March 2023

Southern Rural Water: Review of expenditure forecasts

2023 Water Price Review

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Glossary

Term	Definition
BMID	Bacchus Marsh Irrigation District
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
MID	Macalister Irrigation District
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
WID	Werribee Irrigation District
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 Southern Rural Water'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 Southern Rural Water's forecasts of capital and operating expenditure over the regulatory period can be reasonably assessed to be prudent and efficient.

Forecast operating expenditure

Southern Rural Water has proposed an average net increase in controllable operating expenditure (growth less efficiency factor) of zero per cent per year for the PS5 regulatory period.

Southern Rural Water's forecast operating expenditure reflects:

- baseline 2021-22 expenditure of $24.14 million, which is $2.1 million (or 9.4 per cent) more than the benchmark allowance approved by the Commission in the previous price review
- nil step changes to the baseline across the regulatory period
- an efficiency factor of 1 per cent per year. As the average net increase in controllable operating expenditure is zero per cent per year, this implies an average growth factor of negative 1 per cent per year.

The key driver of the increase in operating expenditure between the PS4 and PS5 regulatory periods is an increase in 2021-22 baseline expenditure above the benchmark allowance for the PS4 regulatory period. Based on advice provided by Southern Rural Water, we also understand that its benchmark controllable operating expenditure for the current PS4 regulatory period, as it has reported in its 2023 Price Review Model, includes non-prescribed storage operator charges. We have not made an adjustment for this item.

Otherwise, we are satisfied that the key drivers of the additional expenditure are reasonable, and the baseline does not include any items that are non-recurring.

Southern Rural Water has not proposed any further step changes to its baseline operating expenditure and its net growth in operating expenditure is zero per cent per year.

Based on Southern Rural Water's PS5 submission, discussions with the business and the further information it provided, we consider that its adjusted controllable operating expenditure in 2021-22 is consistent with a prudent business operating efficiently and we do not recommend any further adjustments.

Forecast capital expenditure

Southern Rural Water has forecast capital expenditure of $125.1 million for the PS5 regulatory period. This is:

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

Southern Rural Water's PS5 submission provides a breakdown of its forecast capital expenditure for the PS5 regulatory period, with further information provided as requested to support this review.

Southern Rural Water's capital expenditure over the PS4 and PS5 regulatory periods is skewed by the carryover of large state government co-funded irrigation modernisation projects.

Based on its PS5 submission and subsequent information and responses provided by Southern Rural Water, we are confident that:

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

As a result, we do not recommend any adjustments to Southern Rural Water'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 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 Southern Rural 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' operating and capital expenditure forecasts 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 Southern Rural Water's capital and 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 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.

[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 Southern Rural 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 Southern Rural Water's expenditure proposals
- Chapter 3 sets out our assessment of Southern Rural Water's operating expenditure proposals
- Chapter 4 sets out our assessment of Southern Rural 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.

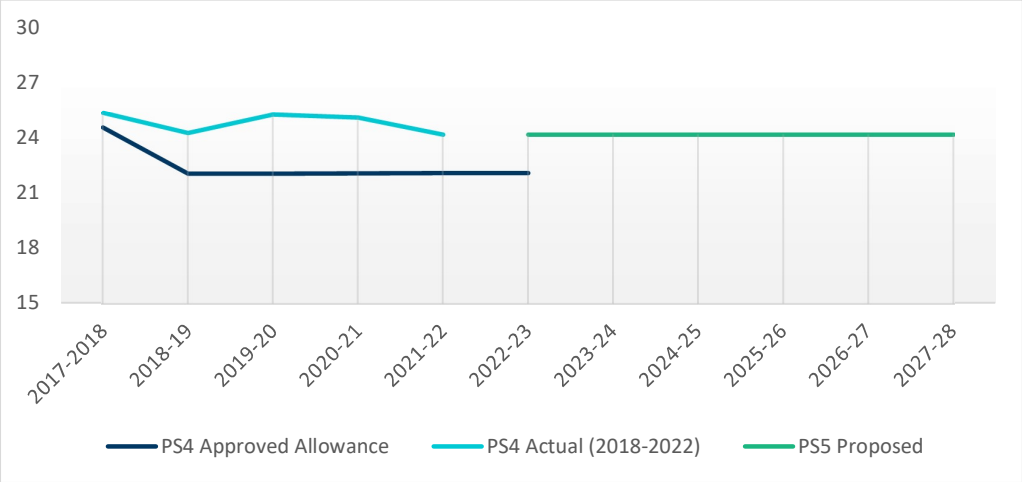
2 SUMMARY OF EXPENDITURE PROPOSAL

2.1 Forecast controllable operating expenditure

For the current PS4 regulatory period, the Commission approved a total controllable operating expenditure benchmark allowance for Southern Rural Water of $110.2 million ($ 1 January 2023).

For the first four years of the PS4 regulatory period, Southern Rural Water's actual operating expenditure was $11.06 million (12.5 per cent) more than the benchmark allowance approved by the Commission for those four years. This is shown in Figure 2.1.

Figure 2.1: Southern Rural Water's actual and forecast controllable operating expenditure by year ($ 1 January 2023, millions)



Source: Southern Rural Water, YVW_2023 Price Review Model - 20220929, 3 October 2022; Essential Services Commission 2018, Southern Rural Water Determination Price Review Model: 1 July 2018 – 30 June 2023, 29 May.

Southern Rural Water's baseline 2021-22 controllable operating expenditure is $24.14 million, which is $2.1 million (or 9.4 per cent) more than the benchmark allowance approved by the Commission in the last price review.

Southern Rural Water has not proposed any step changes to controllable operating expenditure for the PS5 regulatory period.

