

February 2023



# South East Water: Review of expenditure forecasts

2023 Water Price Review

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## Glossary

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

## Executive Summary

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

The Commission is required to assess the water businesses' proposals against a legal framework set out in the *Water Industry Regulatory Order 2014* and the Commission's PREMO pricing framework. We have assessed South East 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 South East Water's forecasts of operating and capital expenditure over the regulatory period can be reasonably assessed to be prudent and efficient.

### Forecast operating expenditure

South East Water has proposed an average net decrease in controllable operating expenditure (growth less efficiency factor) of 0.9 per cent per year for the regulatory period. When compared to other water businesses, this places South East Water first out of 13 urban water businesses subject to this review.

South East Water's forecast operating expenditure reflects:

- baseline 2021-22 expenditure of \$148.76 million, which is 5.8 per cent above the expenditure benchmark allowance approved by the Commission in the previous price review
- total step changes to the baseline of \$96.0 million across the regulatory period
- average growth in operating expenditure of 1.13 per cent per year and an efficiency factor of 2 per cent per year.

Based on South East Water's PS5 proposal, the further information provided and discussions with the business, we have formed the view that the majority of the forecast operating expenditure is consistent with a prudent business operating efficiently. This reflects our view that:

- the expenditure in the baseline year of 2021-22 appears reasonable, and does not appear to include any items that are non-recurring
- most of the proposed step changes are reasonable and supported by a sound rationale.

This is considered within the context of its proposed net baseline growth in operating expenditure of –0.9 per cent per year.

We recommend one adjustment to the step changes proposed by South East Water, which relates to improving water literacy. This adjustment has the effect of reducing South East Water’s forecast controllable operating expenditure by \$0.34 million per year over the PS5 regulatory period (a total of \$1.68 million).

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

	2023-24	2024-25	2025-26	2026-27	2027-28
<b>South East Water proposal</b>	<b>164.03</b>	<b>163.62</b>	<b>164.33</b>	<b>162.82</b>	<b>161.85</b>
<b>Recommended adjustments:</b>					
Water literacy	-0.34	-0.34	-0.34	-0.34	-0.34
<b>Adjusted operating expenditure</b>	<b>163.69</b>	<b>163.29</b>	<b>163.99</b>	<b>162.48</b>	<b>161.51</b>

## Forecast capital expenditure

South East Water has forecast capital expenditure of \$1,898 million for the PS5 regulatory period. This is 53 per cent more than its actual capital expenditure over the PS4 regulatory period and 69 per cent more than the forecast capital expenditure outlook for the PS5 regulatory period that it included in its PS4 submission.

South East 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 South East Water in relation to key issues for further investigation, including a half day workshop briefing session conducted at its offices on 30 November 2022, gave us a high 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 South East Water in the PS5 period.

As a result, we do not recommend any adjustments to South East 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, revenue requirement and key service outcomes to apply to water and sewerage services commencing on 1 July 2023 through to 30 June 2028 (referred to in this report as the PS5 regulatory period).<sup>1</sup> Each of the Victorian water businesses, including South East Water, submitted their proposals to the Commission for assessment on 30 September 2022.

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

This report sets out our independent expert view of the prudence and efficiency of South East Water's controllable operating expenditure and capital 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 1 July 2018 to 30 June 2023 (PS4) regulatory period.

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

- requiring additional water and wastewater monitoring and treatment
- increasing customer hardship due to cost-of-living pressures
- disrupting business operations, including the ability to carry out maintenance activities and higher rates of staff absenteeism
- changing work practices, including social distancing and hygiene requirements as well as transitioning to enable staff to work from home

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



- disrupting supply chains, putting pressure on the availability and cost of inputs
- increasing migration from Melbourne to regional areas.<sup>2</sup>

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

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

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

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

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

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

It further underlines the importance of scrutinising increases in expenditure, as well as proposed step changes, to ensure that they remain consistent with the actions of a prudent

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

business operating efficiently, including in how it responds to the uncertainties and challenges in its operating environment. It also does not alter the standards that should be reasonably expected of businesses in supporting and justifying any increases in expenditure for the next regulatory period, including being able to provide adequate supporting documentation (such as Board-approved policies or strategies and business cases).

### 1.3 Water industry regulatory framework

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

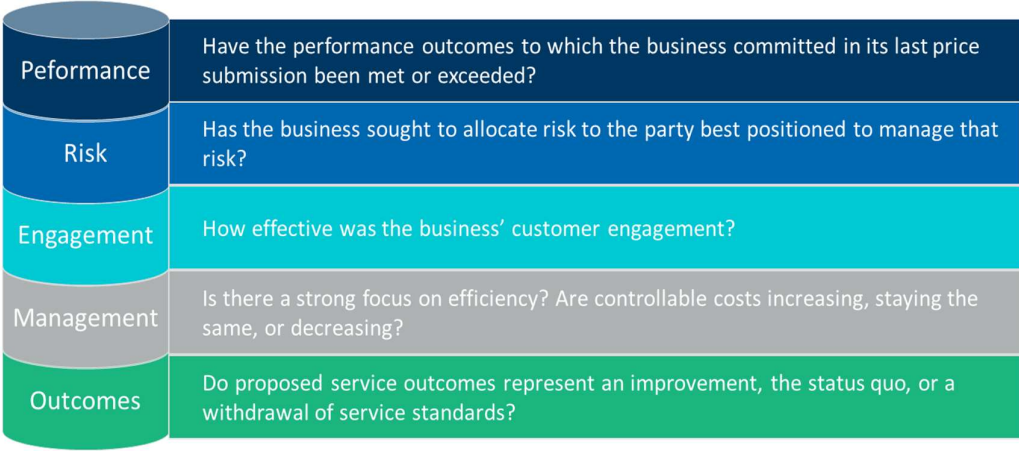
The Commission's regulatory framework places an emphasis on efficient delivery of services. Assessing the prudence and efficiency of a water business's expenditure forecasts is fundamental to achieving this objective.

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

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

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

Figure 1.1: The Commission’s PREMO framework



More conventional elements of PREMO include the retention of the building block approach, which provides reasonable certainty that prudent and efficient costs can be recovered. This includes an expenditure review to determine whether a water business’s proposed operating and capital 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 businesses’ proposals may require a more detailed review of their proposed expenditure while others may only require a review of some elements of their proposed expenditure (for example, specific items where expenditure is increasing).

