5 regulatory period that it included in its PS4 submission.

Figure 2.2: GWMWater's actual and forecast capital expenditure by year ($ 1 January 2023, millions)



'PS4 Approved Allowance' relates to the approved capital expenditure allowance for 2017-18 to 2022-23, and its 2018 forecast for 2023-24 to 2027-28.

Source: GWMWater_2023 Price Review Model-2021-10-26 Final Submission; Essential Services Commission 2018, FD_GWMW_Price Review Model.

GWMWater's actual capital expenditure in the PS4 regulatory period and its forecast capital expenditure in the PS5 regulatory period, are skewed by carryovers of government co-funded major water supply projects. Section 4 provides further information relating to the increased expenditure.

GWMWater's PS5 submission and additional information provided defines the key, projects and programs for the PS5 regulatory period which include:

- renewals $80.6 million which is 40 per cent of the total program (gross capital expenditure excluding government funding)

- improvements/compliance $63.5 million which is 31 per cent of the total program (gross capital expenditure excluding government funding)
- top 10 major projects ($101.4 million)
- around 50 defined programs ($102.2 million), including urban water main renewals ($18.1 million) and sewer main renewals ($9.4 million).

Table 2.1 sets out GWMWater's top 10 capital expenditure projects, which account for 49 per cent of its forecast capital expenditure for the PS5 regulatory period.

Table 2.1: GWMWater's top 10 capital expenditure projects (in $ 1 January 2023, millions)

Major capital expenditure project	Forecast expenditure
East Grampians Water Supply Project	46.5
Northern Mallee Pipeline Clean Water (Stage 2)	9.2
Water Quality Upgrade - Kaniva	8.5
Upgrade WWTP & Reuse System - Dimboola	7.8
Water Supply System Upgrade - Industrial Fire Flow	6.2
Headworks Structure Renewal – Rocklands Flume	6.1
Water Quality Upgrade - Berriwillock and Culgoa	5.7
Water Quality Upgrade - Moyston	4.8
Water Treatment Plant Upgrades – Health Based Treatment Targets (HBT)	3.6
Mt Zero Water Treatment Plant – New Clear Water Storage	3.0

Source: GWMWater, 2023-28 Price Submission, 30 September 2022, p. 60-64.

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).*[7]

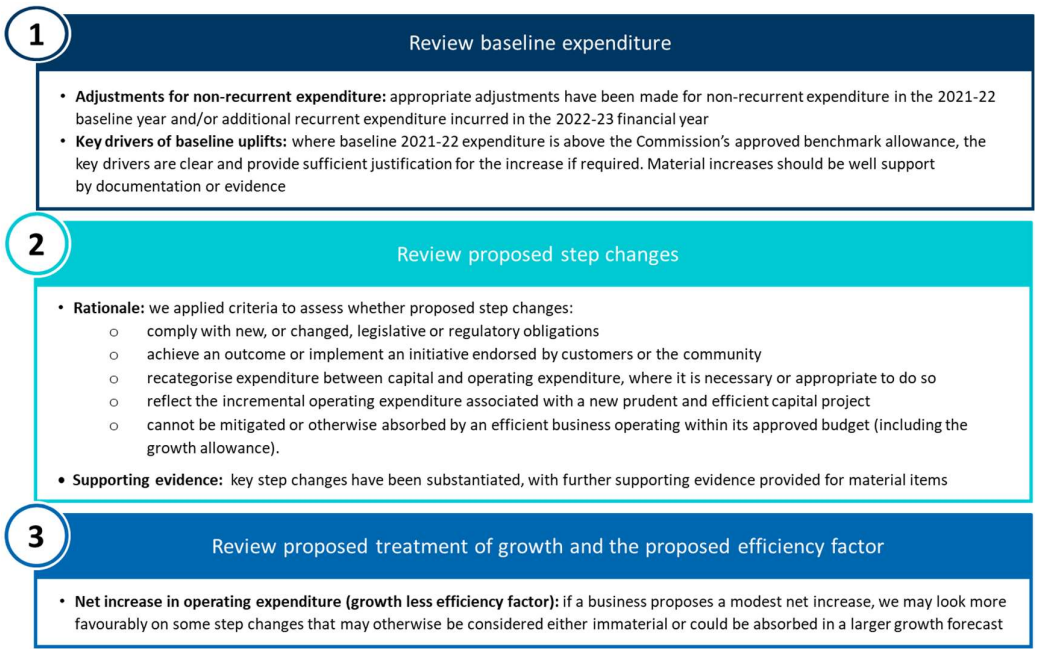
The Commission has asked us to provide an independent expert view on whether GWMWater's forecast controllable operating expenditure is prudent and efficient having regard to the base-step-trend approach and assessment criteria set out in its Guidance Paper.

We have assessed whether forecast controllable operating expenditure is consistent with the actions of a prudent business acting 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 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.

[7] Essential Services Commission (2021). 2023 Water Price Review: Guidance Paper, 26 October (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
Electricity	The application of the Schneider Electric Energy and Sustainability Services (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. 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).
Labour	The rationale for any material growth in employee numbers. 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.
IT	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. 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.

Electricity costs

The information submitted by each of the businesses indicates that most are applying the 75th 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 75th percentile of its forecast.[8]

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 75th 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.

[8] Schneider Electric 2022, Electricity Price Forecast, Covering financial year 23 to 2028, Base Case, 23 March, p.17.