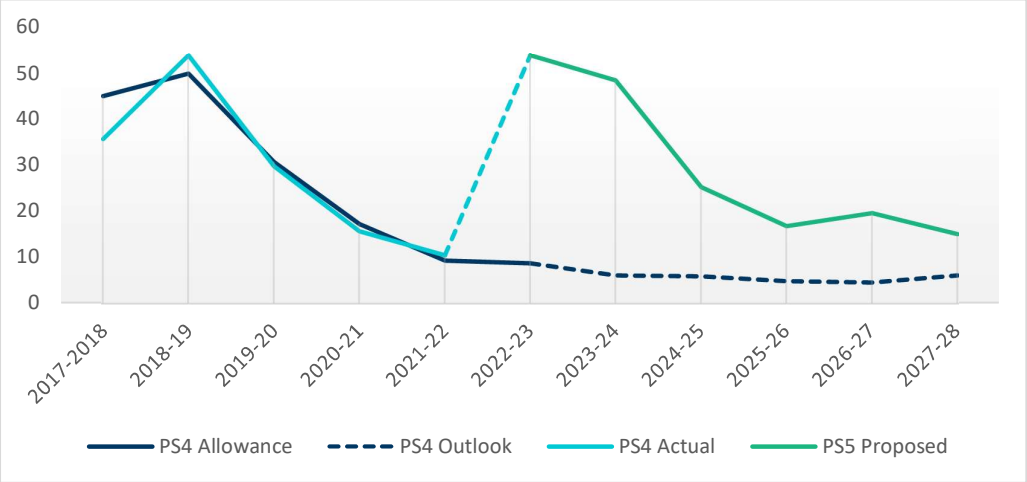
Southern Rural Water has proposed an efficiency factor of 1.0 per cent per year and an average net increase in controllable operating expenditure of zero per cent per year. This implies an average growth factor of negative 1.0 per cent per year.

2.2 Forecast capital expenditure

Southern Rural Water has forecast capital expenditure of $125.1 million for the PS5 regulatory period. As shown in Figure 2.2, this is:

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

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



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

Source: Southern Rural Water, Southern Rural Water_2023 Price Review Model – Final Submission, 2018 PS; FD_Southern Rural Water_Price Review Model.

Southern Rural Water's capital expenditure over the PS4 and PS5 regulatory periods is skewed by the carryover of large state government co-funded irrigation modernisation projects.

Southern Rural Water has defined the key, projects and programs in its PS5 submission, which include:

- improvements/compliance ($54.0 million gross; excluding government funding), which is 43 per cent of the total forecast capital expenditure

- renewals ($71.0 million), which is 57 per cent of the total forecast capital expenditure
- top 10 major projects ($55.8 million)
- defined programs and other discrete capital expenditure ($69.3 million).

As shown in Table 2.1, Southern Rural Water's top 10 capital expenditure projects account for 45 per cent of its proposed capital expenditure for the PS5 regulatory period. It is noted that the capital expenditure is offset by government grants for the Macalister Irrigation District (MID)and Werribee Irrigation District (WID) modernisation projects ($18.6 million) and the sale of bulk water entitlements ($12.5 million).

Table 2.1: Southern Rural Water's top 10 capital expenditure projects ($ 1 January 2023, millions)

Major capital expenditure project	Forecast expenditure
Macalister Irrigation District (MID) Modernisation Phase 2	23.9
Werribee Irrigation District (WID) Modernisation Stages 4 & 5	13.1
Groundwater and River Meter Upgrade	6.2
Melton Reservoir Spillway Left Training Wall Upgrade	2.4
Main Southern Carrier Tunnel No 5 Remediation	3.3
Glenmaggie Spillway Gate Repainting	2.3
Main Northern Channel Siphon No 2	1.6
Southern Main Carrier Concrete Flume Joint Repair	1.4
Blue Rock Isolating Valve Replacement	1.0
Main Southern Channel Siphon No 2	0.7

Source: Southern Rural Water, Price Submission 2023, p.80.

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).*[6]

The Commission has asked us to provide an independent expert view on whether Southern Rural Water's 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 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.

Each business's growth and efficiency factors will reflect their business and operating environment, and as discussed in section 1, over the PS4 regulatory period some businesses have experienced materially higher than expected growth.

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

[6] Essential Services Commission 2022, 2023 Water Price Review: Guidance Paper, August Amendment, p.28.

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 relevant to 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 (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.[7]

[7] Schneider Electric 2022, Electricity Price Forecast, Covering FY23 to FY28, Base Case, 23 March, p.17.

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.

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 Southern Rural Water's forecast controllable operating expenditure for the PS5 regulatory period.

3.3 Assessment of the baseline

After adjusting for non-recurring items, Southern Rural Water's adjusted controllable operating expenditure in 2021-22 was $24.14 million. This actual expenditure is $2.1 million (or 9.4 per cent) more than the $22.06 million benchmark allowance approved by the Commission as part of the last price review.

We have 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 controllable operating expenditure does not include any items that are non-recurring.

We focused our assessment on Southern Rural Water's baseline uplift given the materiality of the proposed increase.

3.3.1 Non-prescribed headworks charges

Southern Rural Water explained that its benchmark controllable operating expenditure for the current PS4 regulatory period, as it has reported in its 2023 Price Review Model, includes non-prescribed storage operator charges. In the last price review, the Commission adjusted Southern Rural Water's controllable operating expenditure to remove a portion of these non-prescribed items.[8] The Commission rationale for the adjustment was as follows:

> *Southern Rural Water operates storages on behalf of various entitlement owners. Under the WIRO, some of these entitlements are considered*

[8] Essential Services Commission 2018, Southern Rural Water Final Decision, 2018 Water Price Review, p.10.

prescribed, and some non-prescribed. As the service provision, and therefore the cost base, is not separable for individual entitlement holders, a proportional share of the total cost base has been deducted as a single adjustment against the revenue requirement via operating expenditure.[9]

Southern Rural Water advised that given:

- the Commission's 2021-22 benchmark controllable operating expenditure allowance of $22.06 million ($1 January 2023) does not include non-prescribed storage operator charges and
- its actual 2021-22 controllable operating expenditure of $24.14 million includes the costs of operating these non-prescribed storages then
- the $2.1 million difference is overstated by the costs that relate to the non-prescribed storages.

We understand that the Commission will be undertaking further verification regarding the appropriateness of Southern Rural Water's proposed treatment of non-prescribed headworks charges and how this impacts the assessment of the baseline.

3.3.2 Labour-related expenditure

Southern Rural Water's labour costs comprise around 67 per cent of its total adjusted controllable operating expenditure over the PS5 regulatory period, which is higher than for other businesses (refer Appendix A). Given the differences between each business and its operating environment we have referred to this data in providing context only. We have not sought to use these comparisons as a basis for our assessment of the reasonableness of Southern Rural Water's forecast labour costs.

Southern Rural Water attributes around $1 million of the baseline increase to real wage increases under its Enterprise Agreement (EA). It is forecasting a reduction in total labour costs of around 4.3 per cent between 2023-24 and 2027-28.

Southern Rural Water attributes a further (approximately) $0.4 million per year to an uplift in staff capability, where existing positions have been reclassified to reflect higher levels of expertise that it considers are necessary to respond to the demands of its business and operating environment. Southern Rural Water identified the drivers of its changing staff needs as including increases in technology, increased investment in health and safety, cyber security, governance and compliance activities.