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

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

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

## 1.4 Methodology and approach

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

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

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

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

Our process has involved several steps:

- an initial review of PS5 submissions, financial model templates and associated documentation
- comparison of each of the water business's proposed operating and capital expenditure proposals, including assumptions adopted in relation to growth trends, efficiency factors, and comparison of actual and proposed expenditure
- a Stage 1 (preliminary) assessment workshop undertaken with Commission staff identifying the key issues to be explored in our more detailed review
- visits and/or online discussions with each of the water businesses on key issues related to their proposal
- further review and analysis of further information or explanations provided.

We updated our review for an updated price review model provided to us by the Commission on 16 February 2023, which reflected adjustments for the reversal of several overhead costs South East Water had capitalised in its regulatory accounts for the year 2021-22. This had a flow on effect on its forecast operating and capital expenditure benchmarks going forward each year in the model. This update also impacted on the analysis

of the baseline controllable operating expenditure, as outlined in section 3.3. The updated model removes \$4.7m per year from SEW's capex forecast and moves \$4.35m into its 2021-22 baseline year actual opex figure.

## 1.5 Structure of this report

The structure of this report is as follows:

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

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

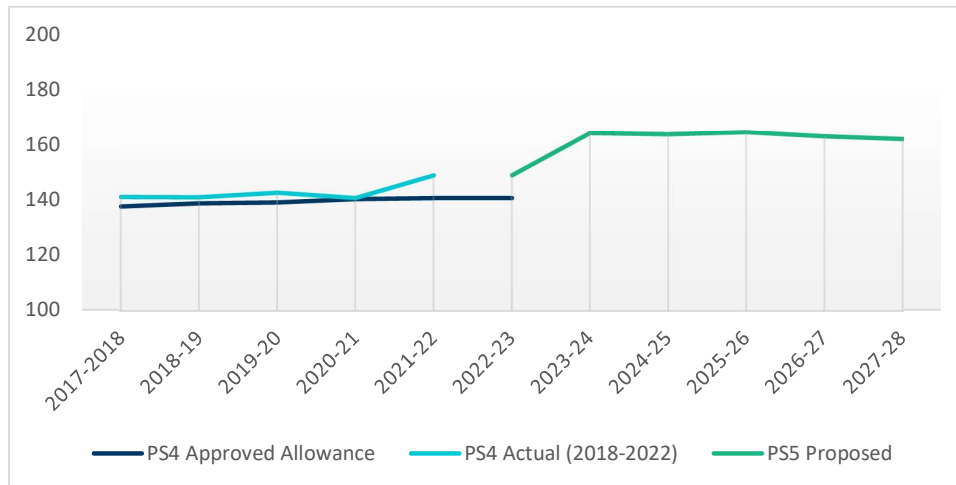
## 2 SUMMARY OF EXPENDITURE PROPOSAL

### 2.1 Forecast controllable operating expenditure

For the current PS4 regulatory period, the Commission approved a total controllable operating expenditure benchmark allowance for South East Water of \$699 million (\$ 1 January 2023).

For the first four years of the PS4 regulatory period, South East Water’s actual controllable operating expenditure was \$14.1 million (2.5 per cent) above the benchmark allowance approved by the Commission for those four years. This is shown in Figure 2.1.

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



Source: South East Water, SEW\_2023 Price Review Model - 2022-09-09 - SUBMISSION UPDATED, 16 February 2023; Essential Services Commission 2018, South East Water Determination Price Review Model: 1 July 2018 – 30 June 2023, 29 May.

South East Water’s baseline 2021-22 controllable operating expenditure is \$8.2 million (or 5.8 per cent) above the benchmark allowance approved by the Commission in the last price review.

South East Water has proposed total step changes to the baseline of \$96 million across the PS5 regulatory period, as outlined in Table 2.1.

Table 2.1: South East Water's proposed step changes (\$ 1 January 2023, millions)

Key drivers	Forecast expenditure
New maintenance model	22.35
IT expenditure	19.97
Water quality issues	16.03
Upgraded recycled water plants	11.18
Operating costs associated with digital metering	9.94
Payroll tax and superannuation	7.99
Traditional Owner engagement	2.35
Climate change	1.75
Water literacy	1.68
Aquarevo recycling plant	1.04
Dingley recycled water scheme	0.95
Environmental obligations	0.90
Growth assets	0.63
Removal of GSLs	(0.73)
<b>Total</b>	<b>96.02</b>

Source: South East Water 2022, Price Submission, A submission for water and sewerage pricing for the 2023-28 regulatory period, 30 September, pp.147-153.

South East Water forecasts an average growth factor for operating expenditure of 1.1 per cent per year and an efficiency factor of 2 per cent per year over the PS5 regulatory period.

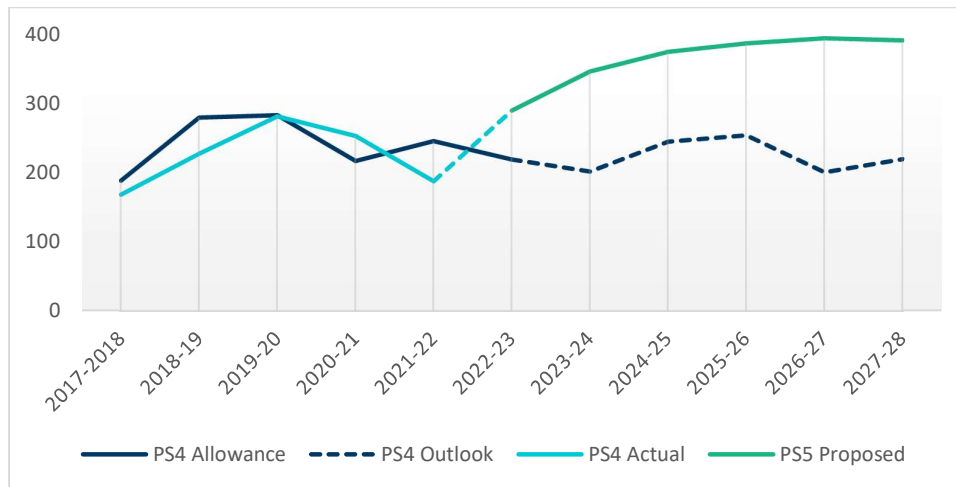
## 2.2 Forecast capital expenditure

South East Water has forecast capital expenditure of \$1,898 million for the PS5 regulatory period. As shown in Figure 2.2, this is:

- 53 per cent more than its actual capital expenditure (including 2022-23 forecast) over the PS4 regulatory period

- 69 per cent more than the forecast capital expenditure outlook for the PS5 regulatory period that it included in its PS4 submission.