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
- 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 GWMWater's forecast controllable operating expenditure for the PS5 regulatory period.

3.3 Assessment of the baseline

After adjusting for non-recurring items, GWMWater's adjusted controllable operating expenditure in 2021-22 was $35.31 million. This represents an increase in actual expenditure of $0.8 million or 2.4 per cent compared to the $34.48 million controllable operating expenditure benchmark allowance approved by the Commission as part of the last price review.

While GWMWater's increase in baseline expenditure is not substantial in percentage terms, we have still assessed the reasonableness of the proposed baseline expenditure by verifying that:

- any additional expenditure above the benchmark allowance is consistent with what is required by a prudent business operating efficiently
- the forecast operating expenditure does not include any items that are non-recurring.

As limited information on this increase was provided in GWMWater's PS5 submission, we requested further information from the business. In response to this, GWMWater explained that the increase in its baseline operating expenditure against the benchmark allowance is attributed to the following key drivers:

- higher water volumes treated
- increases in chemical and materials costs, fuel and insurance costs (which is also consistent with the experience of other businesses in the current period)
- more frequent inspections of dams and bridges
- improvements in asset management practices, including a move from reactive to proactive maintenance.

We sought further information from GWMWater in relation to the changes that it has made in relation to maintenance practices over the PS4 regulatory period. GWMWater provided further context regarding its operating environment, including its comparatively high ratio of infrastructure per customer. It has also inherited ageing urban infrastructure that can be expected to be subject to failure.

GWMWater demonstrated how it has increased the proportion of targeted planned maintenance, resulting in a reduction in reactive maintenance. Over time, this should improve the efficiency of its maintenance costs and reduce disruptions in services to customers. It also explained the options it presented to its Community Panel in terms of the trade-off between service standards and costs, where participants endorsed the 'no impact on price' scenario, which equates to maintaining current service reliability. Its maintenance approach will be aligned with that targeted service outcome.

After reviewing the information provided by GWMWater and engaging in discussions with the business, we have been able to confirm that there is a clear rationale for the cost increases and that they are consistent with a prudent business acting efficiently. We can also confirm that these costs are recurrent.

We also note that as stated by GWMWater in its price submission, planned desludging expenditure has now been included in the capital program.[9] This was verified as part of the review of capital expenditure (refer Chapter 4). GWMWater confirmed that all costs associated with major desludging activities have been moved to capital and hence are not in the baseline. It also advised that minor expenditure on activities such as the routine cleaning of tanks and water storages remains in the baseline, with the value of these activities accounting for less than $50,000.

[9] GWM Water, 2023-2028 Water Price Submission, September 2022, p.53.

We therefore do not propose to make any further adjustments to GWMWater's proposed baseline and it does not appear to include any items that are non-recurring.

3.4 Assessment of the step changes

GWMWater has proposed a step change increase to its baseline 2021-22 operating expenditure of $4.3 million across the PS5 regulatory period. The most material step changes are for operating expenditure associated with the East Grampians Rural Water Supply project ($1.5 million), green power costs ($1.4 million) and SaaS licence fees ($1.8 million).

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).

Our assessment of the step changes is outlined below.

3.4.1 East Grampians Rural Water Supply

As noted in Chapter 4, the East Grampians Rural Water Supply project is one of GWMWater's major capital projects that has continued into the PS5 regulatory period. This is involving the construction of a rural water pipeline to provide secure water supply for the East Grampians region, which is highly vulnerable to drought. While the capital costs of this project are being co-funded by Government, GWMWater will be responsible for ongoing operations and maintenance.

We viewed the original Business Case for this project, which identified the ongoing operating expenditure that will be associated with the new infrastructure. With targeted completion in 2023-24, GWMWater is forecasting updated annual operating expenditure of $0.365 million ($ 1 January 2023) from 2024-25. This primarily comprises expenditure for electricity and contractors.

We are satisfied that GWMWater has substantiated these costs and that their basis appears reasonable.

3.4.2 Green power costs

Pursuant to the Victorian water businesses' commitment to source 100 per cent of their energy from renewable sources by 2025 (see Appendix A). GWMWater is proposing a step change from 2025-26 for the additional costs of purchasing green power.

To provide context for this step change we requested a copy of GWMWater's Clean Energy Strategy (dated July 2019). This explains GWMWater's approach to the future management of its energy requirements, including how it proposes to meet the Victorian Government's target under the Statement of Obligations (see Appendix A). This is through a combination of:

- its procurement of electricity in the market
- its optimisation of the use of electricity
- renewable energy generation and its own behind-the-meter investment. For example, GWMWater advised that as at 30 June 2022, solar PV installed at 48 sites across its network is generating 12 per cent of its electricity requirements.

Electricity is procured under the Victorian Government's State Purchase Contracts. GWMWater also provided more detailed workings of its electricity price forecasts based on information provided by its energy suppliers, confirming that the step change costs for green power represent the incremental cost of sourcing electricity from 100 per cent renewable sources. This incremental cost is relative to GWMWater's actual electricity costs in its baseline year of 2021-22.

As outlined in GWMWater's PS5 submission, it has built targeted productivity savings into its electricity price forecast, which is also included in the step change for green power costs. It is evident that a five per cent per annum productivity saving has been reflected in its proposed step change for the PS5 regulatory period. GWMWater had noted a 10 per cent productivity target in years three to five of the PS5 regulatory period.[10] When questioned about this, GWMWater advised that in effect, the higher target in those years is being offset by the increase in electricity required for new services (i.e. the East Grampians Rural Water Supply project and the drinking water upgrade projects).