[9] Essential Services Commission 2018, p.11.

We further explored some of the more significant drivers of increased costs in discussions with Southern Rural Water. Southern Rural Water PS5 submission identifies water resource compliance and cyber security as two areas where new obligations have emerged in the PS4 regulatory period.[10] This has impacted both labour costs and investment in technology and systems.

3.3.3 Water resource compliance

Southern Rural Water's obligations in relation to water resource compliance include managing water theft. The *Water and Catchments Legislative Amendment Act 2019*, which came into effect in October 2019, introduced stronger penalties and enforcement measures for water theft.[11] This reflects a 'zero tolerance' approach to water theft under the Letter of Expectations[12] provided by the Minister for Water to all 19 Victorian water businesses. The Department of Environment, Land, Water and Planning (DELWP) also issued guidelines requiring water businesses to implement effective compliance strategies.[13]

An independent review commissioned by the Minister for Water completed in May 2020 introduced additional responsibilities for rural water businesses to strengthen water compliance and management. This report set a target for businesses to reduce water theft from up to 3.6 per cent of rural water volumes to less than 1 per cent.[14] This requires more rigorous management and monitoring of compliance and enforcement and risk-based reporting to DELWP, now the Department of Energy, Environment and Climate Action (DEECA).

Southern Rural Water has addressed these requirements through its *Water Resources Compliance and Enforcement Strategic Plan*, completed in May 2020. This plan sets out the key legislative and organisational context (including guidelines issued by DELWP), its organisational strategy and objectives, approach to compliance and enforcement and customer commitment.

Fulfilling its obligations in relation to monitoring and compliance requires a physical presence (i.e. field staff) across a relatively large geographic area. It also requires the

[10] Southern Rural Water 2022, Price Submission 2023, p.70.

[11] https://www.water.vic.gov.au/water-for-agriculture/taking-and-using-water/non-urban-water-compliance-and-enforcement-in-victoria {accessed 4 January 2023}.

[12] Letter of Obligations, section 2.1.8.

[13] https://www.water.vic.gov.au/water-for-agriculture/taking-and-using-water/non-urban-water-compliance-and-enforcement-in-victoria {accessed 4 January 2023}

[14] https://www.premier.vic.gov.au/zero-tolerance-water-theft-victoria {accessed 4 January 2023}.

collection and monitoring of metering data and investigations where necessary. This requires investments in labour resources and technology. Systems improvements are also required to comply with DEECA's reporting obligations.

3.3.4 Cyber security

As outlined in Appendix A, the need to improve cyber security capability has been identified as a common issue across water businesses. Southern Rural Water provided us with documents outlining its approach to addressing its cyber security risks under its ICT strategy, having regard to the Victorian Protective Data Security Framework.[15] This has included appointing a network supervisor.

As with other water businesses, Southern Rural Water has also transitioned from on-site servers to Cloud-based platforms (refer Appendix A). This means that expenditure previously categorised as capital is now categorised operating expenditure. Southern Rural Water identified this reclassification as one of the reasons why its actual 2021-22 expenditure is higher than the benchmark allowance approved by the Commission.

We note that Southern Rural Water has not proposed any further increases or step changes for ICT expenditure in the PS5 regulatory period, which it forecasts will incur a total annual budget of $2.7 million.

3.3.5 Other

Consistent with all water businesses (refer Section 1.2), Southern Rural Water has faced an increase in insurance costs during the PS4 regulatory period. It estimates the increase to be around $0.25 million per year.

Southern Rural Water also cited increased investment in health and safety to ensure that it remains compliant with changing legislative and government requirements, having regard to its organisational risk assessment. This has resulted in the creation of a new role, along with increased investment in management and reporting systems.

3.3.6 Overall assessment of baseline operating expenditure

We have reviewed the key drivers of Southern Rural Water's proposed increase in 2021-22 baseline operating expenditure and are satisfied that they have been substantiated and the costs are reasonable. The baseline does not appear to include any items that are non-recurring.

[15] https://ovic.vic.gov.au/information-security/framework-vpdsf/ {accessed 4 January 2023}.

We therefore do not recommend any adjustments to Southern Rural Water's 2021-22 baseline expenditure.

3.4 Assessment of the step changes

Southern Rural Water is not proposing any step changes to baseline operating expenditure for the PS5 regulatory period.

3.5 Adjustment for non-prescribed storage operator costs

As noted above, the Commission has previously adjusted Southern Rural Water's benchmark allowance for controllable operating expenditure to reflect the costs associated with non-prescribed storage operator charges. We have assumed that this same adjustment will be applied in the PS5 regulatory period.

3.6 Summary of controllable operating expenditure assessment

The key driver of Southern Rural Water's increase in controllable operating expenditure between the PS4 and PS5 regulatory periods is an increase in 2021-22 baseline expenditure above the benchmark allowance approved by the Commission in the last price review. We are satisfied that the key drivers of the additional expenditure are reasonable, and the baseline does not appear to include any items that are non-recurring.

Southern Rural Water has not proposed any further step changes to its baseline operating expenditure and its net growth in operating expenditure is zero per cent per year.

Based on Southern Rural Water's PS5 submission, discussions with the business and the further information it provided, we consider that the adjusted controllable operating expenditure in 2021-22 is consistent with a prudent business operating efficiently and we do not recommend any further adjustments.

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).*[16]

We have assessed Southern Rural Water's forecast capital expenditure for the PS5 regulatory period focusing on the significant areas of expenditure.

The assessment considered the details provided in the submission and any additional information requested, against the criteria set out in Figure 4.1.

Figure 4.1: Capital expenditure assessment criteria

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

The assessment of Southern Rural Water's major project capital expenditure is based on the information provided in the PS5 submission, additional supporting information and Southern Rural Water's overall approach to the development of the program, the cost estimation and the delivery within the PS5 regulatory period.

[16] Essential Services Commission, 2023 Water Price Review: Guidance Paper, August 2022 Amendment, p.33.

The assessment of the program expenditure has been based on supporting documents that underpin the level of expenditure within key programs and additional information provided.

4.2 Assessment of overall capital program

4.2.1 Link to customer outcomes and obligations

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

- modernise irrigation to improve water supply efficiency and reliability
- upgrade spillways, tunnels, siphons and valves to mitigate asset failure and supply reliability risks
- renewals programs to provide a reliable and sustainable water supply.