Figure 2.2: South East 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 the business's 2018 forecast for 2023-24 to 2027-28.

Source: South East Water, SEW\_2023 Price Review Model - 2022-09-09 - SUBMISSION UPDATED, 16 February 2023; Essential Services Commission 2018, South East Water Determination Price Review Model: 1 July 2018 – 30 June 2023, 29 May.

The key drivers, projects and programs are:

- Renewals (33 per cent of the program)
- Growth (40 per cent of the program)
- Improvement/compliance (27 per cent of the program)
- Top 10 major projects, which appear well defined and appropriately costed (\$587.7 million) – including deployment of digital meters (\$206 million)
- 71 capital program allocations across service, asset and driver categories, including those summarised in Table 2.2 (\$1,333.4 million).



Table 2.2: Total project capital costs (\$ 1 January 2023, millions)

Program allocation description	Number of programs	Total expenditure over PS5 regulatory period
Sewer growth (pipelines and network)	3	158.5
Information technology (across water, sewerage and recycled water)	9	142.5
Sewerage treatment improvement/compliance	4	106.8
Sewer improvement/compliance (pipelines and network)	3	98.9
Sewer reliability (pipelines and network)	1	91.7
Potable water renewals	1	84.1
Sewerage treatment reliability	5	79.1
Potable water growth	1	76.2
Potable water improvement/compliance	1	67.5
Potable water quality	2	63.1
Recycled water growth	1	58.2
Potable water reliability	5	57.6
Sewer backlog	1	54.0
Sewerage treatment growth	3	43.2
Sewer renewals (pipelines and network)	1	28.7
<b>Total</b>		<b>1,210.1</b>

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

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

South East Water's top 10 capital expenditure projects, shown in Table 2.3, account for around 30.6 per cent of its proposed capital expenditure for the PS5 regulatory period.

Table 2.3: South East Water's top 10 capital expenditure projects (\$ 1 January 2023, millions)

Major capital expenditure project	Proposed cost over PS5 regulatory period
Digital metering – new connections and exchanges	206.0
Hanna Street capacity upgrade - Stage 2	70.3
Mt Martha Water recycling plant augmentation	54.8
Westernport Irrigation Scheme - Stage 1	52.5
Longwarry water recycling plant upgrade	48.2
Fishermans Bend water recycling plant and sewer connection	39.1
Ballarto Road East pump station and rising main	31.5
South East Regional Bio factory – Stage 1	30.2
Dingley recycled water scheme	29.0
Lang Lang water recycling plant	26.2

Source: South East 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).<sup>6</sup>*

The Commission has asked us to provide an independent expert view on whether South East 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 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.

The key steps in our approach were as follows.

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

<b>1</b>	<b>Review baseline expenditure</b>
	<ul style="list-style-type: none"><li>• <b>Adjustments for non-recurrent expenditure:</b> appropriate adjustments have been made for non-recurrent expenditure in the 2021-22 baseline year and/or additional recurrent expenditure incurred in the 2022-23 financial year</li><li>• <b>Key drivers of baseline uplifts:</b> where baseline 2021-22 expenditure is above the Commission's approved benchmark allowance, the key drivers are clear and provide sufficient justification for the increase if required. Material increases should be well support by documentation or evidence</li></ul>
<b>2</b>	<b>Review proposed step changes</b>
	<ul style="list-style-type: none"><li>• <b>Rationale:</b> we applied criteria to assess whether proposed step changes:<ul style="list-style-type: none"><li>○ comply with new, or changed, legislative or regulatory obligations</li><li>○ achieve an outcome or implement an initiative endorsed by customers or the community</li><li>○ recategorise expenditure between capital and operating expenditure, where it is necessary or appropriate to do so</li><li>○ reflect the incremental operating expenditure associated with a new prudent and efficient capital project</li><li>○ cannot be mitigated or otherwise absorbed by an efficient business operating within its approved budget (including the growth allowance).</li></ul></li><li>• <b>Supporting evidence:</b> key step changes have been substantiated, with further supporting evidence provided for material items</li></ul>
<b>3</b>	<b>Review proposed treatment of growth and the proposed efficiency factor</b>
	<ul style="list-style-type: none"><li>• <b>Net increase in operating expenditure (growth less efficiency factor):</b> if a business proposes a modest net increase, we may look more favourably on some step changes that may otherwise be considered either immaterial or could be absorbed in a larger growth forecast</li></ul>

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
<b>Electricity</b>	<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>
<b>Labour</b>	<p>The rationale for any material growth in employee numbers.</p> <p>Remuneration increases, having regard to each organisation’s Enterprise Agreement (EA) as well as conditions in labour markets, with several regional businesses citing challenges in attracting and maintaining people with the right skills. Some businesses have also referred to the Victorian Government’s 2022 Public Entity Executive Remuneration (PEER) review of executive remuneration.</p>
<b>IT</b>	<p>Software as a Service (SaaS), with all businesses either having transitioned, or are in the process of transitioning, to cloud-based services. This has also resulted in expenditure that would have been classified as capital expenditure now treated as operating expenditure.</p> <p>Cyber security, which is an important issue for all water businesses as well as utilities and other corporations more generally. This includes compliance with new obligations.</p>

### Electricity costs

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

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

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

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

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

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

#### IT expenditure

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

We have assessed 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 that have contributed to increases in baseline expenditure and/or step changes, we have sought to assess whether:

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

<sup>7</sup> Schneider Electric 2022, Electricity Price Forecast, Covering financial year 23 to 2028, 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 South East Water's forecast controllable operating expenditure for the PS5 regulatory period.

