

February 2023



Barwon Water: Review of expenditure forecasts

2023 Water Price Review

Report disclaimer

This report is for the exclusive use of the Essential Services Commission to inform decisions in relation to the 2023 Water Price Review. There are no third-party beneficiaries with respect to this report, and FTI Consulting does not accept any liability to any third party.

Information furnished by others, upon which all or portions of this report are based is believed to be reliable but has not been independently verified, unless otherwise expressly indicated. Public information and industry and statistical data are from sources we deem to be reliable. However, we make no representation as to the accuracy or completeness of such information. FTI Consulting accepts no responsibility for actual results or future events.

The opinions expressed in this report are valid only for the purpose stated herein and as of the date of this report. No obligation is assumed to revise this report to reflect changes, events or conditions, which occur subsequent to the date hereof.

All decisions in connection with the implementation or use of advice or recommendations contained in this report are the sole responsibility of the client. This report does not represent investment advice, nor does it provide an opinion regarding the fairness of any transaction to any and all parties.

Table of Contents

Executive Summaryvi
Forecast operating expenditurevi
Forecast capital expenditureviii

1 INTRODUCTION 9

1.1 Purpose of this report 9
1.2 Context and challenges facing Victorian water businesses 9
1.3 Water industry regulatory framework..... 11
1.4 Methodology and approach..... 13
1.5 Structure of this report 13

2 SUMMARY OF EXPENDITURE PROPOSAL 15

2.1 Forecast controllable operating expenditure 15
2.2 Forecast capital expenditure..... 16

3 OPERATING EXPENDITURE ASSESSMENT 19

3.1 Overview of assessment approach 19
3.2 Key operating expenditure drivers across water businesses..... 20
3.3 Assessment of the baseline..... 23
3.4 Assessment of the step changes 36
3.5 Forecast growth and efficiency factors..... 49
3.6 Summary of controllable operating expenditure assessment..... 49

4 CAPITAL EXPENDITURE ASSESSMENT..... 51

4.1 Overview of assessment approach 51
4.2 Assessment of overall capital program 52
4.3 Assessment of major projects and major programs 57
4.4 Summary of capital expenditure assessment 59

APPENDIX A: CROSS-INDUSTRY OPERATING EXPENDITURE ISSUES 61

Overview 61
Energy expenditure..... 61

IT expenditure..... 67

Labour costs..... 71

APPENDIX B: LIST OF DOCUMENTS REVIEWED FOR ASSESSMENT OF BARWON WATER'S
FORECAST CAPITAL EXPENDITURE..... 11

Glossary

Term	Definition
DEECA	Department of Energy, Environment and Climate Action
DELWP	Department of Environment, Land, Water and Planning
EA	Enterprise Agreement
ESC	Essential Services Commission
FTE	Full time equivalent
FTI Consulting	FTI Consulting (Australia) Pty Ltd
GL	Gigalitre
kWh	Kilowatt
ML	Megalitre
PEER	Public Entity Executive Remuneration
PREMO	Performance, Risk, Engagement, Management and Outcome
PS4	Price Submission for the fourth regulatory period (2017-18 to 2022-23)
PS5	Price Submission for the fifth regulatory period (2023-24 to 2027-28)
PV	Photovoltaic
RBA	Reserve Bank of Australia
SaaS	Software as a Service
Schneider	Schneider Electric Energy and Sustainability Services
SGC	Superannuation Guarantee Charge
WIRO	Water Industry Regulatory Order
WPI	Wage Price Index
WRP	Water Reclamation Plant
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*¹ and the Commission's PREMO pricing framework. We have assessed Barwon Water's forecast operating and capital expenditure based on the guidelines contained in the Commission's *2023 Water Price Review: Guidance Paper*.

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

Forecast operating expenditure

Barwon Water's baseline 2021-22 controllable operating expenditure is \$115 million. This is \$16.4 million (or 16 per cent) more than the benchmark allowance approved by the Commission in the last price review. It has proposed step change increases to its baseline operating expenditure of \$15.2 million across the PS5 regulatory period.

Barwon Water has forecast an average growth factor for operating expenditure of 2.1 per cent per year and an efficiency factor of 1.95 per cent per year over the PS5 regulatory period.

Based on Barwon Water's PS5 submission, discussions with the business and the further information it provided, the revised adjusted controllable operating expenditure is somewhat consistent with a prudent business that operates efficiently and requires some adjustments. This reflects our view that:

- the key drivers of some of the overspend against the baseline appear reasonable
- the proposed step changes are mostly reasonable and supported by a sound rationale.

We recommend the following adjustments to Barwon Water's forecast controllable operating expenditure for the PS5 regulatory period:

¹ 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).

- a reduction in baseline 2021-22 controllable operating expenditure of \$3.50 million
- a reduction in proposed step changes by \$1.0 million
- an increase in the step change of \$13.0 million (those items removed from the baseline).

Table 3.1: Recommended adjustments – controllable operating expenditure (\$ 1 January 2023, millions)

	2023-24	2024-25	2025-26	2026-27	2027-28
Forecast controllable operating expenditure	117.44	118.21	119.15	119.52	118.65
Recommended adjustments:					
Baseline adjustments					
More expensive water sources turned on – Melbourne to Geelong Pipeline	0.40	0.40	0.40	0.40	0.40
Additional monitoring at Anglesea Borefield	0.30	0.30	0.30	0.30	0.30
Imminent safety issues at the Aqueduct	0.50	0.50	0.50	0.50	0.50
East Barwon willow tree removal	2.30	2.31	2.31	2.31	2.32
Step change adjustments					
<u>Deductions</u>					
Contribution to readiness investigations for future major water supply	0.00	0.00	0.66	0.65	0.55
<u>Additions</u>					
Additional resource for future major water supply	0.17	0.17	0.17	0.17	0.17
Additional monitoring at Anglesea borefield	0.23	0.23	0.35	0.45	0.46
Imminent safety issue at the Aqueduct	2.15				
East Barwon willow tree removal	4.13	2.02	1.10	0.92	0.92
Total recommended adjustments	(3.17)	1.09	2.56	2.64	2.52
Adjusted total operating expenditure	120.61	117.12	116.59	116.89	116.13

Forecast capital expenditure

Barwon Water has forecast capital expenditure of \$549.4 million for the PS5 regulatory period. This is:

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

Barwon Water's PS5 submission provides a detailed breakdown of its forecast capital expenditure for the PS5 regulatory period. The further information provided to us by Barwon Water in relation to the key issues for further investigation provides a reasonable level of confidence that the proposed capital expenditure program is consistent with the actions of a prudent business operating efficiently. The forecast capital expenditure is justified, robust and is capable of being delivered by Barwon Water in the PS5 regulatory period.

As a result, we do not recommend any adjustments to Barwon 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).² Each of the Victorian water businesses, including Barwon 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 prudence and efficiency of Barwon 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 businesses 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 current regulatory period covering 1 July 2018 to 30 June 2023 (the 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

² 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, resulting in higher than expected growth.³

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.

³ For example, refer: <https://population.gov.au/sites/population.gov.au/files/2021-09/the-impacts-of-covid-on-migration-between-cities-and-regions.pdf>, accessed 1 December 2022.

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

1.3 Water industry regulatory framework

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

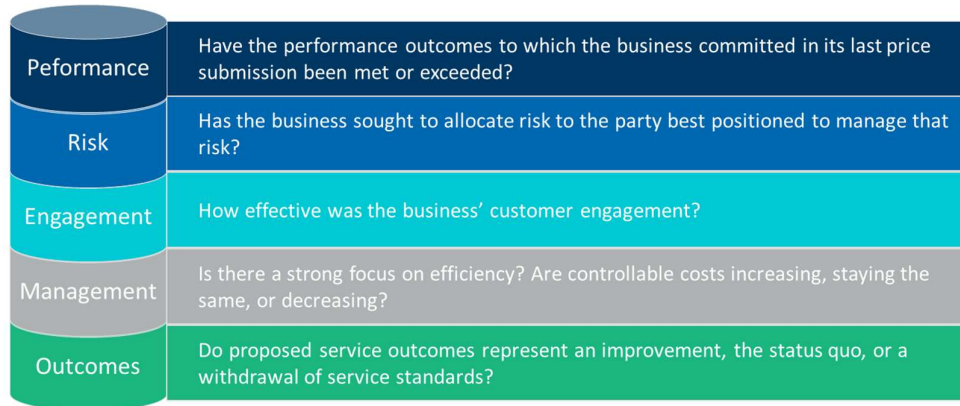
The Commission's regulatory framework places an emphasis on efficient delivery of services, and the assessment of the prudence and efficiency of a water business's expenditure forecasts is fundamental to achieving this objective.

In 2018, the Commission introduced a new approach called PREMO to regulate the prices charged by Victorian water businesses.⁵ As Figure 1.1 shows, 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.

⁴ 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)*.

⁵ 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 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 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 Commission’s *2023 Water Price Review: Guidance Paper* (the Guidance Paper) explains the Commission’s approach and methodology 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.⁶ 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 great value to their customers.

⁶ Essential Services Commission 2021, *2023 Water Price Review: Guidance paper*, 26 October.

1.4 Methodology and approach

The scope of our assessment is limited to examining water businesses' forecast operating and capital expenditure over the PS5 regulatory period. It does not include making decisions 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.

Our methodology for assessing Barwon 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 assessment includes:

- for forecast operating expenditure focusing on controllable expenditure only. We have assessed proposals using the base-step-trend approach as set out in the Commission's Guidance Paper which 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, focusing 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 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
- A Stage 1 (preliminary) assessment workshop undertaken with Commission staff identifying the key issues to be explored in our more detailed review
- 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
- 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 Barwon Water's expenditure proposals

- Chapter 3 sets out our assessment of Barwon Water’s operating expenditure proposals
- Chapter 4 sets out our assessment of Barwon 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.

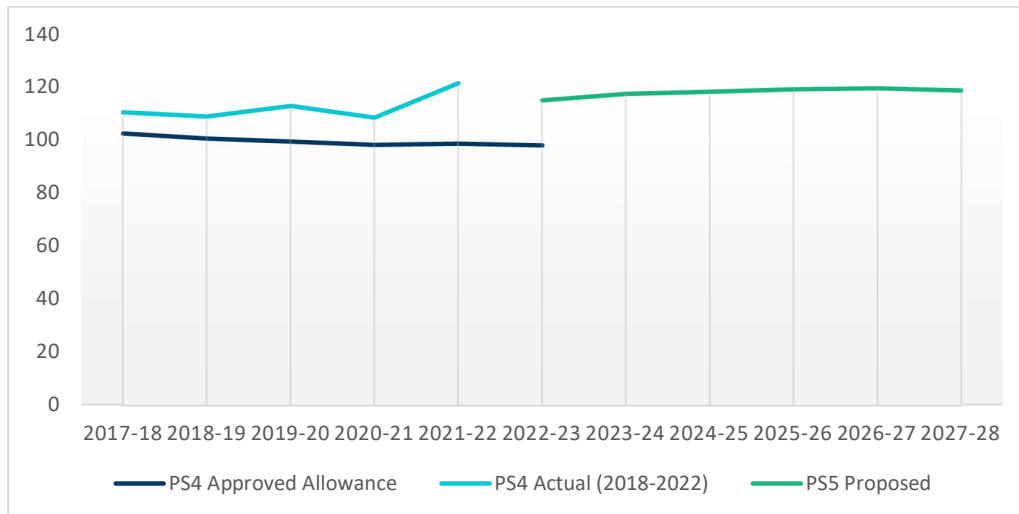
2 SUMMARY OF EXPENDITURE PROPOSAL

2.1 Forecast controllable operating expenditure

For the current PS4 regulatory period, the Commission approved a benchmark allowance for controllable operating expenditure for Barwon Water of \$495 million (\$ 1 January 2023).

For the first four years of the PS4 regulatory period, Barwon Water’s actual controllable operating expenditure was \$55 million (or 13.7 per cent) above the benchmark allowance approved by the Commission for those four years.

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



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

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

Barwon Water’s baseline 2021-22 controllable operating expenditure is \$115 million which is \$16.4 million (or 16 per cent) above the benchmark allowance approved by the Commission in the last price review.

Barwon Water has proposed step changes to the baseline of \$15.2 million across the PS5 regulatory period, as outlined in Table 2.1.