4.2.2 Comparison of forecast and actual capital expenditure – PS4

Southern Rural Water expects to deliver a capital expenditure program of $163.5 million within the PS4 regulatory period. This is 41 per cent more than the capital expenditure benchmark allowance approved by the Commission for the PS4 regulatory period.

There were significant variations to the planned PS4 period capital expenditure program including:

- a larger proportion than forecast for the government co-funded Macalister Irrigation District (MID) Modernisation Phase 1b project completed within the PS4 regulatory period ($9 million)
- an expansion of the irrigation modernisation program in the PS4 regulatory period to include the government co-funded MID Modernisation Phase 2 project on receipt of grant funding (additional $28.8 million expenditure to the initial reduced forecast)
- four new projects triggered by grant funding and increased asset risks ($13.8 million)
- additional scope for four projects (MID modernisation Phase 1b, BMID modernisation, Maffra weir operating gear and Werribee office redevelopment) ($8.1 million)
- deferral of Glenmaggie Spillway Gate repainting and Asset Management system upgrade projects ($4.8 million)

- cost and budget reductions for two projects (MID channel bank removal and WID modernisation) ($2.4 million).

Southern Rural Water has forecast a carryover expenditure into the PS5 regulatory period for the MID irrigation modernisation Phase 2 project ($23.9 million), which will be offset by government funding ($18.6 million). However, the 2022-23 forecast of $54 million represents a significant step-up in annual expenditure, with inherent risks of further capital expenditure being delayed to the PS5 regulatory period.

As part of this review, we sought a progress update from Southern Rural Water on 2022-23 expenditure. Southern Rural Water advised that since forecasts were prepared for the PS5 submission, there has been delays in procurement activities for the modernisation projects. As a result of current market conditions, it expects to carryover a further $5-10 million into the 2023-24 forecast expenditure, which was not included in the PS5 regulatory period forecasts.

While a range of variations are proposed to capital expenditure in the PS4 regulatory period as identified above, Southern Rural Water has received approximately $72 million in government contributions towards the program (including additional projects). This has required additional effort to balance the investment in mitigating asset risks and co-funded modernisation works. The outcome of the increased investment is a significant benefit to Southern Rural Water customers.

4.2.3 Forecast capital expenditure – PS5

Southern Rural Water's capital expenditure forecast for the PS5 regulatory period is $125.1 million. This is:

- $38.4 million (or 23 per cent) less than its actual capital expenditure (including 2022-23 forecast) over the PS4 regulatory period
- $97.5 million (or 353 per cent) more than the forecast capital expenditure outlook for the PS5 regulatory period that it included in its PS4 submission.

It is worth noting that the large government co-funded irrigation modernisation projects were uncertain at the time of the PS4 submission and hence excluded from the PS4 and PS5 capital expenditure forecasts at that time.

The capital expenditure for the PS5 regulatory period will be offset by government funding ($18.6 million) and bulk water entitlement sales ($12.5 million). Southern Rural Water confirmed that the government funding is committed regardless of the project completion date and the water sale volumes are conservatively low despite the likely demand for the water (based on recent engagement with irrigators).

The key drivers for the PS5 capital expenditure program are:

- improvements/compliance of $54.0 million gross; excluding government funding, which is 43 per cent of the total forecast capital expenditure
- renewals of $71.0 million, which is 57 per cent of the total forecast capital expenditure.

Southern Rural Water's top 10 major projects together account for $55.8 million (gross, excluding government contributions) and the remaining total program expenditure accounts for $69.3 million. The major areas of expenditure are:

- irrigation modernisation projects ($37 million), which are co-funded by government
- a range of larger asset renewal projects ($18.9 million) including spillway, tunnel, siphons, flume and valve
- irrigation distribution renewal projects and programs ($20 million)
- dams and storages renewal projects and programs ($18.9 million).

Based on the information contained in Southern Rural Water's PS5 submission, the major projects are clearly justified and well linked to regulatory and customer service outcomes.

We selected two major projects (Main Southern Carrier Tunnel No 5 Remediation Project and Groundwater and River Meter Upgrade Project) to confirm the level of planning supporting the projects, their scope and cost estimates. For both projects, there was comprehensive supporting information, with further work identified to refine the scope of the tunnel remediation project.

Excluding the committed and continuing modernisation projects, most of the capital expenditure is directed at renewals and at a sustained higher level than was anticipated in 2018. In explaining the higher levels of renewals expenditure, Southern Rural Water advised that it has been able to further develop its previously immature capital works program because of increased asset condition assessments and improved asset criticality and risk assessment processes. It also advised that it had to some extent reduced business-as-usual renewal expenditure in the PS4 regulatory period to accommodate the large and expanded modernisation program.

Southern Rural Water provided us with further information and explanations around a range of individual items of forecast expenditure for the PS5 regulatory period.

Based on the current levels of capital expenditure delivered in the PS4 regulatory period, the continuing MID modernisation Phase 2 project, the reduced scale of the PS5 capital program, and the approaches to delivery outlined below, we are confident that Southern Rural Water can deliver the overall level of expenditure in the PS5 regulatory period.

4.2.4 Underlying processes for developing the program

Southern Rural Water has developed its capital program in-line with its asset management and risk management frameworks. Southern Rural Water's Capital Procedure Manual 2021 guides the investment decision making, capital prioritisation, cost estimation and procurement decisions.

As renewals are the predominant driver of Southern Rural Water's capital expenditure, the risk assessments and relative risk ratings are of particular importance with project justification. Southern Rural Water's capital procedure manual includes details around risk assessments and the prioritisation tool.

Southern Rural Water has included large and medium size projects in the capital expenditure program with a risk rating of high or greater. It has not included larger projects that are more uncertain but aims to have business cases completed in advance of the PS6 regulatory period.

Based on the information in Southern Rural Water's PS5 submission along with the additional information provided to us, we are confident that it has adopted a well-developed process around the development of the capital expenditure program, which is considered consistent with a prudent service provider operating efficiently.

4.2.5 Reliability of cost estimation

Southern Rural Water uses P50 capital cost estimates for projects greater than $0.15 million in accordance with its Capital Procedure Manual. Southern Rural Water advised that it generally estimated costs for projects and programs with less than $0.150 million expenditure using historical base costs with contingency added reflecting the level of project development and in line with its Capital Manual Procedure.

Southern Rural Water has identified its capacity to re-prioritise and re-scope projects as a tool to mitigate the risks of higher than planned capital expenditure.