### 3.3 Assessment of the baseline

After adjusting for non-recurring items, South East Water's adjusted controllable operating expenditure in 2021-22 was \$148.8 million, compared to the \$140.6 million benchmark allowance approved by the Commission. This is \$8.2 million (or 5.8 per cent) more than the benchmark allowance approved by the Commission in the last price review.

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

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

We requested an explanation regarding the overspend against the Commission's benchmark allowance. South East Water provided a response indicating that two items relating to a change in its capitalisation policy need to be considered when comparing its baseline expenditure against the benchmark allowance<sup>8</sup>. Specifically, South East Water stated that:

<sup>8</sup> South East Water, email from Cameron Leavy, Manager Business Planning and Reporting, 6 December 2022.

- a review was undertaken of its capitalisation policy for developer activity at the end of 2016-17 (the baseline year for the PS4 review), which found that \$5.5 million of expenditure that was previously capitalised should be operating expenditure
- a review of its corporate overhead charge-out policy resulted in \$6.1 million of expenditure that had previously been capitalised being treated as operating expenditure
- after allowing for this adjustment, South East Water’s baseline spend of \$148.8 million is \$3.5 million (2.6 per cent) below the adjusted benchmark allowance.

We understand that the Commission will be undertaking further verification regarding the appropriateness of South East Water’s changes to its capitalisation policy and how this impacts the assessment of the baseline. As a result, we do not propose any adjustments to South East Water’s proposed baseline.

### 3.4 Assessment of the step changes

South East Water has proposed step changes to the baseline of \$96.02 million across the PS5 regulatory period. Table 3.2 summarises the information provided by South East Water in its PS5 submission.

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

Key step changes	Forecast expenditure	Explanation
New maintenance model	22.35	South East Water has entered into a contract for maintenance services for a period of five years. This step change reflects the incremental cost of the maintenance services provided under the new contract.
Operating costs associated with digital metering	9.94	Digital meters will provide customers with benefits and drive prices lower over the long term (the business case covers 30 years). Cost increases are expected for telecommunications, data analytics and customer engagement. Savings will be achieved by reducing labour costs for meter reading, billing and accounts, as well as efficiencies from improved network maintenance and a reduction in non-revenue water.
IT expenditure	19.97	Increased licensing costs arising from investment in new technologies that require new licensing agreements. The requirement stems from ageing systems that necessitate replacement, an increase in the security threat landscape, an increase in cloud computing and to allow South East Water to achieve efficiency through removal of manual processes. Also



Key step changes	Forecast expenditure	Explanation
		includes an allowance for IT security to continue to monitor and manage cyber security threats.
Water quality issues	16.03	Following three water quality incidents in 2020 and 2021, South East Water has been working closely with the Department of Health to address any gaps in water quality management. Increased expenditure is required to implement actions that will address shortcomings identified.
Upgraded recycled water plants	11.18	A detailed review of existing infrastructure and capacity indicates the need to upgrade assets to continue to meet customer service levels and regulatory compliance requirements. The step change comprises costs associated with sludge management, mechanical and electrical maintenance, laboratory sampling and testing, chemicals, energy and labour.
Payroll tax and superannuation	7.99	Following the Royal Commission into Victoria's mental health system, a mental health and wellbeing surcharge was implemented of 0.5 per cent of Victorian taxable wages over \$10 million.  The superannuation guarantee rate is proposed to increase from 10 per cent to 12 per cent by the end of the PS5 regulatory period.
Traditional Owner engagement	2.35	Legal and policy requirements to formally engage Traditional Owners have increased. South East Water recognises the knowledge and rights of Traditional Owners and is keen to better learn from and work with them to realise self-determination. Additional funding is required to support the capacity of Traditional Owner groups to collaborate in land and water decision making and to work on water and land management project opportunities.
Climate change	1.75	South East Water has completed a comprehensive climate risk identification and assessment. The proposed step change incorporates costs associated with actions including: strategic asset management; strategic water resource management; and business resilience and emergency response planning.
Water literacy	1.68	Additional costs to support the development and execution of South East Water's water literacy strategy, to build community water knowledge, as agreed with its community panel.
Aquarevo recycling plant	1.04	Aquarevo is supplied with recycled water from the nearby Eastern Irrigation Scheme pipeline. It is proposed to construct a local water recycling plant within the estate. The plant is required due to a commitment to customers as part of the

Key step changes	Forecast expenditure	Explanation
		land sales process and to enable the enclosing of the water cycle within the development.
Dingley recycled water scheme	0.95	Increased operating costs associated with bringing recycled water from the Eastern treatment plant to four local government areas within the South East Water service area, from the time of trunk main construction.
Environmental obligations	0.90	Additional FTE to manage and oversee compliance with new environmental protection regulations came into effect in 2021 ( <i>Environment Protection Regulations 2021 (Vic)</i> ), which impose a greater duty upon South East Water in respect of its risk management approach to the environment.
Growth assets	0.63	Additional expenditure associated with developing 10 new pumping stations, to service growth in the PS5 price period.
Removal of GSLs	(0.73)	Negative step change associated with absorbing the costs associated with the GSL scheme to drive better incentives within the organisation.
<b>Total</b>	<b>96.02</b>	

Source: South East Water 2022, Price Submission, A submission for water and sewerage pricing for the 2023-28 regulatory period, 30 September, pp.147-153.

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.

We met with key staff at South East Water, who provided additional information regarding the proposed step changes. Our assessment of the step changes is outlined below.

### 3.4.1 New maintenance model – \$22.35 million

South East Water provided a Board paper<sup>9</sup> and separate explanatory document<sup>10</sup> with further details regarding the step change associated with the new maintenance contract. This information provides details of South East Water's competitive tender process to outsource maintenance services for the next five years, including the expected savings these arrangements will likely provide.

The additional costs of \$4.47 million per year reflect a tighter resource market that has resulted from the very high level of construction activity in Victoria (including major projects such as the Metro Tunnel, Westgate Tunnel, Level Crossing Removals, North East Link and Airport Rail Link) and a slowing of population growth due to the COVID-19 pandemic.

The savings that may arise from the new maintenance model have been included in the 2 per cent efficiency target that South East Water has applied across all its controllable operating costs (see section 3.5).

The information provided by South East Water regarding this step change clearly outlines the competitive process it has undertaken to procure its maintenance services to provide value for money. As a result, we are of the view that this proposed step change meets the criteria, specifically that costs are sufficiently material that they are not able to be met by an efficient business operating within its approved budget (including the growth allowance) or can be otherwise mitigated.