Table 2.1: Barwon Water’s proposed step change (\$ 1 January 2023, millions)

Step change item	Expenditure forecast
Implementation of Barham Catchment priority actions	1.6
Contribution to readiness investigations for future major water supply	1.9
Smart networks	3.1
Cyber security uplift	5.3
Upper Barwon River Health initiatives (CCMA Living Barwon initiatives)	0.9
Stretch RAP – including strengthening relationship with Eastern Maar	0.7
Prepare and implement decommissioning plan for Barwon Downs	0.8
Increase to hardship program (direct customer support payments)	0.8
TOTAL	15.2

Source: Barwon Water, 2023-28 Price Submission and associated Financial Model, 30 September 2022.

The forecast increase in operating costs averages 2.1 per cent per year, based on expected customer growth. The proposed efficiency factor is 1.95 per cent per year based on some internal efficiency programs and initiatives. This gives a net growth factor of 0.15 per cent per year. Barwon Water’s gross efficiency factor was the second highest of all water businesses.

2.2 Forecast capital expenditure

Barwon Water has forecast capital expenditure of \$549.4 million for the PS5 regulatory period. As shown in Figure 2.2, this is:

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

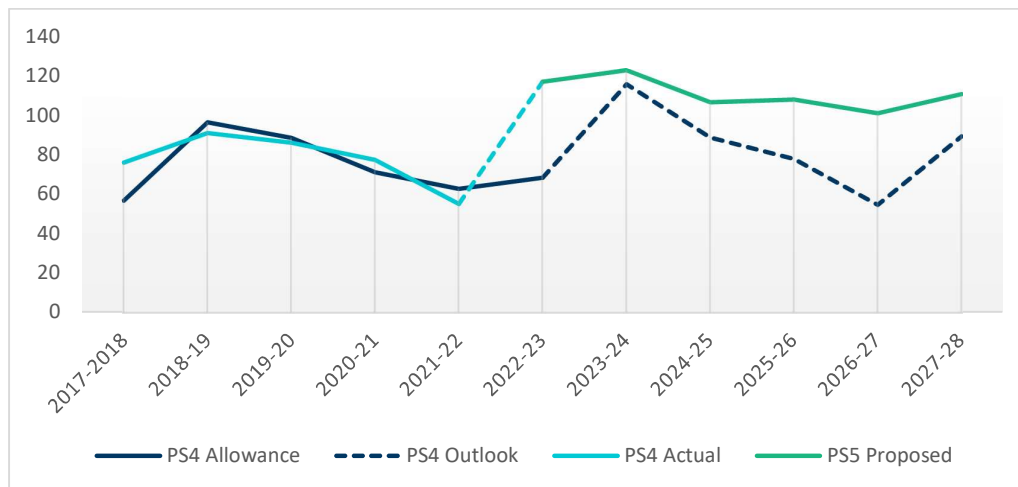
The key drivers, projects and programs are:

- Renewals (45 per cent of the total capital expenditure program)
- Growth (33 per cent of the total capital expenditure program)
- top 10 major projects, which appear well defined and appropriately costed (\$106.6 million)

- 17 major programs (\$233 million), including Barwon Water’s Digital Strategy (\$18.7 million)
- staged deployment of digital meters (\$8.4 million).

These projects and programs appear to be very well linked to and supported by relevant strategies, customer outcomes and engagement results.

Figure 2.2: Barwon Water’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: Barwon Water, YVW_2023 Price Review Model - 20220929, 3 October 2022; Essential Services Commission 2018, Barwon Water Determination Price Review Model: 1 July 2018 – 30 June 2023, 29 May.

Barwon Water’s top 10 capital expenditure projects, shown in Table 2.2, account for around 19.4 per cent of its proposed capital expenditure for the PS5 regulatory period.

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

Major capital expenditure project	Expenditure forecast
Melbourne to Geelong pipeline (MGP) booster pump station	18.5
Pettavel Basin augmentation	17.5
Colac Water Reclamation Plant upgrade	14.6
Recycled water on the Bellarine (Stage 3)	13.6
Colac Birregurra pipeline	10.1
Bannockburn South pump station and rising main	8.4
Clifton Springs tank upgrade	7.2
Queenscliff Transfer Main replacement	6.6
Portarlinton 6 ML Tank improvements Stage 2	5.1
Indented Head St Leonards Feeder Main Stage 3	4.9

Source: Barwon Water, 2023-28 Price Submission and associated Financial Model, 30 September 2022.

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 Barwon 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.

⁷ Essential Services Commission 2022, 2023 Water Price Review: Guidance Paper, August Amendment, p.28.

The key steps in our approach were as follows:



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

Electricity costs

The information submitted by each of the businesses indicates that most are applying the 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.

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

⁸ Schneider Electric 2022, Electricity Price Forecast, Covering FY23 to FY28, Base Case, 23 March, p.17.

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

Labour costs

As for IT expenditure, we have used the labour cost 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 Barwon Water's forecast controllable operating expenditure for the PS5 regulatory period.

3.3 Assessment of the baseline

After adjusting for non-recurring items, Barwon Water's adjusted controllable operating expenditure in 2021-22 was \$115 million. This is \$16.4 million (or 16 per cent) more than the benchmark allowance of \$99 million.

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

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

Table 3.3 provides a breakdown of Barwon Water's \$16.4 million of additional expenditure in 2021-22 against the benchmark allowance.⁹

⁹ Barwon Water 2022, Price submission 2023-28, Figure 2-1, September, pp.13, 60-61.

Table 3.2: Barwon Water's 2021-22 baseline controllable operating expenditure overspend (1 January 2023, millions)

Challenge/ Opportunity	Additional operating expenditure item	\$ millions
Threats to water security	Water security engagement and planning (two-year Water for our Future program)	0.4
	More expensive water sources turned on - Melbourne to Geelong Pipeline	0.4
	More expensive water sources turned on - Recommissioning Anglesea borefield	0.3
	Total	1.1
Higher than forecast growth - resulting in increase in maintenance and customer service functions	Customer growth - Increase in civil maintenance costs by Barwon Asset Solutions	0.8
COVID led to an overhaul of our customer service model	Additional customer support costs	0.7
Greater expectations in relation to community safety and the environment	Additional monitoring at Anglesea borefield	0.3
	Imminent safety issues at the Aqueduct	0.5
	East Barwon willow tree removal	2.3
	Recycled water investigations	0.1
	Total	3.2
Innovation and transformation delivering greater value for customers	Labour costs	3.7
	Infrastructure transformation	0.7
	Technology uplift	0.4
	Business transformation	0.4
	LEAD 2030 program	0.2
	Total	5.4
Other expenditure outside of categories above	Government mandated labour cost changes	0.5
	Insurance and legal settlement costs	1.0
	After hours contact centre service	0.4
	Various other	2.8
	Total	4.7
TOTAL		15.9

3.3.1 Threats to water security – \$1.1 million

In June 2019, a new Permissible Consumptive Volume for the Gerangamete Groundwater Management Area was Gazetted, preventing Barwon Water from obtaining a new licence to extract groundwater from the Barwon Downs borefield. The Barwon Downs borefield was a major water supply source for Geelong and previously used as a cost-effective back-up water source. Without the Barwon Downs borefield, Barwon Water estimated that demand could outstrip supply by 2027 (rather than 2044 as previously predicted) across the Geelong, Golden Plains, Bellarine and Surf Coast systems.

As a result of threats to water security, Barwon Water increased its use of more expensive water sources through the Melbourne to Geelong pipeline and recommissioned the Anglesea borefield to supplement water supplies for customers across the Geelong, Golden Plains, Bellarine and Surf Coast system. Barwon Water has identified several components to the additional expenditure it incurred as part of its response, which are summarised below.

We have assessed each of these components in terms of efficiency and prudence and whether they will be ongoing such that they should be included in the baseline operating expenditure.

Water security engagement and planning – \$0.4 million

Following the 2019 Ministerial direction to cease using the Barwon Downs borefield, Barwon Water conducted an extensive customer and community engagement and planning project to identify new water supplies and maintain water security. The two-year engagement supporting the Water for Our Future engagement program was undertaken between 2020 and 2022. Following this, Barwon Water published its 2022 Urban Water Strategy – Water for Our Future (the Strategy).¹⁰

Barwon Water proposes further expenditure over the PS5 regulatory period to implement 25 key actions in the Strategy, some of which are due to the loss of water from Barwon Downs. It provided further details regarding this expenditure, which outlined the full range and scope of works proposed to be undertaken during PS5.¹¹

¹⁰ Barwon Water, Water for our Future: Urban Water Strategy 2022, pp.20-23, https://www.barwonwater.vic.gov.au/data/assets/pdf_file/0025/290626/Urban-Water-Strategy-2022-Water-for-our-Future.pdf.

¹¹ Barwon Water 2023, Response to FTI Consulting's Draft 'Barwon Water: Review of expenditure forecasts' Report, 14 February, pages 3-5.

We have assessed the information provided by Barwon Water for this expenditure category and are confident that it is ongoing and should be included in the baseline operating expenditure.

Melbourne to Geelong Pipeline – \$0.4 million

Water storage levels dropped significantly in 2019 due to dry hot conditions and below-average rainfall. The Melbourne to Geelong Pipeline was brought online and used during summer peak demand periods to reduce demand on the Wurdee Boluc treatment plant. Barwon Water advised that the Melbourne to Geelong Pipeline (MPG) now forms part of the permanent annual water supply to manage overall regional water storages and supplies.

Barwon Water clarified that it adopted a new operating model for the MPG in 2020, which was not included in the PS4 allowance. This operating model considers capacity constraints at Wurdee Boluc and other sources of water for the Geelong system to give more peak-day and peak-week operational contingency. In those peak periods of the year there is a need to procure additional water from the MGP to meet operational requirements. Barwon Water consider this a permanent requirement and part of baseline operating expenditure as it will be needed on an ongoing basis.¹²

Barwon Water has not provided a clear breakdown and justification for the \$0.4 million operating expenditure associated with the Melbourne to Geelong Pipeline.¹³ It is unclear from the explanation provided by Barwon Water how this expenditure is different to the charges for access to water from the Melbourne to Geelong Pipeline, which is considered as non-controllable operating expenditure.

As Barwon Water has not clearly substantiated why this additional expenditure should be included in its baseline controllable operating expenditure, we recommend that the benchmark allowance is adjusted to remove the forecast expenditure associated with this item.

Recommissioning Anglesea borefield – \$0.3 million

In September 2018, the Minister for Water directed Barwon Water to not use the Barwon Downs Borefield.¹⁴ As a result, Barwon Water recommissioned the Anglesea Borefield in

¹² Barwon Water 2023, email from Regulation and Pricing Coordinator.

¹³ Barwon Water 2022, Price submission 2023-28, Appendix 1, p.96.

¹⁴ Barwon Water 2022, Price submission 2023-28, Appendix 1, p.96.

2018-19 as low storage levels required a second new supply source, which is currently the only backup water supply for the southern catchments of Geelong and the Surf Coast.

Barwon Water outlined that the additional expenditure is required for the ongoing maintenance and operating costs required to keep the bores in good standby condition and maintain the treatment plant at the borefield.¹⁵

We consider that Barwon Water has provided adequate substantiation of the baseline increase attributable to operating expenditure associated with recommissioning the Anglesea borefield and the magnitude of costs appear reasonable. We consider this expenditure to be ongoing in maintaining and running this borefield.

3.3.2 Increase in maintenance costs – \$0.8 million

Barwon Water advised that the costs of civil maintenance delivered by Barwon Asset Solutions (BAS) have increased due to higher than budgeted growth rates in the region,¹⁶ increased time allocated to safety functions (including COVID-19 response measures), as well as an increase in employment costs as a result of aligning BAS with Barwon Water's 2022 Enterprise Agreement (EA) and a review of the banding classification of a number of positions.¹⁷ Barwon Water considers that costs are likely to continue at this higher level throughout PS5.

Our view is that maintenance costs should not typically increase due to new assets as part of customer growth and that there is not a one-for-one increase in maintenance costs with an increase in customer numbers. However, we recognise that some increase in maintenance activity can be expected with growth. We also note the increase in employment costs, including to align with Barwon Water's updated EA. We are therefore not proposing to make any adjustments to 2021-22 baseline expenditure for these costs.