We consider that Southern Rural Water's approaches to cost estimation provide an appropriate basis for developing the forecasts for its PS5 capital expenditure program.

4.2.6 Deliverability of capital program

Southern Rural Water confirmed that it will continue to tender large projects but in advance of the PS5 regulatory period it is developing a procurement strategy for medium projects which will look at delivery options (such as, bundling and a larger ongoing new contract (or contracts) for the minor capital program).

Southern Rural Water advised that it has recently re-shaped its delivery team to deliver the capital expenditure. In advance of the PS5 regulatory period, it is also considering establishing external panel arrangements to assist in delivering the forecast capital expenditure.

Given the overall reduction in the scale of total expenditure compared to the PS4 regulatory period, and the further strategies expected to be in place for the PS5 regulatory period, we expect that Southern Rural Water can deliver the program in the PS5 regulatory period.

4.3 Assessment of major projects and major programs

4.3.1 Major projects

Southern Rural Water's major project capital expenditure totals $55.8 million and accounts for 45 per cent of its forecast capital expenditure for the PS5 regulatory period. Southern Rural Water's PS5 submission includes major project summaries which provide sufficient clarity on their justification and links to customer outcomes, risk and/or regulatory obligations. Its proposed capital projects aim to:

- modernise irrigation to improve water supply efficiency and reliability
- upgrade spillways, tunnels, siphons and valves to mitigate asset failure and supply reliability risks.

There were minor discrepancies in three of the project costs quoted in sections 3 and 8 of the PS5 submission. Southern Rural Water confirmed that the forecasts used for section 3 have been superseded, and the updated costs are included in section 8. There is no impact on the financial model.

We selected two major projects (Main Southern Carrier Tunnel No 5 Remediation Project and Groundwater and River Meter Upgrade Project) to gain a better understanding of the scope of these projects and assess the level of supporting detail. We also sought further information from Southern Rural Water around the risks associated with realisation of the $12.5 million in bulk water entitlement sales that will, along with government contributions, reduce net capital expenditure in the PS5 regulatory period. These projects are further discussed below.

Main Southern Carrier Tunnel No 5 Remediation Project – $3.3 million

We requested and reviewed the business case[17] for this project to better understand the scope, key risks, options considered and basis for cost estimation. The project is expected to address a high risk associated with continued operation of the tunnel. It will also produce significant water savings (4000 ML per year). The structural risks have been assessed by a technical consultant with five options quantitatively assessed and P50 costs developed.

There is still uncertainty around some aspects of the preferred solution and scope. Southern Rural Water identified a four to five year project delivery timeframe and a likelihood that interim remediation works may be required as part of the solution. We note that the theoretical water savings identified in Southern Rural Water's PS5 submission are not captured as part of the net present value assessment for the project. If these water savings are verified, accounted for and their value realised through future water sales, they could represent a significant future benefit to Southern Rural Water customers from this project.

Our review indicates that the project need and justification are strong and well supported, and that the proposed timing is appropriate. Although further planning is still required to resolve environmental impacts and to refine a more detailed scope and associated cost estimate, our view is that the current scope concept and associated cost estimate are appropriate as the basis for the budget cost estimate included in the capital expenditure forecast. As such, we do not recommend any adjustments to the proposed expenditure for this project.

Groundwater and River Meter Upgrade Project – $6.2 million

We requested and reviewed the business case[18] for this project to better understand the scope and level of expenditure. The project is the second phase of a program to comply with the Victorian Non-Urban Water Metering Policy. P50 cost estimates appear well developed using recent historical costs as a basis. This second phase more than doubles the number of meters delivered in phase 1 in the PS4 regulatory period. Southern Rural Water rates the residual risk with the delivery of the larger program as low on the basis that it considers that it has identified the most likely efficient procurement and delivery model for the project using the learnings gained from phase 1.

We consider that the project is well justified and deliverable in the PS5 regulatory period.

[17] Southern Rural Water, MSC Tunnel No. 5 Business Case – O.A 05/08/2022.

[18] GW - Meter Replacement Program Business Case – 1.0 10/08/2022.

Bulk Water Entitlement Sales – $12.5 million offset

Southern Rural Water outlined the process around identifying and accounting for water savings as capital expenditure offsets. The water savings arising from irrigation modernisation are governed by a process determined by DELWP (now DEECA). Southern Rural Water has identified 25 Gigalitres per year of water savings resulting from the irrigation modernisation with a minimum market demand among existing customers of 11 Gigalitres per year (based on customer engagement).

Southern Rural Water has adopted a conservative approach to developing its PS5 regulatory period forecasts by budgeting 5 GL of sales at a price of $2500 per ML.

Based on the information provided and discussions with Southern Rural Water, we are confident that the $12.5 million in capital offsets can be realised within the PS5 regulatory period to partially offset the total capital expenditure.

4.3.2 Major programs

Southern Rural Water has listed 11 programs in its PS5 submission totaling $69.3 million, of which renewals account for $55.7 million and improvements/compliance account for $13.6 million.

There is no direct comparison for expenditure in the listed individual programs between the PS4 and PS5 regulatory periods. However, based on Southern Rural Water's advice discussed above, increased expenditure across all renewal programs is likely.

We identified the key programs which have most of the program capital expenditure and sought further information from Southern Rural Water to demonstrate the basis for the forecast level of expenditure.

For the larger programs summarised below, Southern Rural Water provided more details around individual capital expenditure items included in the programs and these were considered in context of the capital prioritisation methodology outlined in its PS5 submission. We scanned each list and identified a range of expenditure items for further explanation around risk, specific driver, the level of expenditure and/or expenditure profile. Southern Rural Water provided sufficient explanations for each item and hence we did not identify any material expenditure items for further review.

Irrigation distribution renewals – $20 million

Further to our review, Southern Rural Water amended its irrigation distribution renewals program to $14.5 million based on an incorrect allocation of $5.5 million which should be included in the MID regulator replacement (renewals) program (discussed below). There is no change to the overall capital expenditure because of the re-allocation.

Southern Rural Water itemised a series of 75 (approximately) projects ranging in cost from $0.015-$0.973 million and provided further explanations around the selected items, which we considered were sufficient to support the expenditure

MID Regulator Replacement (Renewals) program – $1.2 million, updated to $6.7 million

The MID regulator replacement (renewals) program comprises mechanical and pedestal replacements at 200 sites. We requested and reviewed further information from Southern Rural Water related to the basis and scope of this program.