Based on the information provided by GWMWater we are satisfied with the explanation it has provided regarding its step change for green power costs and that the basis for this is

[10] GWM Water, 2023-2028 Water Price Submission, September 2022, p.54.

reasonable, noting the application of a five per cent per annum productivity target to those costs.

3.4.3 SaaS licence fees

GWMWater is one of a number of water businesses transitioning to the SaaS platform (see Appendix A). GWMWater provided us with a (confidential) supporting document submitted to its Audit, Governance and Risk Committee that provided more information on the business's transition and the negotiations that have been occurring with the service provider. This document also explained the basis for the licence fee, which the service provider has set as a fixed percentage of its existing annual service and maintenance fee. It is also evident that GWMWater (along with other water businesses) has attempted to negotiate a lower fee.

The estimate provided in that document aligns with the forecast provided for this step change in the Price Review Model (noting that GWMWater has rounded that estimate down in its forecast[11]).

We are satisfied that GWMWater has substantiated this cost and that this reflects the licence fee quoted by the third-party service provider.

3.4.4 Drinking water upgrade projects

A total of $0.45 million in operating expenditure is attributed to the drinking water upgrade projects (Elmhurst, Kaniva, Moyston, Berriwillock and Culgoa). GWMWater provided more detail underpinning the costings, which showed that they are primarily due to additional costs for electricity, chemicals and contractors.

We are satisfied that these costs are reasonable.

3.4.5 Summary of our assessment

As outlined above, we are satisfied that GWMWater has substantiated all of its proposed step changes for the PS5 regulatory period and that the costs appear reasonable. We have also considered this within the context of GWMWater's proposed net growth factor of -0.8 per cent per annum, which is the second most ambitious of the water business (refer section 3.4).

We are therefore able to confirm that:

- there is a clear rationale for each step change and that they are consistent with a prudent business acting efficiently, having regard to our step change criteria

[11] This would result in GWMWater absorbing just under $70 000 of this cost over the PS5 regulatory period.

- they are sufficiently material to allow these increases to baseline operating expenditure rather than assume that they should be absorbed by the net growth factor.

We therefore consider it appropriate for GWMWater's baseline operating expenditure allowance to be increased for the full amount of the forecast step changes.

3.5 Forecast growth and efficiency factors

GWMWater is forecasting average growth in operating expenditure of 0.5 per cent per year and an (average) efficiency factor of 1.4 per cent per year over the PS5 regulatory period. This applies across the urban and rural parts of the business. This results in a net increase in operating expenditure over the PS5 regulatory period of -0.8 per cent per year. When comparing this net result against other water businesses, GWMWater is second out of 13 urban water businesses subject to this review (see Table 3.2).

Table 3.2: 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%
Goulburn Valley Water	1.1%
Central Highlands Water	1.2%

Source: Calculated from pricing models submitted by water businesses.

3.6 Summary of operating expenditure assessment

Based on GWMWater's PS5 submission, discussions with the business and the further information it provided, the adjusted operating expenditure in 2021-22 is consistent with a prudent business that operates efficiently and does not require any further adjustments. This reflects our view that:

- the key drivers of the additional expenditure above 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 -0.8 per cent per year.

As a result, we do not recommend any adjustments to GWMWater's forecast controllable operating expenditure for the PS5 regulatory period.

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).*[12]

We have assessed GWMWater's proposed capital expenditure program against the criteria set out in Figure 4.1.

Figure 4.1: Criteria used to assess forecast capital expenditure

Assessment of capital program

- Link to customer service outcomes, regulatory obligations and risk management
- Comparison of forecast and actual capital expenditure
- Reliability of cost estimation
- Deliverability of capital program

Assessment of major capital projects and programs

- Major capital projects and programs are clearly justified
- Proposed delivery solution is reasonable

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

Our assessment of GWMWater's forecast capital expenditure is based on a review of the information contained in its PS5 submission and responses to additional information requests we raised based on the above criteria.

The assessment includes the top 10 major projects and capital expenditure programs that comprise a significant proportion of the total capital expenditure forecast for the PS5 regulatory period along with apparent significant expenditure spikes within the programs.

[12] Essential Services Commission 2021, 2023 water price review, Guidance paper, 26 October, p. 33.

4.1.1 Link to customer outcomes and obligations

GWMWater's PS5 submission includes major project summaries which clearly link the proposed capital program to customer outcomes, risk and/or regulatory obligations. In particular, the proposed capital program seeks to achieve the following broad outcomes:

- extend access to essential services to more Victorians via new rural pipeline services in partnership with State and Commonwealth governments
- improving urban water quality by converting non-potable urban town supplies to potable
- responding to poor quality source water and water supply quality risks from the Murray River
- bringing forward renewal projects to support businesses required to comply with the National Construction Code (Industrial Fire Flow project)
- a range of upgrades to wastewater treatment plants and drinking water treatment plants to ensure compliance with environmental and health regulations.

GWMWater's PS5 submission also lists the individual programs, which appear well linked to key drivers of expenditure.