3.3.3 Additional customer support costs

In response to the COVID-19 pandemic, Barwon Water implemented additional customer experience and customer care programs. This included proactively contacting customers to discuss support and communicating with customers about faults and incidents. It also implemented a new outbound customer call program to support customers in hardship.

This additional expenditure for customer support and communications is proposed to continue. While improvements to call handling for vulnerable customers were initially

¹⁵ Barwon Water 2022, PS23 Baseline Operating Expenditure adjustment – response to FTI Consulting 22 December, page 5.

¹⁶ Barwon Water has a Maintenance Services Agreement (MSA) with Barwon Asset Solutions (BAS).

¹⁷ Barwon Water 2022, Price submission 2023-28, Appendix 1, p.97.

prompted by the COVID-19 pandemic, customers have advised Barwon Water that they would like these enhancements to continue.¹⁸

We consider that Barwon Water has provided sufficient justification for the increase in baseline operating expenditure and why these costs are likely to be ongoing.

3.3.4 Greater expectations in relation to community safety and the environment

Additional monitoring at Anglesea borefield – \$0.3 million

As noted above, Barwon Water has recommissioned Anglesea borefield as it is no longer able to access to Barwon Downs borefield. It anticipates that the Anglesea borefield will now be used more frequently as a water source as Barwon Water approaches the point at which demand is expected to outstrip supply. Barwon Water's use of the Anglesea borefield is conditional on it undertaking a review of bulk entitlement conditions every five years.

We queried Barwon Water on whether this expenditure item was recurring, and it provided further information as outlined below.

The next bulk entitlement review is required to be submitted to the Minister for Water in November 2024. Barwon Water has indicated that it requires additional expenditure during PS5 to undertake additional monitoring, investigations and modelling, to confirm the sustainable yield and ensure no impacts to the groundwater dependant ecosystems.¹⁹

Barwon Water provided details of the forecast additional expenditure required for this item, which showed \$0.23 million for the first two years of PS5, followed by \$0.35 million; \$0.45 million and \$0.46 million in the remaining three years of PS5 respectively. It suggested that, as the forecast additional expenditure is inconsistent with the amount contained in the 2021-22 baseline (\$0.3 million per year), this item should be considered as a step change.

We consider that the additional information provided by Barwon Water in relation to this item warrants its removal from the baseline and consideration as a step change. As a result, we propose to remove \$0.3 million from the baseline and have assessed this as a proposed step change (see section 0 below).

¹⁸ EY Sweeney 2022, Customer Willingness to Pay: Research Report, May, as referenced in A20892460, p.23.

¹⁹ Barwon Water 2022, PS23 Baseline Operating Expenditure adjustment – response to FTI Consulting 22 December, page 6.

Imminent safety issues at the Aqueduct – \$0.5 million

Barwon Water is obliged under the Heritage Act and local planning provisions to maintain heritage assets on an ongoing basis, including at the heritage-listed Ovoid Sewer Aqueduct in Geelong and two 1870s caretakers' cottages.

We queried Barwon Water on whether this expenditure item was recurring, and it provided further information that indicated that the majority of forecast expenditure for PS5 would be incurred in the first year, with only minor amounts forecast for the remaining four years.²⁰

Based on the information provided by Barwon Water it is not evident that these costs are recurrent. They should therefore be removed from baseline operating expenditure. However, as we recognise that Barwon Water intends to incur these costs in the PS5 regulatory period we have assessed them as a step change.

We therefore recommend an adjustment to Barwon Water's baseline operating expenditure for the \$0.5 million relating to the imminent safety issues at the Aqueduct. This is assessed as a step change in section 3.4.9 below.

0East Barwon willow tree removal – \$2.3 million

In the PS4 regulatory period, Barwon Water committed funding to implement catchment and river health initiatives for both the Moorabool River (including Living Moorabool Project) and the Barwon River (including Stage 1 East Barwon Willow Removal). These commitments align to the Victorian Government's Water for Victoria²¹ and Barwon Water states that it is strongly supported by customers.

We queried Barwon Water on whether this expenditure item was recurring, and it provided further information as outlined below.

Additional project work and ongoing management and maintenance work is required during the PS5 regulatory period along additional sections of both rivers (catchments). Barwon Water provided details of the forecast additional expenditure required for this item, which suggested additional expenditure of \$9.1 million over PS5, with more expenditure forecast in the first year (\$4.13 million) and smaller amounts each year throughout the remainder of the regulatory period. It suggested that as the forecast

²⁰ Barwon Water 2022, PS23 Baseline Operating Expenditure adjustment – response to FTI Consulting 22 December, page 6.

²¹ Victorian Government, Water for Victoria, Chapter 3.

additional expenditure is inconsistent with amount contained in the 2021-22 baseline (\$2.3 million per year) that this item should be considered as a step change.

We consider that the additional information provided by Barwon Water in relation to this item warrants its removal from the baseline and consideration as a step change. As a result, we propose to remove \$2.3 million from the baseline and have assessed this as a proposed step change (see section 0 below).

Recycled water investigations – \$0.1 million

Barwon Water incurred additional costs during the PS4 regulatory period to coordinate efforts for investigating options for additional recycled water supply. It stated that customers expressed strong support for increasing the use of recycled water during its PS5 customer engagement.²² Barwon Water aims to put a further 1,000ML of recycled water per year to productive use in the PS5 regulatory period, which will require ongoing investigations.

We consider these additional operating costs to be likely recurrent and Barwon Water has provided sufficient justification for the increase, particularly in the context of water supply and demand issues emerging in 2027 and the cessation of Barwon Downs borefield as a source.

3.3.5 Innovation and transformation delivering greater value for customers

Labour costs – \$3.7 million

Barwon Water has incurred increases in wages costs above the forecast reflected in the benchmark allowance due to changes to salary classifications of employee positions over time. This has seen annual increases higher than the wages guideline as approved by Industrial Relations Victoria, the Department of Treasury and Finance (DTF) and the former Department of Environment, Land, Water and Planning (DELWP), in accordance with government policy.

Labour costs also include an increase in FTEs that reflect additional resources required to support an increased Capital Delivery program, technology uplift and new environmental protection obligations (General Environmental Duty).

We consider that Barwon Water has provided adequate substantiation of the baseline increase attributable to labour costs and the magnitude of the costs appear reasonable. We also consider the increase in baseline operating expenditure to likely be recurrent.

²² Barwon Water 2022, Supporting Paper 3: Operating Expenditure, Barwon Water, September.

Infrastructure transformation – \$0.7 million

Barwon Water has incurred additional operating expenditure by investing in infrastructure transformation to deliver on zero emissions and zero waste objectives in line with Water for Victoria, Recycling Victoria and the Statement of Obligations issued by the Minister for Water (refer section 3.2 and Appendix A).

Barwon Water has proposed that this additional expenditure will continue in PS5 as it looks to complete work that will be used as an input into the Department of Energy, Environment and Climate Action (DEECA) work examining the role the water industry can play in enabling the circular economy and delivering on State policy objectives. Barwon Water advised that it is also responding to market requests in relation to hydrogen developments.

We consider the increase in baseline operating expenditure to likely be recurrent. We consider that Barwon Water has provided adequate substantiation of the baseline increase attributable to infrastructure transformation and the magnitude of the costs appear reasonable.

Technology uplift – \$0.4 million

Barwon Water advised that additional costs were incurred over the PS4 regulatory period to maintain information technology currency, develop platforms for future efficiencies and uplifts in customer service using data and automation and the ongoing development of key process improvement and efficiency projects. Additional expenditure was incurred for hardware and online collaborative software licences to support employees working from home.

We consider that Barwon Water has provided adequate substantiation of the baseline increase attributable to technology uplifts and the magnitude of the costs appear reasonable. We also consider the increase in baseline operating expenditure to likely be recurrent.

Business transformation – \$0.4 million

Barwon Water's PS4 determination sought to achieve significant efficiency savings across the PS4 regulatory period and established its Customer Affordability Pipeline to achieve the required efficiencies. Barwon Water established a business transformation function to lead the efficiency program and drive innovation.

Barwon Water is continuing to invest in the Customer Affordability Pipeline to realise cost savings over the PS5 regulatory period, which it estimates will achieve \$5.8 million in savings. This requires expenditure to coordinate, investigate and test opportunities.

We consider that Barwon Water has provided adequate substantiation of the baseline increase attributable to business transformation (internal efficiencies) and the magnitude of the costs appear reasonable. We note that Barwon Water has proposed a 1.95 per cent efficiency growth rate and is placed seventh of the 13 urban water companies in terms of net growth in operating expenditure. We also consider the increase in baseline operating expenditure to likely be recurrent.

LEAD 2030 program – \$0.2 million

Barwon Water has incurred additional expenditure during the PS4 period on developing its People Strategy, which includes key programs supporting cultural change. This LEAD program aims to build leadership capability and has proved an important part of retaining key staff and developing a high-performance workforce and culture.

The PS4 operating expenditure associated with the LEAD 2030 program was not included in its PS4 submission. Barwon Water plans to continue with this program in PS5.

We consider that Barwon Water has provided adequate substantiation of the baseline increase attributable to its LEAD Program and the magnitude of the costs appear reasonable. We also consider the increase in baseline operating expenditure to likely be recurrent.

3.3.6 Other expenditure - \$4.7 million

Government mandated labour cost changes -\$0.5 million

Barwon Water has explained these labour cost changes relate to:

- Increases in leave provisions reflecting Department of Treasury and Finance recommended requirements (\$0.26 million)
- Increases in the Superannuation Guarantee Charge rate (\$0.17 million)
- implementation of the new Public Entity Executive Remuneration Policy (PEER) executive classification framework for public entities (\$0.071 million).

We consider that Barwon Water has provided adequate substantiation of the baseline increase attributable to government mandated changes in labour costs and the magnitude of the costs appear reasonable and will likely be recurrent.

Insurance and legal settlement costs – \$1 million

Barwon Water procures its insurance as part of the VicWater shared procurement. Insurance premiums have increased significantly since 2021-22 in accordance with market insurance increases. This has been experienced across the sector (refer section 1.2).

The increase in baseline operating expenditure for insurance includes an additional \$0.6 million in insurance premiums, \$0.2 million in claims/settlements and ex-gratia payments for customers experiencing sewer inundations below the insurance claim deductible limit of \$0.2 million. Barwon Water did not make an allowance for this its PS4 submission.

We consider that Barwon Water has provided adequate substantiation of the baseline increase attributable to insurance costs and we expect that this increase in costs is likely to be recurrent.

After-hours contact centre service – \$0.4 million

Barwon Water’s after-hours contract service provider increased its charges significantly for 2020-21. Following extensive market analysis, Barwon Water decided to seek these services from Barwon Asset Solutions from 2020-21 onwards. The shift to Barwon Asset Solutions has resulted in higher costs but has also led to significant customer KPI improvements.

We consider that Barwon Water has provided adequate substantiation of the baseline increase attributable to its after-hours contact centre and we expect that this increase in costs is likely to be recurrent.

Other – \$2.8 million

Barwon Water has incurred an additional \$2.8 million of expenditure in its baseline operating expenditure which it attributes to numerous small items across the business as explained in Table 3.3.²³ Together these costs account for 18 per cent of the increase in 2021-22 baseline operating expenditure against the approved benchmark allowance.

Table 3.3: Barwon Water explanation of other baseline operating expenditure items

Other items	Explanation
Increase in master planning costs	In the PS4 regulatory period, Barwon Water forecast a 1.6 per cent growth rate but saw much higher growth rates of 3 per cent in 2020-21 and 2.2 per cent in 2021-22. As a result, future sewerage and water system planning required additional external resources to assist with concept sewer, water and recycled water modelling, driven by higher than anticipated levels of growth within the region. Barwon Water is forecasting growth of 2.1 per cent over the PS5 regulatory period. The costs of master planning in response to these growth rates will continue.

²³ Barwon Water 2023, Response to FTI Consulting RFI re Barwon Water PS23 Operating Expenditure - Response No 3, 17 January.