The business case[19] for this program outlines that the regulators selected for proactive renewal were mechanized between 2004 and 2007 and the gates and the electronic equipment housed within the pedestals have an estimated average life of 15 years. The failure patterns of these mechanical and electronic assets do not lend themselves to condition assessment or online monitoring. As a result, proactive replacement is the recommended treatment to ensure service continuity to customers within the MID. The number of sites is based on the number of regulators that have or will pass their serviceable life in the PS5 regulatory period.

We consider that the information provided was sufficient to support the expenditure.

Dams and storages renewals – $18.9 million

Southern Rural Water provided a comprehensive list of over 200 individual projects which make up the program. A broad range of projects were listed across multiple sites and asset types and ranged in cost from $7,500k-$907,000. We sought further explanations from Southern Rural Water on a small number of selected items that required further clarity. Southern Rural Water were able to provide sufficient supporting information around the selected items, for us to conclude that the program expenditure is justified and reasonable.

Improvement/Compliance upgrades for Dams and Storages – $4 million

This expenditure category comprises a series of 40 itemised projects ranging from $0.02 million to $0.4 million. Southern Rural Water provided further explanations around selected items, which we considered sufficient to support the expenditure.

[19] Southern Rural Water 2022, MID Regulator Replacement (Renewals) Business Case, 11 September.

Shared services renewals – $8.1 million

This program comprises approximately 10 projects predominantly related to motor vehicle replacement ($7.9 million). We requested and reviewed further information in relation to the number and type of vehicles, historical costs and price impacts.

Despite a reduction in the overall number of vehicles and further expected rationalisation of the fleet in the PS5 period, the program cost is approximately 23 per cent higher than pre-COVID-19 pandemic levels. Southern Rural Water confirmed that the increase in costs is due to a combination of delayed changeover (a backlog from the COVID-19 pandemic) and higher purchase prices for fuel efficient vehicles.

We consider that this provides sufficient explanation justifying the increased expenditure associated with shared services renewals.

ICT improvement/compliance upgrades – $7.9 million

Southern Rural Water's PS5 submission provides details related to this program including individual sub-program information. Operating efficiencies were identified with replacement of unsupported core ICT systems, software and hardware redundancy with some business cases and options analysis still pending.

Southern Rural Water advised that it has captured these efficiencies in its operating expenditure forecasts, which are outlined in its PS5 submission together with a breakdown of the program.

We consider that the information provided around the program expenditure above was sufficient to provide confidence that the expenditure is justified and reasonable.

4.4 Summary of capital expenditure assessment

Based on the information provided around the major projects and individual program expenditure along with the approaches to developing the program, the cost estimation and the delivery of the program 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 Southern Rural Water in the PS5 regulatory period.

As such, we do not recommend any adjustments to Southern Rural Water's forecast capital expenditure for the PS5 regulatory period.

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.[20]

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

[20] 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 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 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.

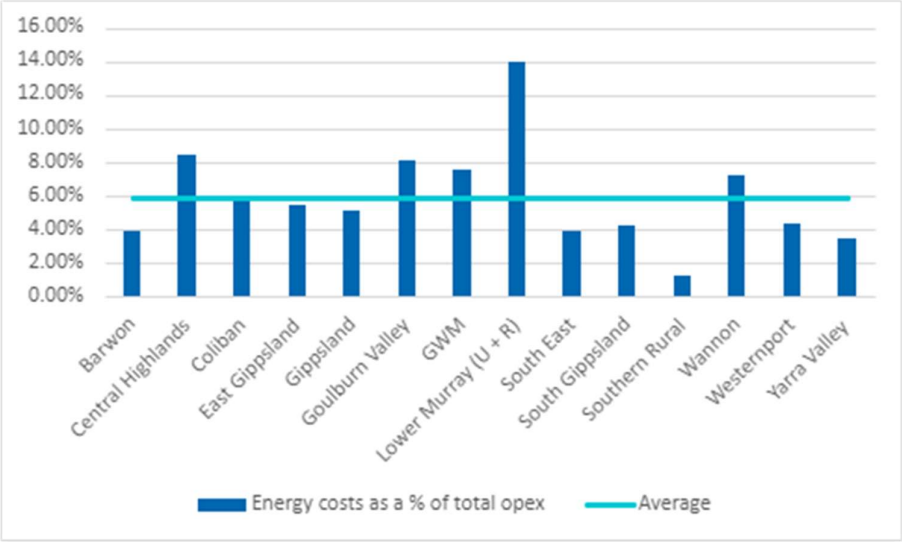
The most appropriate strategy depends on the needs and circumstances of the business, including the feasibility (and cost) of direct action measures such as solar PV.

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.

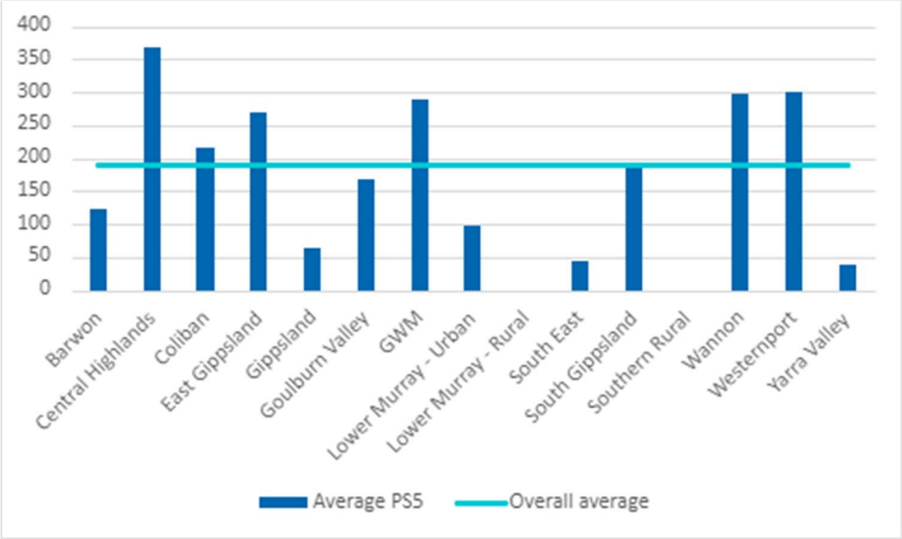
Figure A1: PS5 forecast total energy expenditure as a percentage of total controllable operating expenditure (%)



Source: Victorian water businesses, 2023 Price Review Models.