4.1.2 Comparison of forecast and actual capital expenditure – PS4 regulatory period

GWMWater expects to deliver a capital expenditure program of $210 million in the PS4 regulatory period. This is significantly higher (113 per cent) than the capital expenditure allowance approved by the Commission for the PS4 regulatory period. This largely reflects capital expenditure for two projects that were not included in the PS4 submission forecasts related to:

- the carryover of the South West Loddon rural water supply project from the PS3 regulatory period to the PS4 regulatory period
- the new East Grampians water supply project, which commenced in the PS4 regulatory period and is expected to carry over into the PS5 regulatory period.

GWMWater has received government contributions totaling $59 million for the above major water supply projects. These government contributions have reduced the net overall capital expenditure in the PS4 regulatory period to approximately $151 million.

4.1.3 Forecast capital expenditure – PS5 regulatory period

GWMWater's capital expenditure forecast for the PS5 regulatory period is $204 million. This is:

- $4 million or 2 per cent less than its actual capital expenditure (including 2022-23 forecast) over the PS4 regulatory period
- $104 million or 104 per cent more than the forecast capital expenditure outlook for the PS5 regulatory period that it included in its PS4 submission.

We note that at the time GWMWater prepared its PS4 submission, the government co-funded East Grampians water supply project was uncertain and hence was not included in the PS5 capital expenditure forecasts.

A key contributor to the large increase in capital expenditure for the first year of the PS5 regulatory period is the carryover of $46.5 million in expenditure for the East Grampians water supply project to 2023-24. GWMWater has identified $30 million of offsetting government funding associated with this project in the PS5 regulatory period.

The key drivers for GWMWater's PS5 capital expenditure program are:

- water supply improvement/compliance – $63.5 million, which is 31 per cent of the total capital expenditure program (gross capital expenditure excluding government funding)
- renewals – $80.6 million, which is 40 per cent of the total capital expenditure program (gross capital expenditure excluding government funding).

GWMWater's top 10 projects together account for $101 million and the total programs account for a further $103 million. The major areas of expenditure are:

- East Grampians water supply project $46.5 million (gross capital expenditure excluding the government funding contribution)
- six water quality improvement and compliance projects across multiple supply systems $34.9 million
- water and sewer asset renewals $27 million
- more than 50 individual capital expenditure programs $76 million.

Our assessment of GWMWater's major project summaries, is that they appear well linked to the drivers and the regulatory and customer service outcomes and they include sufficient information to be satisfied that the projects are justified. Further information was requested to clarify the cost-recovery arrangements for Industrial Fire Flow project.

The additional information provided by GWMWater around the selected program expenditure, discussed in section 4.3, was considered sufficient to support the expenditure in the PS5 regulatory period.

Given that the forecast PS5 capital program is of a similar scale to the PS4 capital program and the advanced status of the major East Grampians water supply project, we consider that GWMWater's forecast capital expenditure is likely to be deliverable in the PS5 regulatory period.

4.1.4 Underlying processes for developing the program

GWMWater's overall program has been developed, prioritised and underpinned by its Risk Management Framework, Infrastructure Project Management Governance Framework and Strategic Asset Management Plans. GWMWater has referred to supporting strategies and plans, with projects included only where there is a proven business need or benefit and supporting justification. GWMWater has also undertaken a detailed assessment and customer engagement on the capital program risk and pricing implications.

GWMWater has developed its renewals program using predictive models which consider asset condition, age, service level and risk.

Additional information provided by GWMWater provides confidence that there is a well-developed framework guiding the development of the capital expenditure program and the approaches to developing the program are consistent with a prudent service provider acting efficiently.

4.1.5 Reliability of cost estimation

GWMWater's PS5 submission indicates that it develops business cases for major projects consistent with the Victorian Department of Treasury and Finance's investment management standards. Consultants[13] were engaged to confirm the preliminary scope, base estimates and assumptions for newly identified major water and wastewater upgrade projects proposed for planning and delivery over the next ten years. Although projects which are in progress, were not part of the review, it provides confidence around the cost estimation for new projects.

GWMWater has derived its renewals program forecast expenditure using predictive models and actual average rates based on recent works without any additional contingency. For other projects/programs, GWMWater has developed cost estimates based either on historical program costs or detailed estimates with contingencies reflecting the level of risk.

[13] Report -2022-23-006-EDA-GWMWater - Project Scope and Estimates Review.

These estimates are supported by various internal and external assessments undertaken during the project lifecycle.

GWMWater's approach to cost estimation appears to provide an appropriate basis for developing the budget estimates for its PS5 capital expenditure program.

4.1.6 Deliverability of capital program

GWMWater's Project Management Governance Framework outlines its approach to capital works planning and delivery. In support of its capacity to deliver the PS5 program, GWMWater states that:

- it has thoroughly evaluated the feasibility of commencement and completion dates for major projects, with several major projects in the submission already in the delivery phase
- program-based procurement panels, which were established in the PS4 regulatory period, will be maintained and expanded as an efficient model for delivering packages of works and increasing delivery capacity
- it intends to pro-actively monitor the market and revise this approach as required
- watermain renewals are delivered through a panel arrangement, with sewer main renewals open tendered annually
- a planning and delivery panel has been established to support internal resources in planning, scoping and managing the delivery of works where necessary.

Given the capital expenditure program is similar in scale to what has been delivered in the PS4 period and the approaches adopted by GWMWater above, there is confidence that the program can be delivered in the PS5 regulatory period.