Increase in Water Reclamation Plant maintenance costs	<p>Water Reclamation Plant external contractor costs have exceeded the PS4 regulatory period benchmark allowance with some sites requiring additional operational and maintenance work due to ageing infrastructure. In addition, extreme dry conditions followed by extreme wet conditions have exacerbated these problems.</p> <p>Barwon Water advised that there is an ongoing need to respond to the fluctuations in weather events and anticipates ongoing maintenance work will be required to ensure its water reclamation plants meet operational requirements.</p>
Increase in reactive maintenance costs across the network	<p>The level of reactive maintenance work across Barwon Water’s network has increased largely due to fluctuations in extreme weather conditions, with instances of extreme dry conditions followed by extreme wet conditions adding pressure to the system. This is expected to be ongoing. Barwon Water now has a separate activity cost code outside of its general reactive maintenance cost code to capture major reactive repair work expenditure, which is occurring more frequently.</p>
Increase in Class A recycled water treatment and distribution costs	<p>Class A Recycled water treatment and distribution costs were higher than originally forecast in the PS4 regulatory period. Due to dry weather conditions and significant growth at Armstrong Creek & North Torquay, the Class A treatment plant was switched on earlier than anticipated and as a result additional (or new) costs have been incurred and will remain ongoing from 2020-21 onwards.</p>
Increase in public safety risk assessments	<p>A new and on-going program was introduced in the PS4 regulatory period to assess public safety, through risk assessments and the development of an annual action plan for all its operational sites that the public can access. This program focuses specifically on public liability risk, which can lead to serious injury of members of our community. The program assesses annually the risk of trees and limbs falling, the level and relevance of public signage and public access to assets that could result in injury or harm to community members. External consultants are utilised to perform the annual assessment and develop the action plan.</p>
Increase in traineeship program costs	<p>Barwon’s Water’s traineeship program was introduced to provide valuable access as an early career pathway for targeted communities. The program plays an important role in supporting diversity across cultural and socio-economic demographics. It has also increased women employees into traditionally male dominated roles, specifically in operations and construction.</p> <p>The trainee program is essential to provide Barwon Water with skilled resources to support operational needs. Recently four Barwon Water trainees were nominated for the Apprenticeship Employment Network</p>

Awards. One trainee was nominated for and won both the Inspiration Award: Indigenous Student of the Year and the Trainee of the Year award.

In combination, the above items make a material contribution to Barwon Water's increased baseline expenditure. Given this, we requested Barwon Water provide additional information on these items²⁴. Barwon Water provided additional detail that outlined further details regarding the nature of expenditure, its quantum and need to continue into PS5. We have assessed this further information and are of the view 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.

3.3.7 Summary of our baseline assessment

After adjusting for non-recurring items, Barwon Water's adjusted controllable operating expenditure in 2021-22 was \$115.04 million, compared to the \$98.65 million benchmark allowance approved by the Commission. This is \$16.4 million (or 16.6 per cent) more than the benchmark allowance approved by the Commission in the last price review.

We have assessed the drivers of the increase in Barwon Water's actual expenditure, and we propose four adjustments for cost drivers that have not been clearly substantiated. It is therefore not clear to us that these costs are prudent and efficient. These are:

- \$0.4 million for Melbourne to Geelong pipeline
- \$0.3 million for additional monitoring at Anglesea borefield
- \$0.5 million for imminent safety issues at the Aqueduct
- \$2.3 million for the East Barwon willow tree removal.

This will reduce the adjusted baseline controllable operating expenditure by \$3.5 million to \$111.54 million.

We recommended three of the above items for removal because they are not considered recurrent. However, we have assessed them as a step change. These items are:

- additional monitoring at the Anglesea Borefield
- imminent safety issues at the Aqueduct
- East Barwon willow tree removal.

These are considered in Section 0 below.

²⁴ Barwon Water 2023, RFI response to FTI – 01 February 2023, pages 7-9 & 18-22, 1 February.

3.4 Assessment of the step changes

Barwon Water has proposed step changes to the baseline of \$15.2 million over the PS5 regulatory period as outlined in Table 3.4 below. This includes:

Table 3.4: Barwon Water’s proposed step change (\$ 1 January 2023, millions)

Key step changes	Value \$ millions	Explanation
Implementation of Barham Catchment priority actions	1.6	Contractor costs associated with implementing catchment and environmental actions to protect and improve water quality for Apollo Bay. This will cover minor maintenance and waterway health works.
Contribution to readiness investigations for future major water supply	1.9	Preparation to access a share of Melbourne’s next major water supply augmentation, along with other augmentation options for Barwon Water’s smaller systems in Lorne and Apollo Bay. This is planned for the second half of the upcoming regulatory period.
Smart networks	3.1	Investment in digital metering, including development of a digital platform, and paying annual gateway fees and data management costs.
Cyber security uplift	5.3	Initiatives to improve cyber security controls including improving cyber awareness and the ability to respond to a cyber-security event with minimal business interruption (thereby avoiding a potentially significant economic cost to our customers).
Upper Barwon River Health initiatives (CCMA Living Barwon initiatives)	0.9	Based on an agreement to implement river health initiatives under a shared arrangement with Corangamite Catchment Management Authority (CCMA).
Stretch RAP – including strengthening relationship with Eastern Maar	0.7	Stretch Reconciliation Action Plan and a joint project between Eastern Maar, Barwon Water, Wannon Water, and Grampians Wimmera Mallee Water, will incur an additional \$0.7 million operating expenditure over five years. Based on strong community support.
Prepare and implement decommissioning plan for Barwon Downs	0.8	Expenditure in 2026-27 to decommission the Barwon Downs borefield (such as removing disused infrastructure) necessary to return the site to a safe condition. The expenditure is a one-off occurrence; it will therefore be removed from baseline expenditure for the PS6 regulatory period.
Increase to hardship program	0.8	Provide hardship assistance to customers. This includes early intervention initiatives and working with customers directly to assist with any hardship the customer may be facing.

(direct customer support payments).	
Total	15.2

Source: Barwon Water, 2023-28 Price Submission and associated Financial Model, 30 September 2022.

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
- recategorisation of expenditure between capital and operating expenditure, where the business can demonstrate that it is necessary or appropriate to do so
- incremental operating expenditure associated with a new prudent and efficient capital project
- sufficiently material that the costs are not able to be met by an efficient business operating within its approved budget (including the growth allowance) or be otherwise mitigated.

Where opex items were reported as being endorsed and supported by customers, we have adopted a consistent approach across businesses who have indicated that they have tested their customers willingness to pay for various projects having regard to the following criteria

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

We were generally satisfied that Barwon's customer outreach campaigns (Customer Advisory Committee) met these criteria.²⁵

²⁵ Documentation provided by Barwon Water to FTI Consulting in October 2022:

02.2 CAC discussion report - 22 June 2022

02.1 Presentation - CAC 22 Jun 2022

Some elements of the step change in controllable operating expenditure over the PS5 regulatory period are justified in terms of linking them to customer outcomes that deliver on customer demands based on Barwon Water's engagement efforts. For example, Implementation of Barham Catchment priority actions (\$1.6 million over five years) involved an options analysis process which included cost-benefit analysis (using the Investment Framework for Environmental Resources (INFFER)) to inform priority actions contained within the Barham Drinking Water Catchment - Improvement Plan. The FTI team were satisfied that the following items were justified:

- Implementation of Barham Catchment priority actions.
- Upper Barwon River Health initiatives (CCMA Living Barwon initiatives).
- Stretch RAP – including strengthening relationship with Eastern Maar.
- Prepare and implement decommissioning plan for Barwon Downs.
- Increase to hardship program (direct customer support payments).

Aspects of the step change that we sought further clarity on included:

- Contribution to readiness investigations for future major water supply (\$1.9 million)
- Smart networks (\$3.1 million)
- Cyber security uplift (\$5.3 million).

Barwon Water subsequently provided further detail on three elements of the step change: Contribution to readiness investigations for future major water supply (\$1.9 million), Smart networks (\$3.1 million) and Cyber security uplift (\$5.3 million).²⁶

3.4.1 Implementation of Barham Catchment priority actions (\$1.6 million)

This expenditure is for the contractor costs associated with implementing actions to improve catchment and waterway health and protect and improve water quality for Apollo Bay. It has been developed in accordance with the regulatory obligations of the Safe Drinking Water Act and Regulations, and the framework set out in the Australian Drinking Water Guidelines (ADWG). Health-based targets (HBTs) have recently been introduced in the ADWG and provide the basis for assessing the level of treatment required to manage source water microbial risks.

01.2 CAC Summary meeting minutes - Dec 2021

01.1 Background information - CAC meeting 13 December 2021

00.3 Supporting Paper 3 - Operating Expenditure.

²⁶ Barwon Water 2022, 14 November.

Barwon Water provided supporting information that outlined the process it undertook to develop its forecast expenditure, including the options it assessed and the costs and benefits of each.

The information provided by Barwon Water sufficiently demonstrates that it aims to achieve compliance with regulatory obligations. We have assessed this proposed step change as prudent and efficient, meeting the criterion to comply with new, or changed, legislative or regulatory obligations.

3.4.2 Contribution to readiness investigations for future major water supply (\$1.9 million)

Barwon Water submitted that the Victorian Government's 2022 Central and Gippsland Region Sustainable Water Strategy requires water corporations to adopt an early readiness approach for regionally significant water security projects that will need to occur over the next five years. This includes:

- Investigating options to expand the region's desalination capacity
- Adopting the readiness approach for urban water security planning
- Ongoing adaptive planning activities for future water supply options.

Barwon Water is proposing \$1.9 million in additional operating expenditure over the PS5 regulatory period (predominantly over the last three years) for preparations around accessing a share of Melbourne's next major water supply augmentation.

Barwon Water's submission did not substantiate the costing of this readiness investigation and we sought further clarity. In response, Barwon Water provided further detail on this expenditure item, including the details of how the costs were calculated.²⁷ Barwon Water developed its estimate of the \$1.9 million attributable to this work as being equivalent to 3 per cent of the total estimated \$60 million that would be expected to be incurred in early readiness costs across all augmentation partners. The \$60 million is based on a high-level estimate of the types of costs typically incurred by large augmentation projects and is calculated by applying a percentage to an estimate of what a large augmentation cost may be.

We suggested to Barwon Water that we were unable to assess the prudence and efficiency of this expenditure item, as the way the estimates were developed was based on a series of high-level assumptions. Barwon Water acknowledged there is uncertainty as to precise timing and cost, however, it maintains that it will incur significant expenditure related to this work in the 2023-28 regulatory period. It proposed that expenditure for this item be

²⁷ Barwon Water 2022, 04.1.0 RFI from FTI – Opex, 9 November.

capitalised for regulatory purposes after it had been incurred, as part of the PS6 price review.²⁸ Accordingly we have removed this proposed step change from Barwon Water's forecast controllable operating expenditure for this regulatory period.

Updated step change proposal

Barwon Water provided further information in relation to this item that suggested that an additional full-time resource would be employed to lead the work on developing options for future major water supply options. It estimates that this cost would be \$0.17 million per annum and begin in 2023-24.

We have reviewed the rationale and cost estimates associated with this step change (\$0.17 million) and are satisfied that it is prudent and appropriate, and meets the criteria outlined above (section 3.1) specifically that it is sufficiently material that the costs are not able to be met by an efficient business operating within its approved budget (including the growth allowance) or be otherwise mitigated.

3.4.3 Smart networks (\$3.1 million)

Barwon Water have said that customers are indicating that they want more insight and control over their water use and for Barwon Water to be able to fix leaks earlier to save water and avoid more serious issues emerging. It explained that smart networks aim to achieve this outcome, including using existing data better, and collecting new data to identify and fix leaks quickly, or prevent issues ahead of time through proactive not reactive maintenance. The smart networks program has been informed by pilot projects and small-scale digital metering trials, proof of concept trials and business cases for water and sewer networks.²⁹

Detailed costings have been provided by Barwon Water. Based on our criteria above, we are satisfied that this expenditure meets the criteria of achieving an initiative that is endorsed by customers, as well as being incremental operating expenditure that relates to a new prudent and efficient capital project.

3.4.4 Cyber security (\$5.3 million)

Cybersecurity is included in Barwon Water's current digital strategy, which outlines the importance of addressing cyber security risks and the significant impacts that this can have on Barwon Water, its customers and the wider community. As outlined in section 3.2 (and Appendix A), this has emerged as an issue of key importance for all water businesses.

²⁸ Barwon Water 2023, Response to FTI Consulting's Draft 'Barwon Water: Review of expenditure forecasts' Report, 14 February, pages 5-6.

²⁹ Itemised in Barwon Water Supporting Paper 3 – Operating Expenditure, page 19.