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

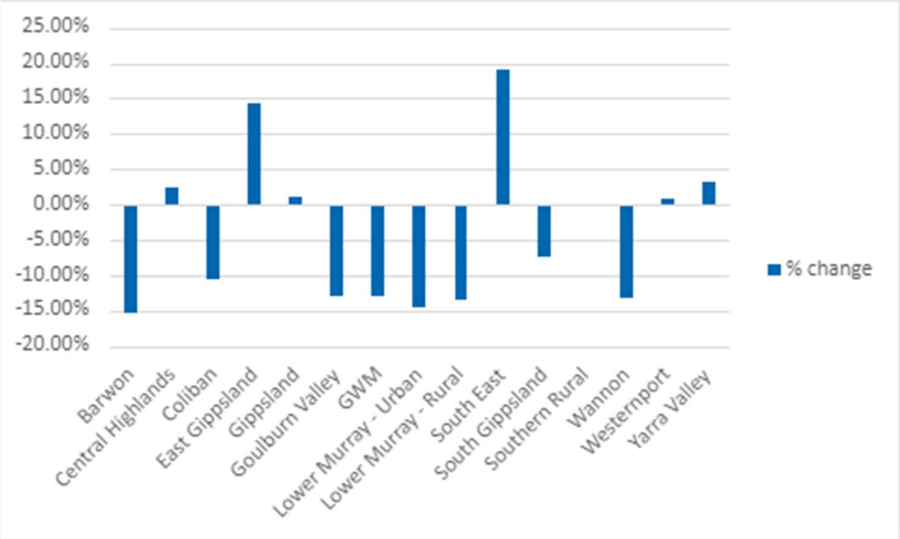
Figure A2: PS5 forecast energy costs per volume of water delivered ($ per ML, 1 January 2023)



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[21][2] and proposed PS5 energy expenditure for each business.

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

[21] Note that the water businesses' Price Review Models submitted to the Commission for this PS5 review include updated forecasts for financial year 2022-23.

- 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.[22]

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.

[22] https://technologyonecorp.com/saas/pathway-to-saas# {Accessed 13 December 2022}.

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 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.[23]

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

Other IT-related expenditure

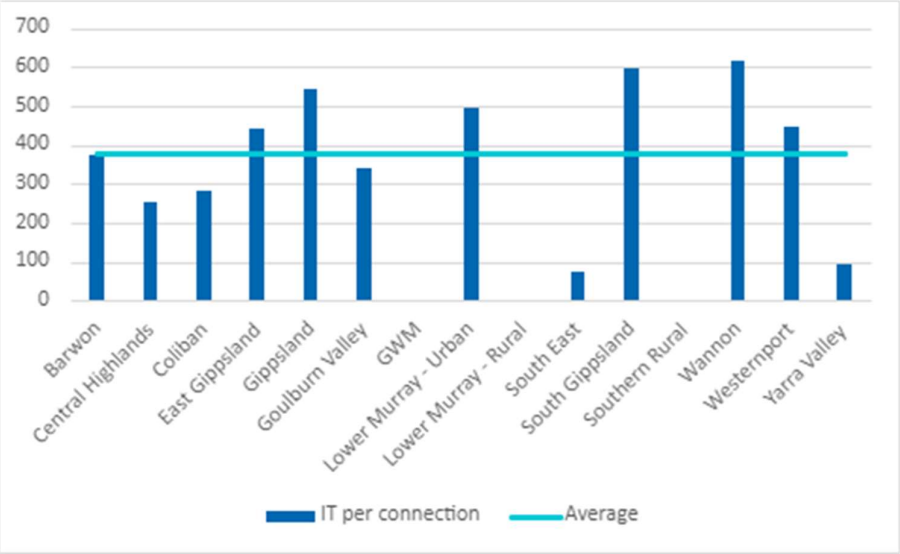
Depending on the functionality and maturity of each water business's current IT-architecture, other business-specific expenditure may be incurred in reviewing and upgrading this capability.

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. The red line in each chart reflects the average across all urban water businesses.

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

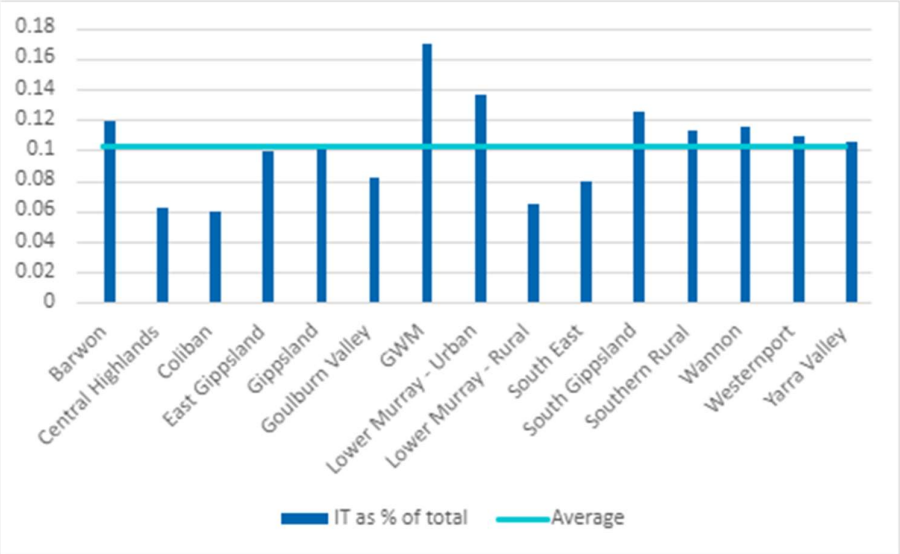
Figure A4: PS5 forecast: ICT operating expenditure per water connections ($ per average number of water connections, 1 January 2023)



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)[24] 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

[24] 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 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).[25] 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.

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

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

of most other advanced economies.[26] 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.[27]

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.[28] 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.[29]

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.[30] 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.

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

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

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

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

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

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.