4.2 Assessment of major projects and major programs

4.2.1 Major projects

GWMWater's major project capital expenditure totals $101.4 million which accounts for 49 per cent of its forecast capital expenditure for the PS5 regulatory period. GWMWater's PS5 submission includes major project summaries which provide sufficient clarity on their justification and links to customer outcomes, risk and/or regulatory obligations and which seek to achieve the following broader outcomes:

- new rural pipeline services in partnership with state and commonwealth governments to extend access to essential services to more Victorians
- improving urban water quality by converting non-potable urban town supplies to potable

- responding to poor quality source water and risks from the Murray River
- bringing forward renewal projects to support businesses required to comply with the National Construction Code (Industrial Fire Flow project)
- a range of compliance projects to meet regulation/legislation including wastewater treatment plants and drinking water treatment plant upgrades.

Strategies and plans were referenced along with links to business cases.

We sought further information from GWMWater in relation to the cost recovery arrangements for the Industrial Fire Flow project ($6.2 million) that assists specific customers to meet an on-property fire service standard. The additional information provided by GWMWater indicates that the cost recovery arrangements appear to be a fair and reasonable apportionment of costs to the beneficiaries.

The major project summaries and associated information in the GWMWater's PS5 submission along with the overall approaches to developing the program, the cost estimation and delivery, provide sufficient confidence that the major project expenditure is consistent with a prudent service provider acting efficiently.

4.2.2 Programs

The balance of the capital expenditure program comprises more than 50 individual programs totaling $102.2 million. We focused our assessment of program capital expenditure on:

- The two largest program expenditure items, which related to urban water main renewals ($18.1 million) and sewer main renewals ($9.4 million). These programs aim to reduce customer interruptions and blockages. The forecast capital expenditure for these programs has been derived using predictive models which consider asset condition, age, service level and risk. Cost estimates are based on unit rates, reflecting recent historical trends and/or independently verified market forecasts. No additional contingencies are used in setting the renewal program expenditure. Our assessment is that GWMWater's approach to determining program costs for these items is well developed and robust.
- For the remaining program expenditure ($76 million associated with more than 50 individual programs), we focused specifically on areas where there were large spikes in capital expenditure within the PS5 regulatory period. This included the Horsham Smartwater Integrated Water Management $2.5 million (2023-24), Computer Hardware $1 million (2023-24) and Behind the meter projects $1 million (2023-24). The additional information provided by GWMWater supported the forecast capital expenditure for these programs.

- The desludging program ($2.8 million). Further information was sought from GWMWater to better understand the inclusion of the desludging expenditure in the capital program. It outlined that the desludging program would see $2.8 million spent in years four years of PS5 (no desludging is forecast for 2026-27), and no further desludging would occur until PS7. GWMWater explained that this approach would avoid the need to have material increases and decreases flowing through to prices, with the impact on bills from capitalising the expenditure being $6 on the average annual bill compared to $19 if the expenditure was treated as operating.[14] We have not assessed this proposed approach by GWMWater to classify the desludging costs as capital, as we understand the commission will undertake an assessment based on guidance it has provided to all water businesses.

4.3 Summary of capital expenditure assessment

Based on the information provided around the major projects, the specific program expenditure and the approaches to developing the program, the cost estimation and the delivery arrangements, we consider that:

- the proposed capital expenditure program is consistent with a prudent service provider acting efficiently
- the forecast capital expenditure is justified, robust and is capable of being delivered by GWMWater in the PS5 regulatory period.

As a result, we do not recommend any adjustments to GWMWater's forecast capital expenditure for the PS5 regulatory period.

[14] 6 January 2023, email from Executive Manager Strategic Planning and Performance

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, being:

- 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.[15]

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

[15] Statement of Obligations (Emission Reduction), Section 3.1.

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 CO2 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 businesses' PS5 submissions and discussions with them 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.

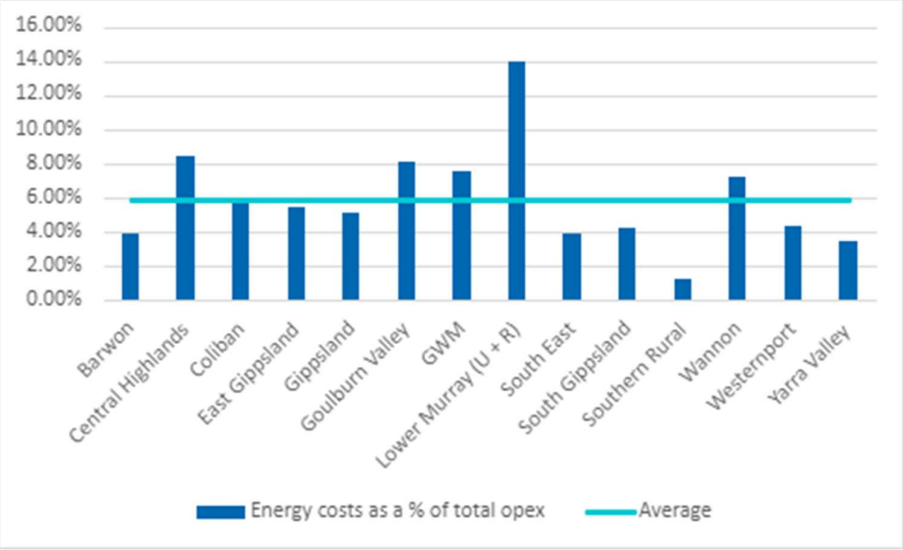
The most appropriate strategy depends on the needs and circumstances of the business, including the feasibility (and cost) of direct action measures such as solar PV.