Barwon Water provided a breakdown of the proposed \$5.3 million expenditure, which included:³⁰

- Enhanced segmentation between its critical plant networks and corporate network - Network segmentation - \$0.9 million
- Increase in controls, equivalent to Essential 8 – Maturity Level 2 - \$0.4 million
- Establish managed security detection and automated response and recovery - \$1.1 million
- Uplift Identity and Access and Configuration Management tools \$1.1 million
- Improve information classification and protection controls - \$0.6 million
- Additional smaller initiatives.

Barwon Water's ICT operating expenditure per water connections fall within the average across companies (see Appendix A) in terms of forecast. Our analysis shows that Barwon Water's proposed total IT expenditure per connection for the PS5 regulatory period is the seventh highest across all water businesses. However, its total IT expenditure as a percentage of total controllable operating expenditure in the PS5 regulatory period is above the average of all the businesses.

Caution should be exercised in drawing conclusions from these comparisons as the need for IT expenditure in the PS5 regulatory period will depend on the level of maturity of each business's IT infrastructure. We have therefore only referred to this information for context. It has not directly informed our assessment of this proposed step change.

Overall, we are satisfied that Barwon Water has provided adequate substantiation of its cybersecurity step change for the PS5 regulatory period, which is supported by an overarching digital strategy and detailed program of work.

We are of the view that this proposed step change meets our criteria, including complying with new or increased regulatory obligations. Given the increasing expectations of customers and the community around the protection of data, we also consider that it meets the second criterion (i.e. achieving an outcome or implementing an initiative that is endorsed by customers or broadly meets accepted changes in community expectations).

³⁰ Barwon Water Supporting Paper 3 – Operating Expenditure, page 20.

3.4.5 Upper Barwon River Health initiatives - CCMA Living Barwon initiatives (\$0.9 million)

As part of the 2018-23 pricing period, Barwon Water committed funding to implement river health initiatives under a shared arrangement with Corangamite Catchment Management Authority to support the Living Moorabool Project, which directly relates to a commitment within the Victorian Government's Water for Victoria, Chapter 3.

Barwon Water has allocated \$0.9 million of additional expenditure over five years to help improve catchment and waterway health of the Upper Barwon River and its tributaries, which is the main source of drinking water for the greater Geelong region. It expects these initiatives to continue into PS6 in line with community expectations and to align with the Corangamite Catchment Management Authority's Upper Barwon Flagship Project and obligations under the Safe Drinking Water Act and Regulations, and the Australian Drinking Water Guidelines (ADWG).

Through Barwon Water's engagement with customers and the community for its Urban Water Strategy and 2023 Price Submission, the feedback supported investment in catchment and waterway health, particularly for the Upper Barwon River.³¹

We consider such expenditures to be appropriate given community support and the need to meet regulatory requirements under the Safe Drinking Water Act and Regulations, and ADWG. Based on our criteria above in section 3.1, we are satisfied that such expenditures meet the criteria of achieving compliance with regulatory obligations and are unlikely to be mitigated or absorbed by an efficient business operating within its approved budget.

3.4.6 Stretch RAP – including strengthening relationship with Eastern Maar (\$0.7 million)

The Barwon region includes two registered Aboriginal parties, the Wadawurrung Traditional Owners Aboriginal Corporation and the Eastern Maar Aboriginal Corporation.

In PS5, Barwon Water is delivering on a Stretch RAP, which will focus on longer-term strategies, and work towards defined measurable targets and goals. Barwon Water will continue to embed reconciliation initiatives (developed during the implementation of the Innovate RAP) into business strategies so they become 'business as usual'.

The information provided by Barwon Water regarding this step change clearly outlines the reasons for undertaking this initiative and articulates the way the forecast costs have been developed. As a result, we are of the view that this proposed step change meets the criteria

³¹ FTI RFI re Barwon Water PS23 Operating Expenditure - BW Response 13 December 2022.

outlined above (section 3.1), specifically that it is sufficiently material that the costs are not able to be met by an efficient business operating within its approved budget (including the growth allowance) or be otherwise mitigated.

3.4.7 Prepare and implement decommissioning plan for Barwon Downs (\$0.8 million)

Barwon Water is currently implementing a remediation and environmental protection plan for Boundary Creek, Big Swamp and surrounding environment supported by the Victorian Government and legally enforceable through Section 78 of the Water Act 1989.

Under bore licencing requirements, any bores that are no longer needed are required to be decommissioned. A decommissioning plan will need to be developed and submitted to Southern Rural Water for approval in accordance with bore licencing requirements.

The forecast expenditure of \$0.8 million has been allocated for 2026-27 and is considered a one-off occurrence and will therefore be removed from the baseline expenditure for the next price submission. The cost estimate includes the preparation of a decommissioning plan, submission of an application for a licence to decommission a bore(s) to Southern Rural Water and decommissioning of the Barwon Downs extraction bores by a suitably qualified driller.

Decommissioning costs are treated as operating expenditure unless the asset is being replaced with 'like for like', with the new asset being constructed in exactly the same location. In the case of the Barwon Downs borefield, disused infrastructure is to be removed and the site returned to a safe condition, therefore the costs are being treated as operating expenditure.

Based on our criteria above in section 3.1, we are satisfied that such expenditures meet the criteria of achieving compliance with regulatory obligations (bore licencing requirements) and are unlikely to be mitigated or absorbed by an efficient business operating within its approved budget.

3.4.8 Increase to hardship program - direct customer support payments (\$0.8 million)

This step change item aims to provide hardship assistance to the customers that need it most. This includes early intervention initiatives and working with customers directly to assist with any hardship the customer may be facing. The hardship program will increase by \$0.8 million to a total of \$3 million over the PS5 regulatory period.

Key initiatives include:

- establishing a Customer Care Team
- introducing data analytics & strategic partnerships functions
- providing refresher training on specialist issues (e.g. family violence).

It also includes allocated expenditure for customer support (such as expanding the Arrange & Save Program; formalising discretionary support; and refreshing business rules and processes).

Based on our criteria above in section 3.1, we are satisfied that such expenditures meet the criteria of achieving an outcome that would be endorsed by customers and meets community expectations.

3.4.9 Assessment of items removed from the base line as step change items

As outlined above in section 3.3, we propose to remove the following items from the baseline and consider them as step changes:

- Additional monitoring at Anglesea borefield \$0.23 million (2025-26 to 2027-28)
- Imminent safety issues at the Aqueduct \$0.49 million
- East Barwon willow tree removal \$2.3 million.

Additional monitoring at Anglesea borefield (\$1.72 million)

As outlined in section 3.3.1 above, Barwon Water has recommissioned the Anglesea borefield as it is no longer able to access to Barwon Downs borefield. It anticipates that the Anglesea borefield will now be used more frequently as a water source as Barwon Water approaches the point at which demand is expected to outstrip supply. Barwon Water's use of the Anglesea borefield is conditional on it undertaking a review of bulk entitlement conditions every five years.

The next bulk entitlement review is required to be submitted to the Minister for Water in November 2024. Barwon Water has indicated that it requires additional expenditure during PS5 to undertake additional monitoring, investigations and modelling, to confirm the sustainable yield and ensure no impacts to the groundwater dependant ecosystems.³²

Barwon Water provided details of the forecast additional expenditure required for this item as outlined in Table 3.5: Barwon Water's additional monitoring at Anglesea Borefield (1 January 2023, millions) below:

³² Barwon Water 2022, PS23 Baseline Operating Expenditure adjustment – response to FTI Consulting 22 December, page 6.

Table 3.5: Barwon Water’s additional monitoring at Anglesea Borefield (1 January 2023, millions)

Step change	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Additional monitoring at Anglesea borefield	0.23	0.23	0.35	0.45	0.46	1.72

Source: Barwon Water – email to FTI Consulting 22 December 2022 - FTI RFI re Barwon Water PS23 Baseline Operating Expenditure adjustment - BW Response No. 2 - 22 December 2022.

FTI queried the need for funding after the bulk entitlement review is submitted to the Minister for Water in November 2024. Barwon Water provided additional information which outlines that costs would continue to be incurred on an updated and modernised monitoring assessment program. This is likely to include further ecological surveys, monitoring of groundwater and surface water levels, flows and quality monitoring.³³

Having reviewed the information provided by Barwon Water, we consider that this expenditure should be included in the step change as it meets the criteria of being sufficiently material that the costs are not able to be met by an efficient business operating within its approved budget (including the growth allowance) or be otherwise mitigated.

Imminent safety issues at the Aqueduct (\$2.43 million)

Barwon Water is obliged under the Heritage Act and local planning provisions to provide ongoing maintenance to heritage assets including Ovoid Sewer Aqueduct in Geelong and two 1870s caretakers’ cottages. Works in the early years of the PS5 regulatory period will improve the state of the assets, with ongoing maintenance costs towards the end of the period and moving into 2028PS period (see

³³ Barwon Water 2023, RFI response to FTI – 01 February 2023, pages 13, 1 February.

Table 3.6 below).

Table 3.6: Barwon Water’s imminent safety issues at the Aqueduct

Step change	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Aqueduct	1.80	0.02	0.02	0.02	0.02	1.88
Caretaker cottages and other heritage structures	0.35	0.05	0.05	0.05	0.05	0.55
TOTAL	2.15	0.07	0.07	0.07	0.07	2.43

Source: Barwon Water – email to FTI Consulting 22 December 2022 - FTI RFI re Barwon Water PS23 Baseline Operating Expenditure adjustment - BW Response No. 2 - 22 December 2022.

We propose to include a step change of \$2.15 million for these works to be undertaken in the first year as this item meets our criteria, specifically to comply with legislative/regulatory obligations. However, we are of the view that the remaining forecast expenditure is not sufficiently material to warrant a step change increase.

Catchment and river health initiatives (\$9.09 million)

In the 2018-23 regulatory period, Barwon Water committed funding to implement catchment and river health initiatives for both the Moorabool River (incl. Living Moorabool Project) and the Barwon River (incl. Stage 1 East Barwon Willow Removal). These commitments align to the Victorian Government’s Water for Victoria, Chapter 3, and are strongly supported by customers. This work will continue into PS5, including

- Stage 1 East Barwon River works (Barwon Water led)
- Stage 2 East Barwon River works (Barwon Water led)
- Bolwarra Weir restoration Project (Barwon Water land)
- Remediation of Boundary Creek, a tributary of the Barwon River
- Yarram Creek willow and pine removal (Barwon Water land).

This was included in the proposed baseline operating expenditure (2021/22) and Barwon Water have proposed to move it to a step change. As outlined above in section 0, we propose to remove this from the baseline and as such, we consider that it should be included in the step change as it meets the criteria of being sufficiently material that the costs are not able to be met by an efficient business operating within its approved budget (including the growth allowance) or be otherwise mitigated.

3.4.10 Summary of our step change assessment

Based on Barwon Water's PS5 submission and further information provided to us, and having regard to our step change criteria, we consider that most of its step changes are reasonable. We recommend that the contribution to readiness investigations for future major water supply (\$1.9 million) be removed from the step change.

We propose that the following forecast operating costs be added as step changes:

- Additional monitoring at Anglesea borefield - \$0.33 million
- Imminent safety issue at the Aqueduct - \$2.15 million
- Catchment and river health initiatives - \$9.09 million.

We have also considered these within the context of Barwon Water's proposed net annual growth in expenditure over the PS5 regulatory period. As outlined below, its net expenditure growth factor of 0.1 per cent per year which is high among the water businesses.

3.5 Forecast growth and efficiency factors

Barwon’s proposed growth factor averages 2.1 per cent per year, with a proposed efficiency factor of 1.95 per cent giving a net increase in operating expenditure of 0.15 per cent over PS5. Barwon Water is seventh out of 13 water businesses subject to this review (see Table 3.7).

Table 3.7: 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 controllable operating expenditure assessment

Based on Barwon Water’s PS5 submission, discussions with the business and the further information it provided, the revised adjusted controllable operating expenditure is somewhat consistent with a prudent business that operates efficiently and requires some adjustments. This reflects our view that:

- the key drivers of some of the overspend against the baseline appear reasonable
- the proposed step changes are mostly reasonable and supported by a sound rationale.

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

- a reduction in baseline 2021-22 controllable operating expenditure of \$3.90 million
- a reduction in proposed step changes by \$1.9 million
- an increase in the step change of \$13.0 million (those items removed from the baseline).