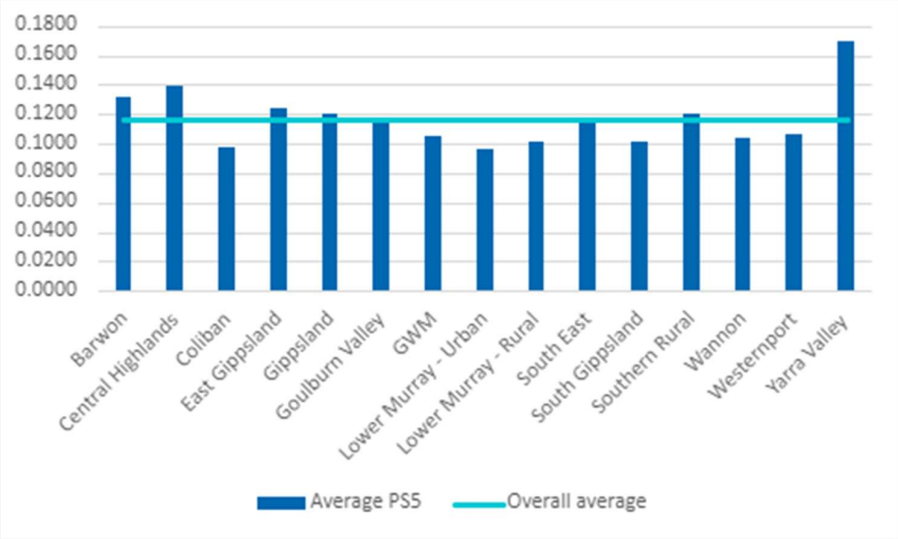
The impact of this will therefore vary between businesses and potentially within businesses given employees may be subject to different types of arrangements.

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. The red line in each chart represents the average across the businesses.

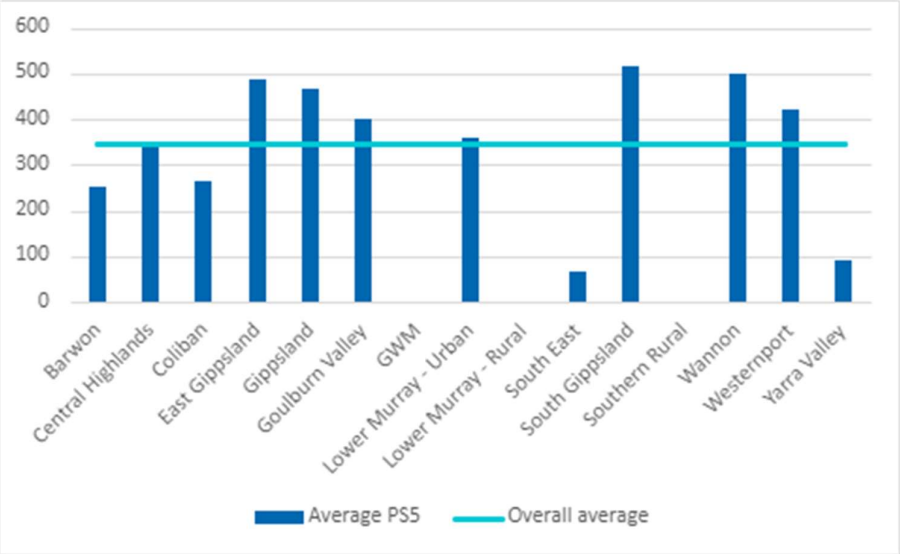
Figure A6: PS5 forecast average unit cost per FTE ($ million per FTE, 1 January 2023)



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.

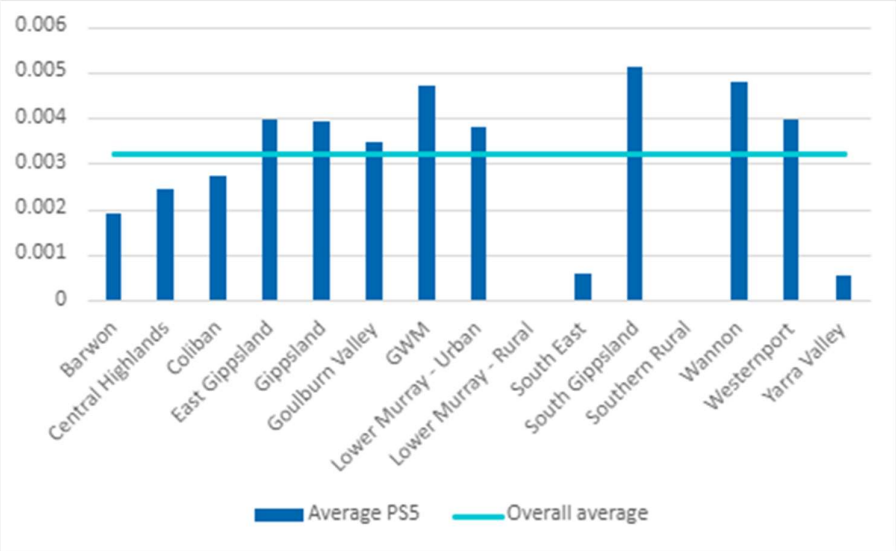
Figure A7: PS5 forecast: Average labour cost per water connection ($ per average number of water connections, 1 January 2023)



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).

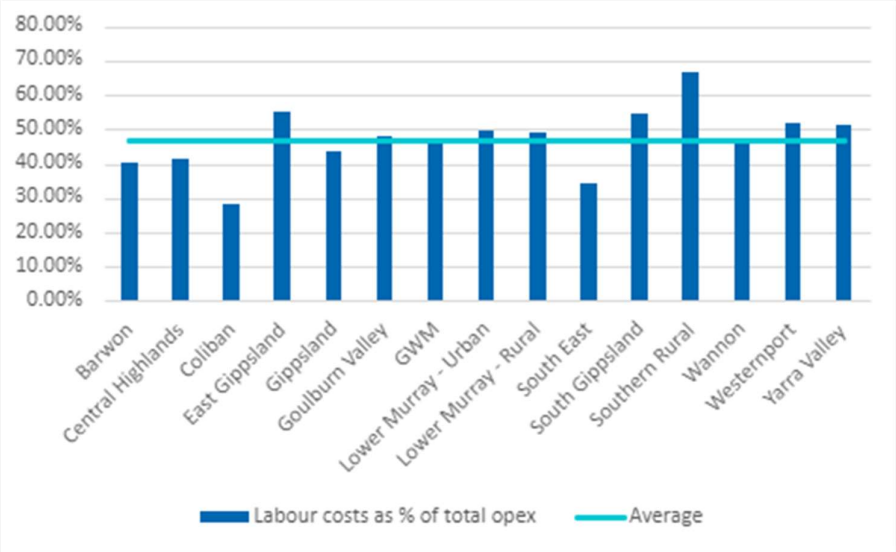
Figure A8: PS5 forecast average number of FTEs per water connection



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.