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 the PS5 regulatory period accounts for a relatively small proportion of controllable operating expenditure, averaging around 6 per cent, as shown below.

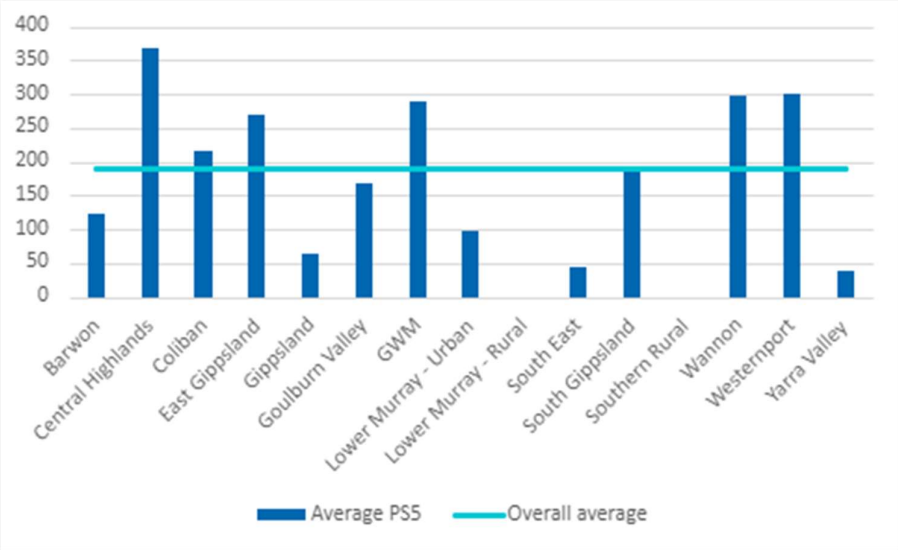
Figure A1: PS5 forecast total energy expenditure as a percentage of total controllable operating expenditure (%)



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)

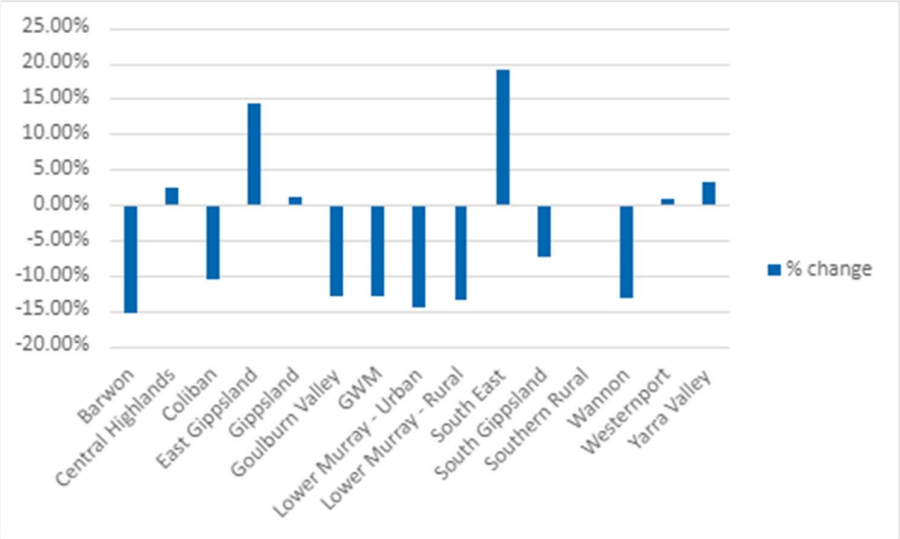


Source: Victorian water businesses, 2023 Price Review Models.

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[16] and proposed PS5 energy expenditure for each business.

[16] 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.[17]

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

[17] 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's performance audit of Security of Water Infrastructure Control Systems.[18]

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

Other IT-related expenditure

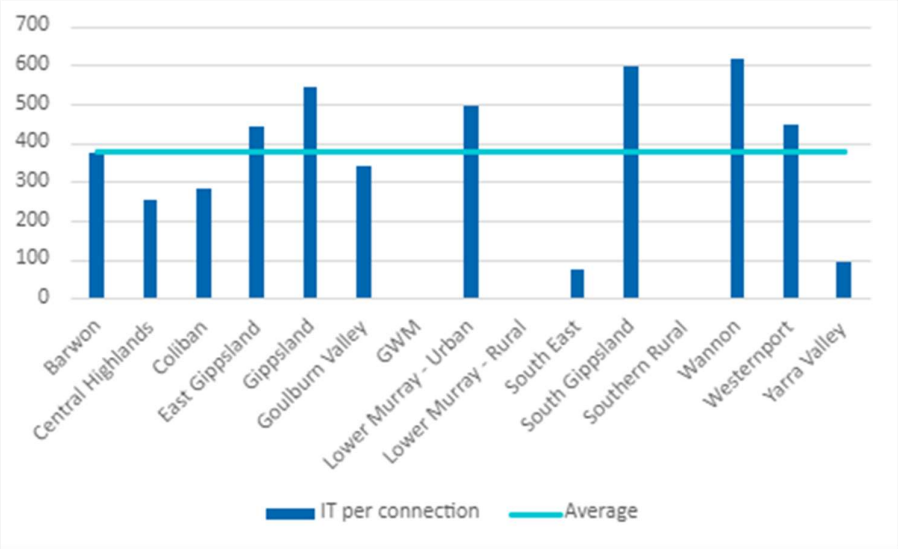
Depending on the functionality and maturity of each water business's current IT-architecture, other business-specific expenditure may be incurred in reviewing and upgrading this capability.