Table 3.8: Recommended adjustments – controllable operating expenditure (\$ 1 January 2023, millions)

	2023-24	2024-25	2025-26	2026-27	2027-28
Forecast controllable operating expenditure	117.44	118.21	119.15	119.52	118.65
Recommended adjustments:					
Baseline adjustments					
More expensive water sources turned on – Melbourne to Geelong Pipeline	0.40	0.40	0.40	0.40	0.40
Additional monitoring at Anglesea Borefield	0.30	0.30	0.30	0.30	0.30
Imminent safety issues at the Aqueduct	0.50	0.50	0.50	0.50	0.50
East Barwon willow tree removal	2.30	2.31	2.31	2.31	2.32
Step change adjustments					
<u>Deductions</u>					
Contribution to readiness investigations for future major water supply	0.00	0.00	0.66	0.65	0.55
<u>Additions</u>					
Additional resource for future major water supply	0.17	0.17	0.17	0.17	0.17
Additional monitoring at Anglesea borefield	0.23	0.23	0.35	0.45	0.46
Imminent safety issue at the Aqueduct	2.15				
East Barwon willow tree removal	4.13	2.02	1.10	0.92	0.92
Total recommended adjustments	(3.17)	1.09	2.56	2.64	2.52
Adjusted total operating expenditure	120.61	117.12	116.59	116.89	116.13

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).³⁴

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

Figure 4.1: Capital expenditure assessment criteria

Assessment of capital program
<ul style="list-style-type: none">• 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
<ul style="list-style-type: none">• Major capital projects and programs are clearly justified• Proposed delivery solution is reasonable

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

We have assessed Barwon Water’s forecast capital expenditure for the PS5 regulatory period focusing primarily on a review of asset management, capital planning and prioritisation processes and how they have been applied. We have also reviewed key supporting documentation for a sample of three of the top 10 capital expenditure projects, and undertaken a high level scan of the business case documentation for the remaining seven major projects. We have also undertaken a high level review of asset renewal and portfolio management plans and strategies and business cases for seven of the major capital programs and portfolios. Our assessment is based on a review of the information

³⁴ Essential Services Commission, 2023 Water Price Review: Guidance Paper, August 2022 Amendment, p.33.

contained in Barwon Water's PS5 submission and responses to additional information requests we raised based on the above criteria.

Barwon Water's PS5 submission supporting its proposed capital expenditure program was strong overall, with good context and justification provided in relation to the forecast expenditure increase and associated drivers. However, to further test the justification for the substantial increase in capital expenditure forecasts for the PS5 regulatory period compared to PS4 regulatory period forecasts, we requested additional information related to the following issues:

- the increase in capital expenditure above the benchmark allowance approved by the Commission for the PS4 regulatory period (particularly growth and improvement/compliance)
- the increased trend in forecast capital expenditure for the PS5 regulatory period (particularly renewals and improvement/compliance)
- background to the digital strategy and digital metering programs.

Barwon Water responded quickly with all requested additional information and documentation, including existing detailed documentation setting out the capital planning processes used to develop the program, relevant Board and Committee papers and reports, asset renewal and management plans and strategies as well as major project business cases.³⁵ Appendix B contains a list of documents provided by Barwon Water and reviewed as part of our assessment of its proposed capital expenditure program.

4.2 Assessment of overall capital program

Barwon Water is currently on track to deliver a higher level of capital expenditure for the PS4 regulatory period than the benchmark allowance approved by the Commission as part of the last review. This is attributable to spending on growth, additional complexities related to projects on brownfield sites, safety risk management obligations and brought forward projects related to other infrastructure works and State Government projects. Barwon Water has also forecast that this trend will continue into the PS5 regulatory period, particularly for renewals and growth drivers.

4.2.1 Link to customer outcomes and obligations

The key drivers, projects and programs appear to be well linked to and supported by relevant strategies, obligations, customer outcomes and engagement results and relate to:

- renewals (45 per cent of the total capital expenditure program)

³⁵ Barwon Water 2022, 2023 Price Submission – RFI from FTI – Capex, 27 October.

- growth (33 per cent of the total capital expenditure program)
- top 10 major projects, which appear well defined and appropriately costed (\$106.6 million)
- 17 major programs (\$233 million), including Barwon Water’s Digital Strategy (\$18.7 million)
- staged deployment of digital meters (\$8.4 million).

The supporting strategy, asset management and portfolio plan and business case documents reviewed provide strong justification for the projects and programs that underpin Barwon Water’s overall capital expenditure program and forecast. They also provide insight into how each element of the program supports Barwon Water’s four key customer outcomes:

- secure sustainable water
- innovative and reliable services
- healthier environment
- affordability, trust and value.

4.2.2 Comparison of forecast and actual capital expenditure – PS4

Barwon Water’s actual capital expenditure (including 2022-23 forecast) for the PS4 regulatory period is expected to be \$426.8 million. This is approximately \$58 million (or 16 per cent) more than the benchmark allowance approved by the Commission in the last price review. In summary, the major areas of increased expenditure relate to:

- threats to water security (\$3.1 million increase) – comprising brought forward expenditure on the Lovely Banks to Montpellier Pump Station due to greater reliance on the Melbourne to Geelong Pipeline given loss of access to the Barwon Downs borefield
- Addressing safety risk management obligations and community and environmental health requirements (\$25.8 million)
- addressing aging infrastructure risks, brought forward works to address higher than forecast growth and managing additional complexities realised on brownfield sites (\$40.7 million)
- IT system capability uplift (\$3.2 million).

These drivers were partially offset by \$30.6 million in savings across the capital program arising from delivery efficiencies and optimisation and risk-based reprioritisation.

Delivery performance for the top 10 major capital projects in the PS4 regulatory period (\$61.3 million) has been reasonable overall. Three of the top 10 projects have been

completed, four are in progress (including one which is on track to be completed in June 2023, and three which are expected to carry over into the PS5 regulatory period) and three projects have been deferred (two into the PS5 regulatory period and one into the PS6 regulatory period).

The documents and information provided by Barwon Water provide good support and reasonable explanations for the increased capital expenditure in the PS4 regulatory period.

4.2.3 Forecast capital expenditure – PS5

Barwon Water's forecast capital expenditure for the PS5 regulatory period is \$549.4 million. This is:

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

Barwon Water's forecast capital expenditure is projected to continue to increase into the PS6 regulatory period because of a significant forecast increase in growth expenditure of around 145 per cent compared to the PS5 regulatory period forecast. Renewals expenditure is expected to reduce by around 12 per cent in the PS6 regulatory period compared to PS5 levels, with compliance/improvement expenditure expected to remain stable.

Barwon Water has excluded approximately \$112 million of planned capital expenditure from the PS5 regulatory period forecast for strategic and innovative projects under its 'customer pays later' program. This includes projects that Barwon Water intends to pursue in the PS5 regulatory period, but which are still being developed (and hence are subject to timing and other uncertainties) or are expected to generate their own revenue. Barwon Water has also excluded \$50 million of capital expenditure from its PS5 regulatory period forecast based on the results of a risk-based prioritisation assessment process. This includes reductions in project scope or project deferral beyond the PS5 regulatory period. Barwon Water is taking on the risk of continuing to meet required service levels by optimising existing system operations.

Based on the information included in Barwon Water's PS5 submission and the further information it has provided, we consider that the forecast increased expenditure in the PS5 regulatory period is justified and supported by good documentation, strategies, processes and business cases and asset management plans.

4.2.4 Underlying processes for developing the program

Barwon Water's PS5 submission outlines its underlying asset management and capital planning processes (including risk assessment and prioritisation processes). The additional documentation and papers provided to us during this review as referred to above appear to be robust and appropriate. The business cases and asset management plans reviewed provided good evidence demonstrating that the associated frameworks and processes have been applied in a rigorous manner to develop the PS5 capital expenditure program, with significant executive team and Board oversight.

We reviewed Barwon Water's asset management renewal plans and strategies and major project business cases, which are detailed and well prepared, and provide a high level of confidence that the associated capital expenditures proposed are justified, prudent and appropriate.

The proposed programs, projects and associated expenditures are well linked to risk based assessments of needs. The prioritisation process used by Barwon Water across its overall capital program appropriately balances risk sharing between Barwon Water and its customers and between different expenditure drivers and appears to have been applied in a rigorous manner to refine the final proposed program. As noted above, this process has identified approximately \$162 million of capital expenditure that has been deferred to subsequent periods.

4.2.5 Reliability of cost estimation

Barwon Water's approach to estimating its capital project and program costs is sound and appropriate. It has used risk-based cost estimation methodologies to develop P50 cost estimates for all projects greater than \$3 million (covering 25 per cent of the overall program). For smaller discrete projects and other program expenditures, it has developed cost estimates based on costing templates that reflect appropriate historical costs and unit rates and include minimal contingency allowances.

The costings adopted exclude uncertain cost escalation and project/program contingencies over the PS5 regulatory period, and hence Barwon Water is bearing this risk rather than passing this on to customers.

Barwon Water's cost estimation approach provides a robust and appropriate basis for developing the budget estimates for its PS5 capital expenditure program.

4.2.6 Deliverability of capital program

As outlined in its PS5 submission, and supported by further information provided, Barwon Water is implementing strategies aimed at addressing its capacity to deliver its larger PS5

regulatory period capital program, including considering both organisational and market capacities.

Barwon Water has previously demonstrated its capacity to deliver large capital programs and appears to be making good progress delivering its forecast \$117.1 million program in 2022-23.

Barwon Water has further enhanced delivery arrangements and governance processes. It has already implemented the following initiatives:

- establishing an Enterprise Portfolio Management Office, which operates at a strategic level to ensure projects and portfolio activities benefit the overall business
- establishing a Project Enablement Team to work with relevant groups within Barwon Water to facilitate project risk, opportunity, innovation, Traditional Owner, carbon smart, and cost estimation assessments at key stages of the project lifecycle
- appointing engineering consultants (CMP Consulting and sub-consultant SMEC) as the Technical Services Design Partner for the Network and Schemes delivery program.

Barwon Water is also progressing the following initiatives:

- better tailoring internal resourcing arrangements and systems to the program to be delivered
- appointing a digital delivery partner to support implementation of digital programs and initiatives
- undertaking a market sounding exercise with local contractors as well as the Melbourne pool of contractors.

These initiatives are further supported by a capital delivery model developed specifically for the PS5 regulatory period to align capital projects and programs to one of six specific delivery programs.

We sought further information from Barwon Water to confirm the extent to which improved delivery capacity arrangements are already in place and ready for the PS5 regulatory period. In response, Barwon Water advised that:

- indications from the market sounding exercise are positive, with the market showing a strong interest and capacity for delivering Barwon Water's program of capital works

- successful recruitment of additional project managers into the project delivery department is now complete, with all targeted positions filled
- an expression of interest process for a digital partner is now in progress
- a quarterly process of capital expenditure reviews to support delivery of the uplift in the PS5 program has been implemented.

Overall, we consider that Barwon Water has made good progress towards implementing delivery program enhancement initiatives, with ongoing Board and executive focus. This provides a good level of confidence that robust arrangements will be ready and in place to support implementation of the proposed program.

4.3 Assessment of major projects and major programs

4.3.1 Major projects

Barwon Water's PS5 capital program includes 10 major projects with a combined forecast cost of \$106.6 million (approximately 19.5 per cent of the total program) over the PS5 regulatory period. These projects are well outlined in Barwon Water's PS5 submission and appear to be well defined and scoped, with clear justified drivers and linkage to strategies, customer outcomes and engagement.

We reviewed a sample business case and related supporting and background documentation for the following three major projects:

- Colac Birregurra pipeline (\$10.1 million)
- Recycled water on the Bellarine (Stage 3) (\$13.6 million)
- Pettavel Basin augmentation (\$17.5 million).

The sample business cases and supporting documentation reviewed are very detailed, well focused and provide strong justification for the major projects and associated expenditures. The forecast capital expenditure on these projects appears to be appropriately targeted based on sound risk assessment approaches. However, our review of the growth driven Pettavel Basin augmentation project identified that there may be some potential to revise the forecast phasing of expenditure in 2027-28 (the final year in the PS5 regulatory period) due to uncertainty in timing of the forecast growth. A high-level review of other growth driven major projects also identified potential to revise the forecast phasing of expenditure in 2027-28 for the Bannockburn South Pump Station and Rising Main project and the Indented Head St Leonards Feeder Main Stage 3 project. However, on balance given the uncertainties involved and that Barwon Water has already identified \$50 million of capital expenditure for deferral beyond the PS5 regulatory period, we do not recommend any changes to the forecast phasing for these projects.