### 3.4.2 Operating costs associated with digital metering – \$9.94 million

South East Water provided its business case for the digital metering program<sup>11</sup>, as well as a separate explanatory document<sup>12</sup> that provided further details regarding the step increase in operating costs over PS5.

The explanatory document outlines the benefits from the program and provides a breakdown of both the increases and decreases in operating costs expected in the PS5 regulatory period. Table 3.3 outlines the operating costs expected to increase.

<sup>9</sup> South East Water 2022, Board paper: Maintenance Model Tender, 28 February.

<sup>10</sup> South East Water 2022, Price Submission Step Change Documentation, Revised water & sewer maintenance model.

<sup>11</sup> Frontier Economics 2022, Digital Meter Business Case – Business Case for South East Water, 4 November.

<sup>12</sup> South East Water 2022, Price Submission Step Change Documentation, Digital Metering Program.

Table 3.3: Expected increases in operating costs attributable to the digital metering program (\$ 1 January 2023, millions)

Key drivers	Value	Explanation
Device communications	9.0	Costs associated with the communication requirements for each of the digital meters, which is equivalent to \$5.25 per year per device.
IT systems	6.9	Internet of Things and data analytics platforms cost, which are based on agreed rates with current vendor.
Customer engagement	2.4	Further customer engagement to help achieve water savings.
<b>Total</b>	<b>18.3</b>	

Source: South East Water, Price Submission Step Change Documentation – Digital Metering Program, p.3.

Table 3.4 outlines the savings in operating costs expected to be achieved from this program in the PS5 regulatory period.

Table 3.4: Expected reductions in operating costs attributable to the digital metering program (\$ 1 January 2023, millions)

Key drivers	Value	Explanation
Manual meter reading	1.8	Savings achieved by removing the need for manual meter reading because of the digital meter roll-out.
Billing	2.5	Higher take-up of e-billing throughout the roll-out, which is forecast to achieve 80 per cent of customers with digital meters by 2028 as compared to 65 per cent of customers without.
Network operations	0.7	An additional \$2.1 million for repairing network leaks to achieve a forecast 1 per cent non-revenue water reduction is more than offset by \$2.8 million in network maintenance efficiencies.
Labour	3.3	Additional labour requirements (e.g. IT and network support) are more than offset by labour efficiencies, mainly in the areas of customer calls/complaints and manual meter reading support.
<b>Total</b>	<b>8.3</b>	

Source: South East Water, Price Submission Step Change Documentation – Digital Metering Program, p.3.

South East Water expects the digital metering program to deliver a net reduction in operating costs over the longer term as efficiencies are realised. The business case

forecasts a positive net present value of \$158.7 million over the life of the project, which is 30 years.

South East Water has tested customers' support and willingness to pay for the digital metering program. We have adopted a consistent approach to assessing the outcome of willingness to pay studies 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?

South East Water's engagement was undertaken as part of its overall engagement for the PS5 regulatory period, which included:

- public workshops, focus groups, stakeholder interviews and online surveys
- willingness to pay studies
- a community panel that considered how to best reflect customer and stakeholder feedback.

The willingness to pay studies were comprehensive, with around 8,500 people engaged. Results showed that customers are willing to pay an additional \$17.55 per year to roll-out digital meters.<sup>13</sup>

After considering the engagement undertaken by South East Water, the community panel made eight recommendations to the South East Water Board to include in its PS5 submission. The digital metering program was one of the recommendations that received the strongest level of comfort from the community panel.

The information provided by South East Water sufficiently demonstrates that customers support the digital metering program and that over the longer term the program will deliver cost savings. Given the level of customer support, including the willingness of customers to pay an additional amount through water bills in the PS5 regulatory period, we are of the view that this proposed step change meets the criteria related to:

- achieving an outcome or implement an initiative that is endorsed by customers or broadly meets accepted changes in community expectations, and

<sup>13</sup> South East Water 2022, ESC Opex Review Presentation, 9 December.

- is incremental operating expenditure associated with a new prudent and efficient capital project.

### 3.4.3 Information Technology expenditure – \$19.97 million

South East Water provided an explanatory document regarding the step change associated with information technology (IT) expenditure.<sup>14</sup> This document indicates that the step change reflects investment in new technologies that require new licensing agreements, whereas current systems have no licensing obligations due to them being built in-house. These new licence costs are treated as operating expenditure whereas the previous IT related investment costs were treated as capital expenditure (refer Appendix A).

The requirement for new technology stems from ageing systems that necessitate replacement, an increase in the security threat landscape, an increase in cloud computing and to improve efficiency by removing manual processes.

The information provided by South East Water regarding this step change clearly outlines the need for investment in new technology and how this will impact operating costs. As a result, we are of the view that this proposed step change meets the criteria outlined above, specifically:

- recategorising expenditure between capital and operating expenditure, where the business can demonstrate that it is necessary or appropriate to do so, and
- the expenditure 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.

### 3.4.4 Water quality issues – \$16.03 million

South East Water provided an explanatory document<sup>15</sup> regarding the step change associated with addressing water quality issues, along with other documentation including:

- a copy of a Joint Action Plan between the Department of Health, the Department of Environment, Land, Water and Planning, Greater Western Water, Melbourne Water, South East Water and Yarra Valley Water that was a result of a water quality incident at the Silvan Water Treatment Plant<sup>16</sup>
- a 2021 internal audit report on drinking water quality<sup>17</sup>

<sup>14</sup> South East Water 2022, Price Submission Step Change Documentation, Information Technology Portfolio.

<sup>15</sup> South East Water 2022, Price Submission Step Change Documentation, Water Quality.

<sup>16</sup> Silvan Drinking Water Quality Incident Joint Action Plan 2022, 2 August.

<sup>17</sup> Ernst & Young 2021, Drinking Water Quality Internal Audit Report, August.

- a draft guidance document on drinking water quality advisories and protocols released by the Department of Health and Human Services<sup>18</sup>
- a Water Quality/Water Operations Chlorination Strategy document.<sup>19</sup>

The information provided by South East Water regarding this step change provides sufficient justification for the increased focus on water quality, as well as the planned activities to be undertaken across metropolitan Melbourne to address these issues. As a result, we are of the view that this proposed step change meets the criteria outlined above, 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.