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.

[18] Victorian Auditor-General's Office 2019, *Security of Water Infrastructure Control Systems*, 9 May.

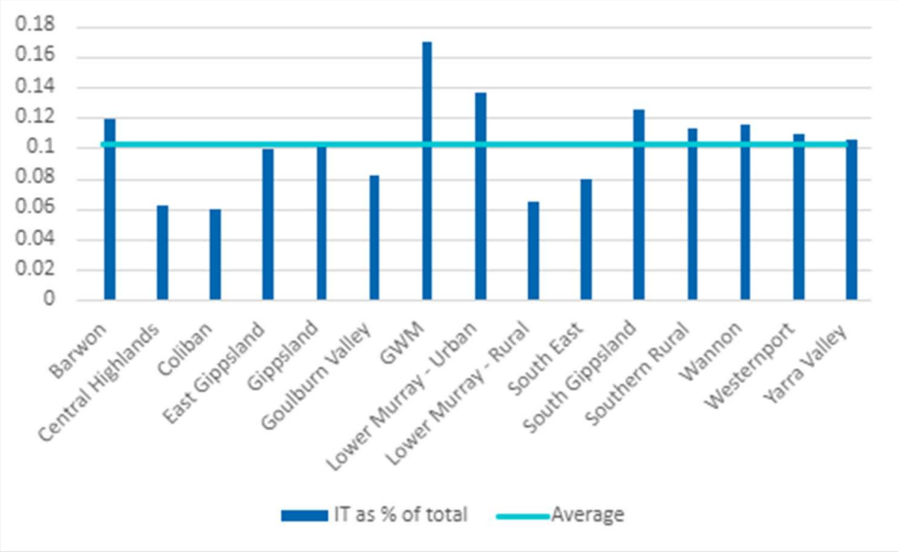
Figure A4: PS5 forecast: ICT operating expenditure per water connections ($ per average number of water connections, 1 January 2023)



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 (see Figure A9 below).

Labour costs are a function of employee numbers (measured in terms of FTEs)[19] 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

[19] Full-time equivalent employees.

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 have emerged for 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).[20] The Premier typically announces an annual adjustment guideline rate for adjustments 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.

[20] Refer: https://vpsc.vic.gov.au/executive-employment/victorian-public-entity-executive-employment/public-entity-executive-handbook/4-remuneration/ {accessed 14 December 2022}.

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.[21] 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.[22]

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.[9] 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.[23] The Reserve 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.[24]

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.[25] 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

[21] State of Victoria 2018, Strategy and Outlook 2018-19 Budget Paper No. 2, Department of Treasury and Finance, p.23.

[22] State of Victoria 2018, Strategy and Outlook 2018-19 Budget Paper No. 2, Department of Treasury and Finance, p.22.

[23] State of Victoria 2022, Strategy and Outlook 2022-23 Budget Paper No. 2, Department of Treasury and Finance, p.32.

[24] Reserve Bank of Australia 2022, Statement on Monetary Policy, November.

[25] Reserve Bank of Australia 2022, Statement on Monetary Policy, November.

by the water businesses. However, 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.

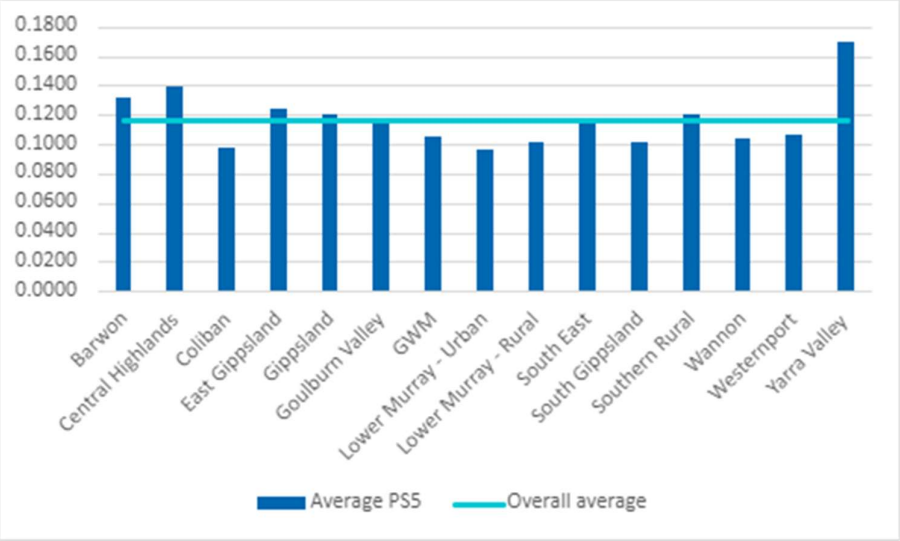
The impact of this will therefore vary between businesses and potentially within businesses given employees may be subject to different types of arrangements.

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.

Figure A6 shows average unit cost per FTE as forecast for the PS5 regulatory period, as reported by the businesses.