In summary, our review of Barwon Water's major projects has confirmed that they are:

- appropriate in relation to key drivers and obligations
- linked strongly to customer service needs and demonstrated customer preferences
- supported by robust analysis and assessment
- costed appropriately.

This provides a high level of confidence that the major projects and the associated expenditure forecasts are prudent and efficient.

4.3.2 Major programs

Beyond the top 10 major projects, the rest of Barwon Water's capital program comprises 17 defined major programs (\$233 million in total – 42.4 per cent of the overall program), with the remaining expenditure (approximately \$210 million – 38 per cent of the overall program) comprising multiple smaller programs and projects.

We reviewed asset renewal plans, strategies and related supporting and background documentation (provided by Barwon Water) for the following sample of the major programs:

- mains replacement and rehabilitation (sewerage) (\$53.7 million)
- water mains replacements (\$19.8 million)
- digital strategy (\$18.7 million)
- North West Geelong Growth Area Assets (Sewer) (\$14.6 million)
- North West Geelong Growth Area Assets (Water) (\$13.8 million)
- North West Geelong Growth Area Assets (Recycled Water) (\$13.5 million)
- sewer rising mains renewals portfolio (\$13.3 million).

The sample program asset renewal plans, strategies and business cases and supporting documentation sighted are detailed, well focused and provide strong justification for the proposed program objectives and associated expenditures. The proposed expenditure forecasts for each of these programs appear to be well prioritised and appropriately targeted based on assessed levels of asset and service risk. Our review of these documents indicates that these programs have been developed based on strong, detailed analysis and assessment of needs and benefits and that they are:

- appropriate in relation to key drivers and obligations
- linked strongly to customer service needs and demonstrated customer preferences

- supported by robust analysis and assessment, including the application of appropriate risk-based assessment and prioritisation
- costed appropriately.

Noting Barwon Water’s proposed approach to staging the pilot testing and implementation of a digital meter rollout program over the PS5, PS6 and into the PS7 regulatory periods, we also reviewed Barwon Water’s supporting Smart Networks Water business case. Barwon Water’s digital meter program proposes to extend the pilot installation of 300 vibration sensor enhanced digital meters (in the Marengo area near Apollo Bay – system online in August 2022) through a targeted rollout of digital meters in Apollo Bay, Lorne and identified high leakage ‘hot spots’ in Geelong.

This will involve Barwon Water installing around 27,000 digital meters in these areas at a forecast expenditure of \$8.4 million over the PS5 regulatory period. This installation is also supported by the broader Smart Networks Water program and the digital strategy program which will be used to extend the digital meter pilot to provide proof of value prior to progressing a further staged full rollout to all service areas from the PS6 regulatory period. In addition to the Barwon Water funded program for Apollo Bay, Lorne and targeted areas of Geelong, developers will fund installation of a further 12,500 digital meters as part of new developments.

Based on this approach and the associated documentation and supporting information reviewed, Barwon Water’s staged approach to rolling out digital meters is well targeted and appropriate for its service areas.

4.4 Summary of capital expenditure assessment

Overall, Barwon Water’s PS5 capital expenditure forecasts are well developed and together with the additional information reviewed provide a high level of confidence that the proposed capital expenditure program is appropriate, prudent and robust, and deliverable within the PS5 regulatory period.

We considered whether adjustments were justified to the phasing of forecast capital expenditure in 2027-28 (the fifth and final year in the PS5 regulatory period) to account for potential uncertainty in the timing of growth driving the project needs for:

- the Pettavel Basin Augmentation Stage 2 project (50 ML Basin) project (up to \$13.3 million in 2027-28)
- the Bannockburn South Pump Station and Rising Main project (up to \$5 million in 2027-28)

- the Indented Head St Leonards Feeder Main Stage 3 project (up to \$3.4 million in 2027-28).

However, we do not recommend any adjustments to Barwon Water's forecast capital expenditure for the PS5 regulatory period given that:

- any associated deferral of these projects would only push some expenditure from the final year of the PS5 regulatory period into the first or second year of the PS6 regulatory period, which would not materially impact customer prices
- any delay in the timing of growth driving these projects would most likely be offset by the need to bring forward other growth driven projects due to accelerated growth in other areas.

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 DELWP (now DEECA). 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.³⁶

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.

³⁶ 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.

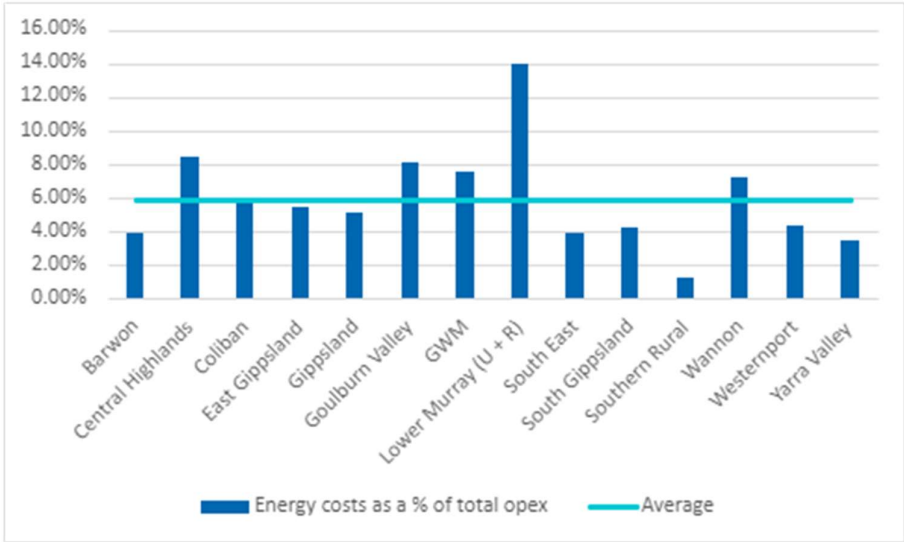
The most appropriate strategy depends on the needs and circumstances of the business, including the feasibility (and cost) of direct action measures such as solar PV.

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.

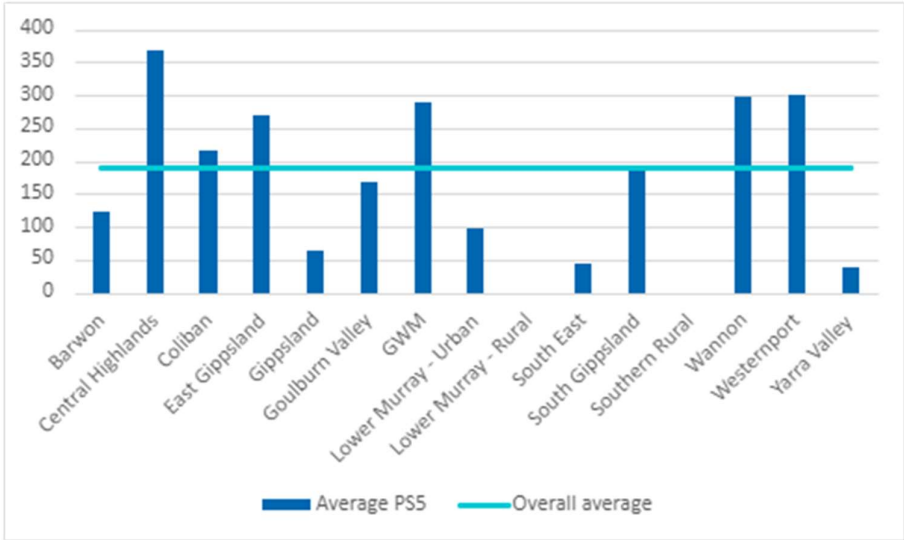
Figure A1: PS5 forecast total energy expenditure as a percentage of total controllable operating expenditure (%)



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)

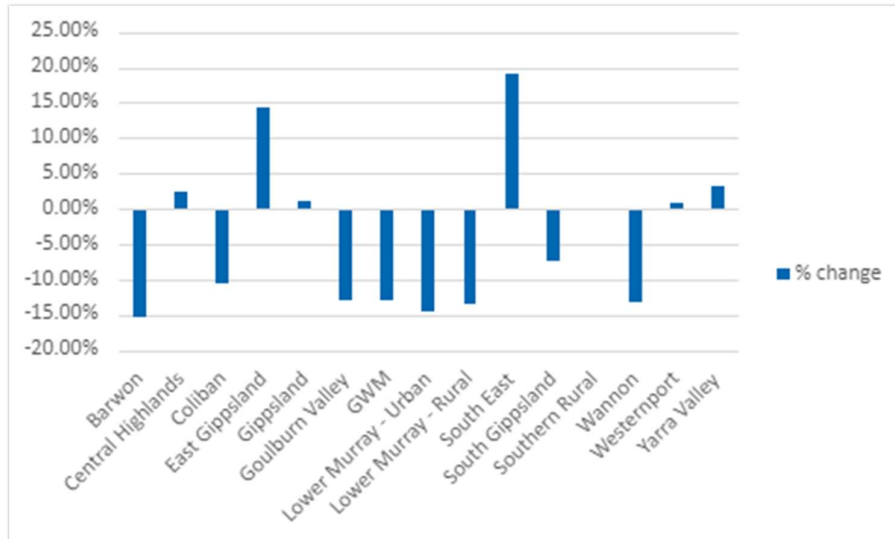


Source: Victorian water businesses, 2023 Price Review Models.

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 expenditure³⁷ and proposed PS5 energy expenditure for each business.

³⁷ 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 2024.³⁸

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

³⁸ <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 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.³⁹

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

Other IT-related expenditure

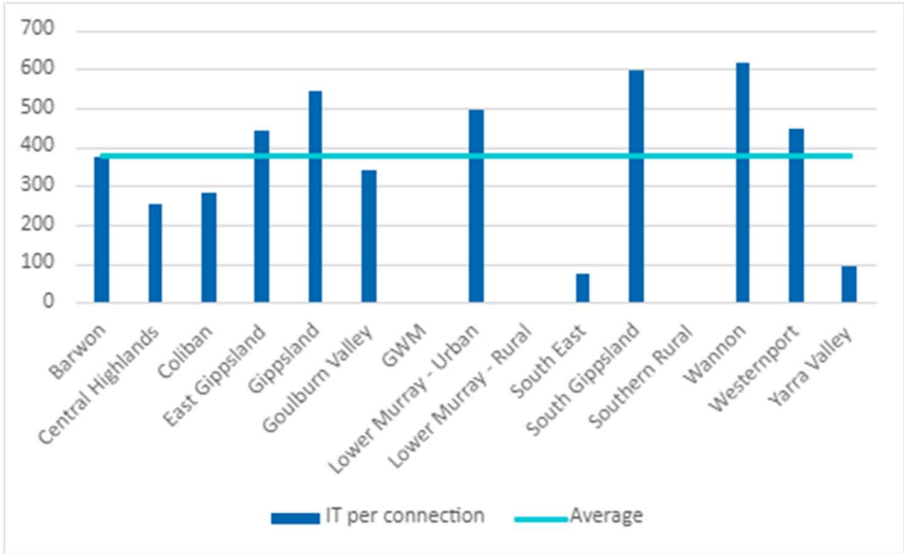
Depending on the functionality and maturity of each water business's current IT-architecture, other business-specific expenditure may be incurred in reviewing and upgrading this capability.

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.

³⁹ Victorian Auditor-General's Office 2019, *Security of Water Infrastructure Control Systems*, 9 May.