#### 3.4.5 Upgraded recycled water plants – \$11.18 million

In its PS5 submission, South East Water indicated that it is proposing to upgrade four of its recycled water plants to meet the capacity needs associated with future growth. This step change consists of additional operating costs for the upgraded treatment plants and includes costs associated with sludge management, mechanical and electrical maintenance, laboratory sampling and testing, chemicals, energy and labour.

We have assessed South East Water’s proposed capital expenditure, including the associated increase in operating costs, and have not proposed any adjustments (see Section 4.3). As a result, we are of the view that this proposed step change meets the criteria outlined above, specifically, incremental operating expenditure associated with a new prudent and efficient capital project.

#### 3.4.6 Payroll tax and superannuation – \$7.99 million

South East Water outlined in its PS5 submission that it is proposing a step change to fund increased costs associated with:

- the Victorian Government’s recent introduction of a new mental health and wellbeing surcharge
- additional costs associated with an increase in the SGC rate from 10 per cent to 12 per cent by the end of PS5 regulatory period (refer Appendix A).<sup>20</sup>

<sup>18</sup> Department of Health and Human Services 2020, Drinking water quality advisories and protocols - Draft guidance, December.

<sup>19</sup> South East Water, Water Quality/Water Operations Chlorination Strategy.

<sup>20</sup> South East Water 2022, Price Submission, A submission for water and sewerage pricing for the 2023-28 regulatory period, 30 September, p.152.

The information provided by South East Water provides sufficient justification for this step change. As a result, we are of the view that this proposed step change meets the criteria outlined above, specifically that it is necessary to comply with new, or changed, legislative or regulatory obligations.

#### 3.4.7 Traditional Owner engagement – \$2.35 million

South East Water provided an explanatory document regarding the step change associated with Traditional Owner engagement.<sup>21</sup> It proposes to support the capacity of Traditional Owner groups to collaborate in land and water decision making and to work on water and land management project opportunities.

The information provided by South East 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 outlined above, 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.

#### 3.4.8 Climate change – \$1.75 million

South East Water provided an explanatory document with further details regarding the step change associated with climate change.<sup>22</sup> It proposes to complete a strategic management of climate change adaptation plan, a strategic water resources plan and improve business resilience. Most of the step change relates to additional FTEs to undertake this work, with some further expenditure for research and sourcing updated climate change-related data.

The information provided by South East Water regarding this step change clearly justifies the need for these projects 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 outlined above, 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).

#### 3.4.9 Water literacy – \$1.68 million

South East Water provided an explanatory document regarding the step change associated with water literacy.<sup>23</sup> It received support from its customers during its engagement on the

<sup>21</sup> South East Water 2022, Price Submission Step Change Documentation, Traditional Owners Engagement.

<sup>22</sup> South East Water 2022, Price Submission Step Change Documentation, Climate Adapt.

<sup>23</sup> South East Water 2022, Price Submission Step Change Documentation, Water Literacy.



price submission to do more to improve water literacy. In response, South East Water proposes to develop and execute a strategy aimed at significantly increasing its community's water knowledge. It plans to do this by developing a strategy to enhance its program, which it will complete in the first year of PS5 and then implement over the remaining years of the regulatory period.

The information provided by South East Water regarding this step change clearly outlines the reasons for this initiative but does not clearly articulate how the strategy will be delivered. The activities to be undertaken and their associated costs were not provided by South East Water, which meant that we were unable to test whether the program was appropriate and efficient.

As a result, we are of the view that this proposed step change does not meet the criteria outlined above and we recommend that South East Water's step changes are adjusted to remove the \$1.68 million for water literacy over the PS5 regulatory period.

#### 3.4.10 Aquarevo recycling plant – \$1.04 million

South East Water provided an explanatory document regarding the step change associated with the Aquarevo recycling plant.<sup>24</sup> The Aquarevo recycling plant is an integrated water management residential development at South East Water's now redundant Cranbourne treatment plant. It features a combination of water sustainability solutions aimed at reducing water consumption and stormwater run-off events.

The step change in operating costs for the PS5 regulatory period are associated with the final component of the project, being the construction of the water recycling plant, which will lead to increased costs to operate the plant.

An analysis was undertaken in 2017 by South East Water as part of the approval process for the project that forecast savings of \$1.60 per year on household water bills across all South East Water customers. South East Water has recently undertaken a high-level review of the revenue and cost assumptions for the project, which demonstrate that those assumptions are being achieved and that the project will result in lower customer bills.<sup>25</sup>

South East Water's information regarding this step change clearly justifies the need for the project and its overall impact on customer bills. As a result, we are of the view that this proposed step change meets the criteria outlined above, specifically that it represents

<sup>24</sup> South East Water 2022, Price Submission Step Change Documentation, Aquarevo Water Recycling Plant.

<sup>25</sup> South East Water, email from Adam Jowett, Planning and Revenue Manager, 13 December 2022.

incremental operating expenditure associated with a new prudent and efficient capital project.

#### 3.4.11 Dingley recycled water scheme – \$0.95 million

In its PS5 submission, South East Water indicated that it is proposing to deliver a recycled water scheme in Dingley.<sup>26</sup> The scheme will source recycled water from the Eastern Treatment Plant and distribute it to four local government areas in South East Water’s service area. The step change in costs represents the operating costs associated with this project from the time of trunk main construction.

We have assessed South East Water’s proposed capital expenditure, including the associated increase in operating costs, and have not proposed any adjustments (see Section 4.3). As a result, we are of the view that this proposed step change meets the criteria outlined above, specifically that it represents incremental operating expenditure associated with a new prudent and efficient capital project.

#### 3.4.12 Environmental obligations – \$0.90 million

South East Water’s PS5 submission noted that the *Environment Protection Regulations 2021 (Vic)* are imposing an increased duty in respect of environmental risk management. As a result, South East Water is proposing a step change to fund an additional full time equivalent (FTE) position to manage and oversee its compliance with the new regulations.

The information provided by South East Water provides sufficient justification for this step change and as a result, we are of the view that this proposed step change meets the criteria outlined above, specifically that it is necessary to comply with new, or changed, legislative or regulatory obligations.