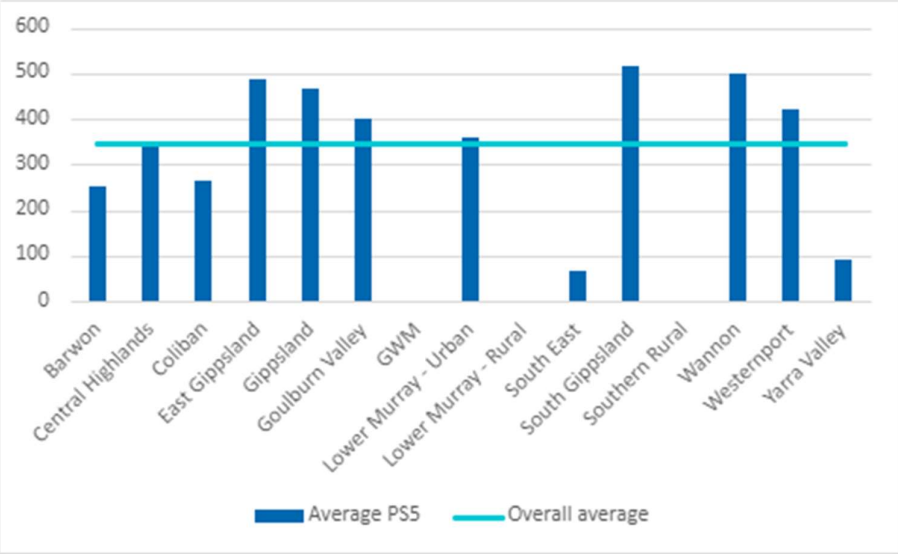
Figure A6: PS5 forecast average unit cost per FTE ($ million per FTE, 1 January 2023)



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.

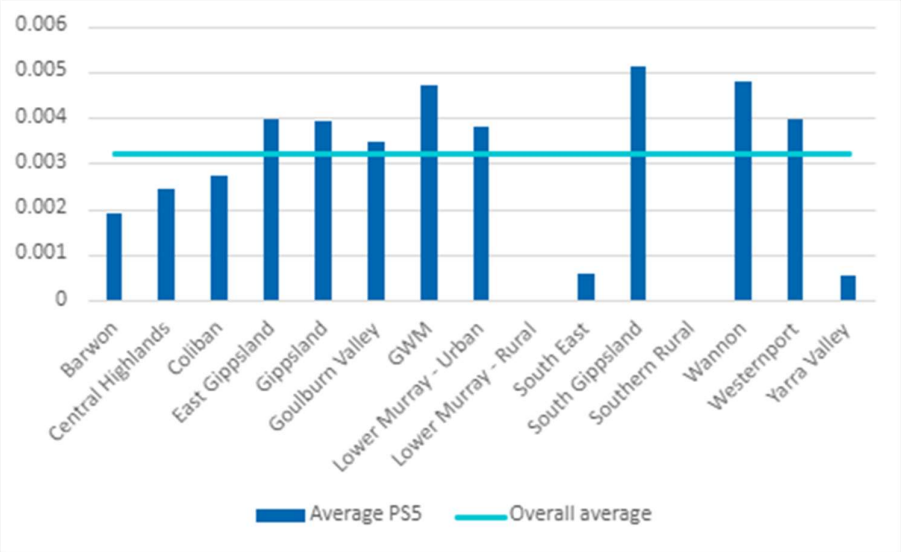
Figure A7: PS5 forecast: Average labour cost per water connection ($ per average number of water connections, 1 January 2023)



Source: Victorian water businesses, 2023 Price Review Models.

These scale economies are similarly evidenced based on the average number of FTEs per water connection (see Figure A8).

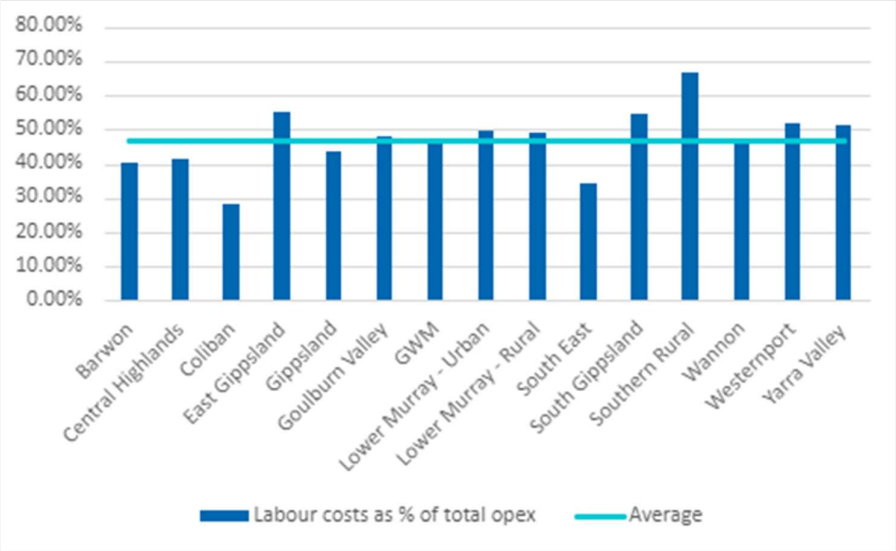
Figure A8: PS5 forecast average number of FTEs per water connection



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 PS5 regulatory period.

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



Source: Victorian water businesses, 2023 Price Review Models.