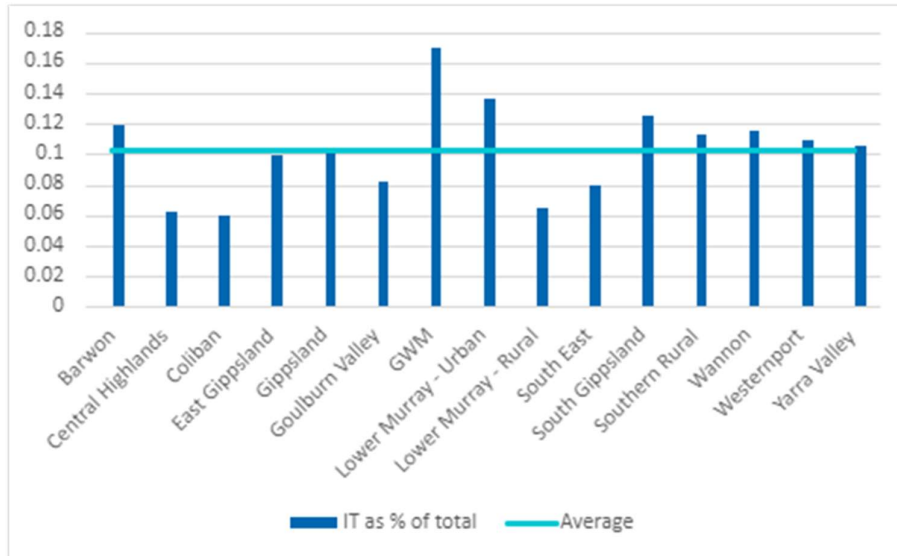
Figure A4: PS5 forecast: ICT operating expenditure per water connections (\$ per average number of water connections, 1 January 2023)



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)⁴⁰ 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

⁴⁰ 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 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).⁴¹ 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

⁴¹ 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.⁴² 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 2019-20.⁴³

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.⁴⁴ 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 2024.⁴⁵

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.⁴⁶ 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. However, the duration and extent of these wage growth pressures is also highly uncertain.

⁴² State of Victoria 2018, Strategy and Outlook 2018-19 Budget Paper No. 2, Department of Treasury and Finance, p.23.

⁴³ State of Victoria 2018, Strategy and Outlook 2018-19 Budget Paper No. 2, Department of Treasury and Finance, p.22.

⁴⁴ State of Victoria 2022, Strategy and Outlook 2022-23 Budget Paper No. 2, Department of Treasury and Finance, p.32.

⁴⁵ Reserve Bank of Australia 2022, Statement on Monetary Policy, November.

⁴⁶ 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.

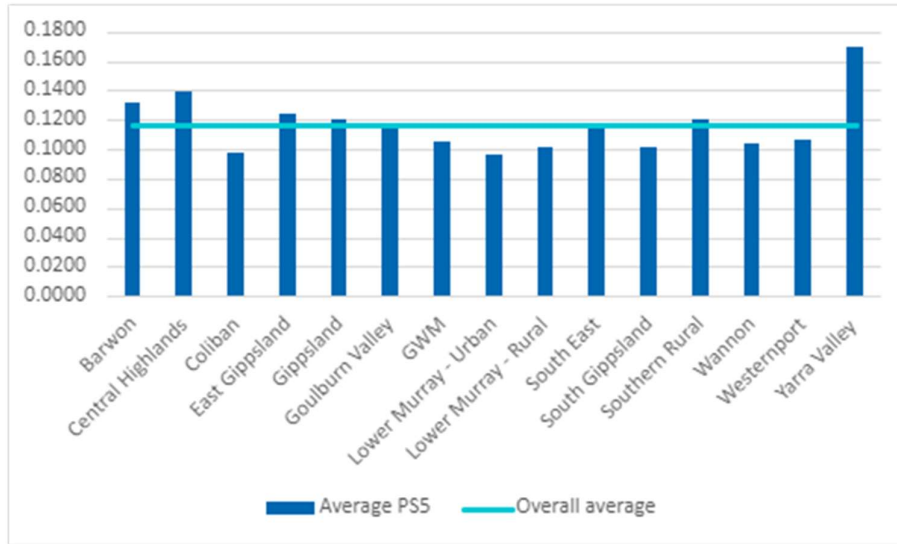
The impact of this will therefore vary between businesses and potentially within businesses given employees may be subject to different types of arrangements.

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.

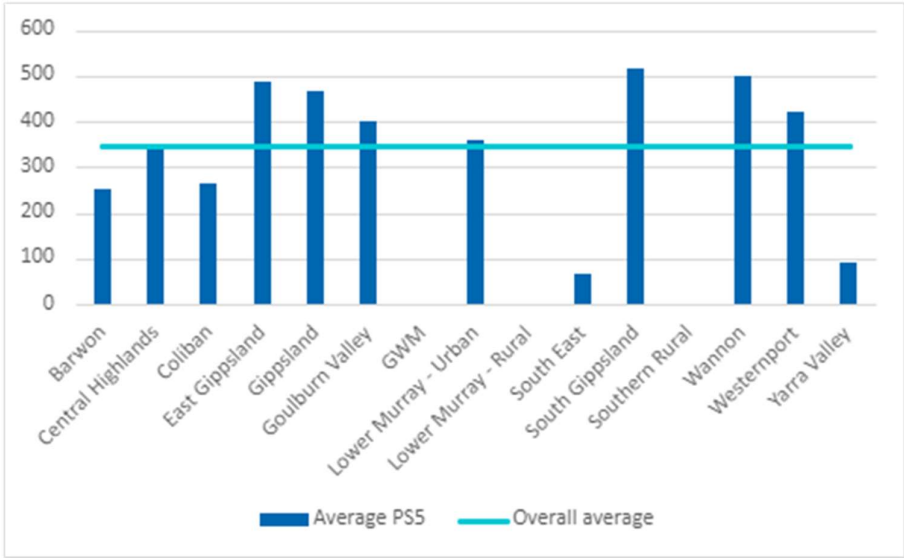
Figure A6: PS5 forecast average unit cost per FTE (\$ million per FTE, 1 January 2023)



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.

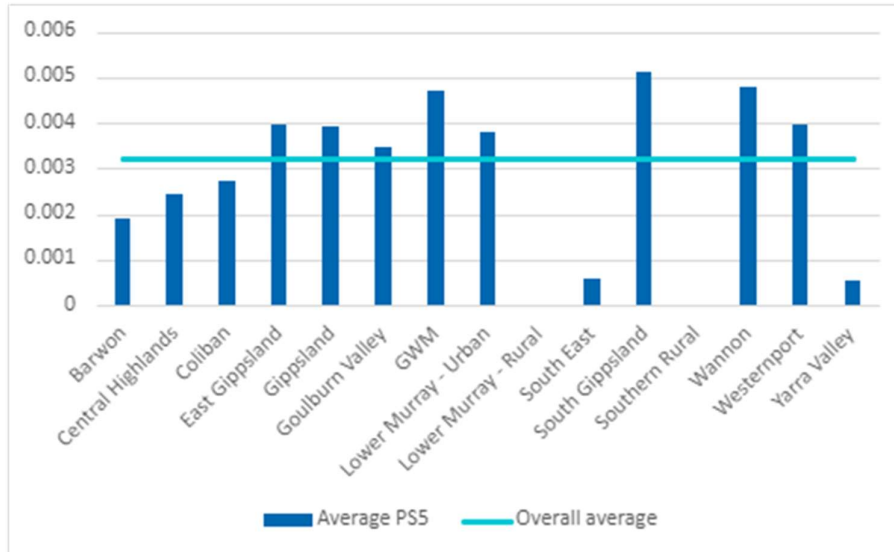
Figure A7: PS5 forecast: Average labour cost per water connection (\$ per average number of water connections, 1 January 2023)



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).

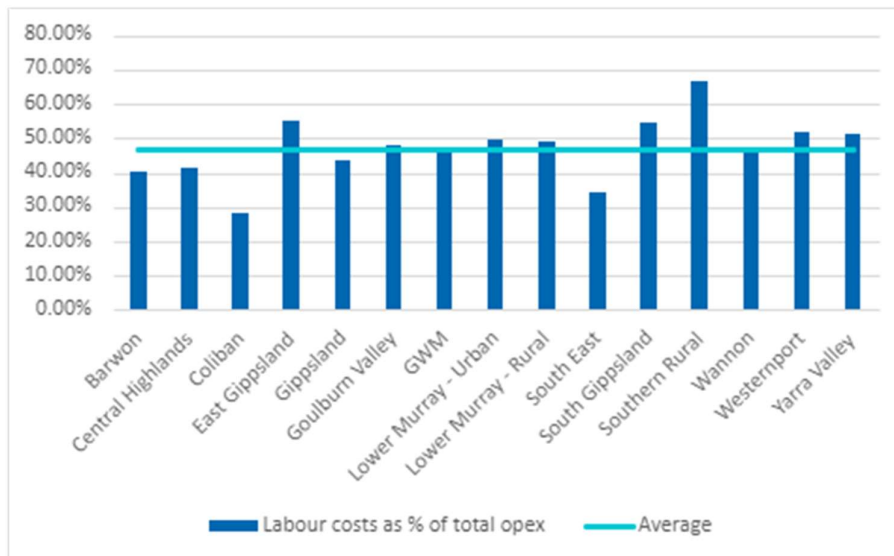
Figure A8: PS5 forecast average number of FTEs per water connection



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.

APPENDIX B: LIST OF DOCUMENTS REVIEWED FOR ASSESSMENT OF BARWON WATER'S FORECAST CAPITAL EXPENDITURE

- Barwon Water – 2023 Water Price Review Supporting Paper 2: Capital Expenditure (September 2022)
- Barwon Water – Portfolio Governance Framework Version 1.2 (23 December 2021)
- Barwon Water – Board Report on Capital Delivery Arrangements (18 August 2022)
- Barwon Water – Birregurra Water Supply Upgrade Business Case, Project W1430 (August 2019)
- Barwon Water – Recycled Water on the Bellarine – Stage 3 Business Case, Project R1252 (21 October 2022)
- Barwon Water – Pettavel Basin Augmentation Business Case, Project W1178 (14 April 2022)
- Barwon Water – Melbourne-Geelong Pipeline Pump Station Upgrade Business Case, Project W1503 (24 October 2022)
- Barwon Water – Bannockburn South Sewerage Pump Station and Rising Main Business Case, Project S1288 (15 September 2022)
- Barwon Water – Queenscliff Transfer Main Replacement Business Case, Project W1182 (24 October 2022)
- Barwon Water – Portarlington 6ML Tank Improvements Stage 2 Business Case, Project W1271 (27 September 2022)
- Barwon Water – Indented Head St Leonards Feeder Main Stage 3 Business Case, Project W1167 (26 August 2022)
- Barwon Water – Asset Management Policy Version 3.1 (14 July 2021)
- Barwon Water – Asset Management Strategy Version 1.6 (October 2022)
- Barwon Water – Asset Management Improvement Plan (October 2022)
- Barwon Water – Asset Renewal Plan: Major Sewer Mains, Price Submission 2023 (September 2022)
- Barwon Water – Asset Renewal Plan: Sewer Reticulation Mains, Price Submission 2023 (September 2022)
- Barwon Water – Asset Renewal Plan: Sewer Rising and Pressure Mains, Price Submission 2023 (September 2022)
- Barwon Water – Asset Renewal Plan: Water Reticulation Mains, Price Submission 2023 (September 2022)
- Barwon Water – Asset Renewal Plan: Headworks Pipelines, Price Submission 2023 (September 2022)
- Barwon Water – Asset Renewal Plan: Water Transfer and Feeder Mains, Price Submission 2023 (September 2022)

FTI Consulting is an independent global business advisory firm dedicated to helping organisations manage change, mitigate risk and resolve disputes: financial, legal, operational, political & regulatory, reputational and transactional. FTI Consulting professionals, located in all major business centres throughout the world, work closely with clients to anticipate, illuminate and overcome complex business challenges and opportunities. ©2023 FTI Consulting, Inc. All rights reserved. Connect with us on Twitter (@FTIConsulting), Facebook and LinkedIn. www.fticonsulting.com

- Barwon Water – Digital Strategy (August 2022)
- Barwon Water – Portfolio Management Plan, Northern and Western Geelong Growth Areas Assets Program for water, sewer and recycled water assets (September 2022)

FTI Consulting is an independent global business advisory firm dedicated to helping organisations manage change, mitigate risk and resolve disputes: financial, legal, operational, political & regulatory, reputational and transactional. FTI Consulting professionals, located in all major business centres throughout the world, work closely with clients to anticipate, illuminate and overcome complex business challenges and opportunities. ©2023 FTI Consulting, Inc. All rights reserved. Connect with us on Twitter (@FTIConsulting), Facebook and LinkedIn. www.fticonsulting.com

EXPERTS WITH IMPACT™