#### 3.4.13 Growth assets – \$0.63 million

South East Water provided an explanatory document regarding the step change associated with these new growth assets.<sup>27</sup> It has suggested that the step change is required to allow for the additional expenditure to operate the significant new sewer pump station assets planned for PS5 regulatory period. South East Water has included only the incremental costs associated with growth in its forecast controllable operating costs. This results in an average increase in operating costs of 1.13 per cent per year, which is lower than its forecast 1.35 per cent average increase in customer numbers.

<sup>26</sup> South East Water 2022, Price Submission, A submission for water and sewerage pricing for the 2023-28 regulatory period, 30 September, p.151.

<sup>27</sup> South East Water 2022, Price Submission Step Change Documentation, New Assets.

South East Water did not include the costs associated with 10 additional pump stations in its incremental growth forecast as these were considered material and warranted transparency. It has therefore proposed the costs associated with these growth assets as a step change. South East Water has noted that had it included these costs in its growth forecast, it would have had the effect of increasing it from an average of 1.13 per cent to 1.17 per cent per year.

The additional supporting information provided by South East Water regarding these costs is comprehensive and clearly 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 outlined above, specifically that these costs represent incremental operating expenditure associated with a new prudent and efficient capital project.

#### 3.4.14 Summary of our step change assessment

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

We have also considered these within the context of South East Water's proposed net annual growth in expenditure over the PS5 regulatory period. As outlined below, its net expenditure growth factor of -0.9 per cent per year is the best of all urban water businesses.

We recommend one adjustment to South East Water's forecast controllable operating expenditure in relation to the proposed step change for costs associated with improving water literacy. This adjustment has the effect of reducing South East Water's forecast controllable operating expenditure by \$1.68 million over the PS5 regulatory period as shown in Table 3.6 below.

### 3.5 Forecast growth and efficiency factors

South East Water is forecasting average growth in operating expenditure of 1.13 per cent per year and an efficiency factor of 2 per cent per year over the PS5 regulatory period. This results in a net decrease in operating expenditure over the PS5 regulatory period of 0.9 per cent per year. When comparing this net result against other water businesses, South East Water ranks first out of 13 urban water businesses subject to this review (see Table 3.5).

Table 3.5: Net average increase in operating expenditure per year by business

Water business	Net average annual increase
<b>South East Water</b>	<b>-0.9%</b>
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 South East Water’s PS5 proposal, the further information provided and discussions with the business, we have formed the view that the majority of the forecast operating expenditure is consistent with a prudent business operating efficiently. This reflects our view that:

- the expenditure in the baseline year of 2021-22 appears reasonable, and does not appear to include any items that are non-recurring
- most of the proposed step changes are reasonable and supported by a sound rationale.

This is considered within the context of its proposed net baseline growth in operating expenditure of –0.9 per cent per year.

We propose to make one adjustment to the step changes proposed by South East Water, which relates to improving water literacy. This adjustment has the effect of reducing South East Water’s forecast controllable operating expenditure by \$0.34 million per year over the PS5 regulatory period (a total of \$1.68 million).

Table 3.6: Recommended adjustments – controllable operating expenditure (\$ 1 January 2023, millions)

	2023-24	2024-25	2025-26	2026-27	2027-28
<b>South East Water proposal</b>	<b>164.03</b>	<b>163.62</b>	<b>164.33</b>	<b>162.82</b>	<b>161.85</b>
<b>Recommended adjustments:</b>					
Water literacy	-0.34	-0.34	-0.34	-0.34	-0.34
<b>Adjusted operating expenditure</b>	<b>163.69</b>	<b>163.29</b>	<b>163.99</b>	<b>162.48</b>	<b>161.51</b>

## 4 CAPITAL EXPENDITURE ASSESSMENT

### 4.1 Overview of assessment approach

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

*.... capital expenditure that would be incurred by a prudent service provider acting efficiently to achieve the lowest cost of delivering service outcomes, taking into account a long-term planning horizon (prudent and efficient forecast capital expenditure).<sup>28</sup>*

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

Figure 4.1: Capital expenditure assessment criteria

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

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

We have assessed South East Water's forecast capital expenditure for the PS5 regulatory period focusing primarily on a review of asset management, capital planning and prioritisation frameworks and processes and how they have been applied. We have also reviewed key supporting documentation for:

- a sample of five of the top 10 capital expenditure projects
- the potable water growth, improvement/compliance, water quality and renewals programs

<sup>28</sup> Essential Services Commission, 2023 Water Price Review: Guidance Paper, August 2022 Amendment, p.33.

- the sewer growth, improvement/compliance and renewals programs
- the sewerage treatment improvement/compliance programs
- the land purchase program.

Our assessment is based on a review of the information contained in South East Water's PS5 submission and additional information provided to us in response to our queries. We also conducted a half day workshop with South East Water at its Frankston office to explore this information and additional related queries in more detail.

South East Water's PS5 submission supporting its proposed capital expenditure program was comprehensive and provided good context and justification in relation to the forecast expenditure increase and associated drivers. However, we requested additional information in relation to the following issues:

- the significant increase in capital expenditure forecasts for the PS5 regulatory period compared to the PS4 regulatory period (particularly relating to the improvement/compliance and growth drivers)
- background to the digital utility program and the proposed digital metering deployment program
- proposed land purchases.

South East Water provided comprehensive responses addressing all of our additional queries. This included detailed documentation of the capital planning processes used to develop the program, relevant Board and Committee papers and reports, asset lifecycle management plans and relevant strategies, major project summaries and the digital metering program business case. Appendix B contains a list of documents provided by South East Water and reviewed as part of our assessment of its proposed capital expenditure program.

## 4.2 Assessment of overall capital program

South East Water is currently on track to deliver its capital expenditure program for the PS4 regulatory period in line with the benchmark allowance approved by the Commission as part of the last price review. This is despite a range of variations and changed circumstances relating to program drivers, project delays and additional needs and impacts connected to COVID-19 and sewer compliance needs relating to asset failures.

South East Water's ability to manage these impacts within the Commission's PS4 capital expenditure allowance reflects an ongoing 'risk banking' reprioritisation process. This process draws on savings from projects delivered under budget and projects that are re-scoped and deferred as circumstances change and timing uncertainties clarified. These

savings are applied to fund any increased needs in other areas as dictated by emerging and evolving risk.

Despite managing to maintain its PS4 capital expenditure in line with the Commission's benchmark allowance, South East Water has forecast a significant increase in capital expenditure for the PS5 regulatory period. This increase relates particularly to the improvement/compliance and growth drivers and the proposed digital meter deployment program.

#### 4.2.1 Link to customer outcomes and obligations

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

- Renewals (33 per cent of the program)
- Growth (40 per cent of the program)
- Improvement/compliance (27 per cent of the program)
- top 10 projects, which appear well defined and appropriately costed (\$587.7 million) – including deployment of digital meters (\$206 million)
- 71 capital program allocations across service, asset and driver categories (\$1,333.4 million).

The supporting strategy, asset lifecycle management plan, major project summary and business case documents reviewed provide strong justification for the projects and programs that underpin the overall capital expenditure program and forecast. They also provide insight into how each element of the program supports South East Water's five key customer outcomes:

- get the basics right always (safe and reliable services)
- warn me, inform me (customers better informed in relation to disruptions and leaks)
- fair and affordable for all
- make my experience better
- support my community, protect our environment.

#### 4.2.2 Comparison of forecast and actual capital expenditure – PS4

South East Water's actual/forecast capital expenditure for the PS4 regulatory period is currently \$1,241.7 million. This is within 0.4 per cent of the benchmark allowance approved by the Commission for the PS4 regulatory period. The key increased expenditure pressures managed through the PS4 regulatory period include:



- impacts from COVID-19 including to enable remote working capability
- increased IT security-related projects
- increased sewer spill management compliance obligations in response to sewer spill incidents because of asset failures
- increased investment in sewer renewals to reactively manage higher than expected sewer asset failures relating to climatic conditions
- cost escalation.

Despite these increased expenditure pressures, South East Water has effectively managed its capital expenditure budget by 'risk banking', as referred to above. These increased expenditure pressures were offset by:

- reduced water renewals expenditure, given lower water leaks and bursts than forecast
- reprioritised reductions in planned IT system replacement expenditures to release funds for other higher priority projects
- lower than forecast growth rates resulting from COVID-19 impacts.

Delivery performance for the \$232 million top 10 major PS4 projects were significantly different to those originally planned. Two projects were completed on time, while two were completed late. South East Water removed capital expenditure allowances for another two of the 10 major projects (the Elster Creek Catchment and Clayton East and West Catchment Capacity Improvement projects) from its PS4 program given the risk of uncertain timing. This was subsequently reflected in the Commission's determination, but the projects were retained as major projects and development and planning work continued, resulting in lower cost options being adopted to satisfy project needs and the deferral of significant upgrade works without compromising levels of service.

Of the remaining four major PS4 period projects, we note the following.

- A portion of the works for the Pakenham East Branch Sewer Upgrade and the Hanna Street Capacity Improvements projects have been deferred. They are now to be incorporated into the South East Regional Biofactory and the Hanna Street Capacity Upgrade – Stage 2 projects in the PS5 regulatory period to achieve better and more cost effective overall outcomes.
- While there have been delays with the planned Fishermans Bend and Pakenham Water Recycling Plant Upgrade land purchases, South East Water is still progressing work in order to complete these purchases within the PS4 regulatory period. Hence, the capital expenditure allowances for these land purchases are likely to be accommodated within the existing PS4 regulatory period forecast,

without the need for additional capital expenditure to be included in the PS5 regulatory period forecast.

#### 4.2.3 Forecast capital expenditure – PS5

South East Water’s capital expenditure forecast for the PS5 regulatory period is \$1,898 million. This is:

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

Forecast capital expenditure is projected to increase further in the PS6 regulatory period because of a projected 34 per cent increase in growth expenditure compared to the PS5 regulatory period. Renewals expenditure is expected to reduce by around 27 per cent in the PS6 regulatory period compared to PS5 regulatory period levels, mainly as a result of the forecast completion of the digital metering deployment program early in the PS6 regulatory period. Compliance/improvement expenditure is forecast to remain relatively stable.

The key drivers of the forecast \$673 million increase in capital expenditure in the PS5 regulatory period compared to the PS4 regulatory period include:

- significant increases in construction costs experienced since mid-2021 relating to supply chain and labour availability constraints and fuel prices, exacerbated by the impacts of COVID-19 (around \$263 million)
- implementation of the digital metering deployment program (\$206 million)
- a range of other increases relating to:
  - updated environmental risk assessments for sewerage management as required under South East Water’s General Environmental Duty under the *Environmental Protection Act 2017* (including consideration of the impacts of, and responses to, recent sewer spill incidents, such as the Baxter Sewer spill in February 2019)
  - drinking water quality management improvements driven by the 2020 Silvan Reservoir chlorination failure water quality incident
  - safety improvements to maintain safety regulation compliance for critical assets
  - growth-driven water recycling plant capacity augmentations at Longwarry, Mount Martha and Lang Lang treatment plants and works at the Pakenham treatment plant that will contribute to the staged construction of a new

South East Regional Biofactory treatment plant from the PS6 regulatory period.

South East Water has developed its forecast capital expenditure for the PS5 regulatory period using a risk-based capital investment planning process. Investment needs were assessed for a range of risk-cost scenarios across the following 18 investment portfolios:

- Sewer growth
- Sewer compliance, reliability and renewals
- Treatment growth (sewerage and recycled water)
- Potable water compliance, reliability and renewals
- Digital metering
- Treatment compliance (sewerage and recycled water)
- Information technology
- Treatment reliability (sewerage and recycled water)
- Potable water growth
- Integrated water management schemes
- Potable water quality
- Recycled water growth
- Sewer backlog
- Distributed treatment (sewerage)
- Motor vehicle fleet
- SCADA and real-time systems
- New technology
- Facilities.

This process was used to balance acceptable risk profiles across all portfolios with overall program costs. The key outcomes from this process are that South East Water has taken on a higher level of risk for:

- sewer, potable water and recycled water growth projects – resulting in an overall \$140 million program reduction, including deferral of \$35.7 million of the total \$67.3 million forecast cost for the Ballarto Road Transfer System Upgrade project into the PS6 regulatory period
- integrated water management scheme projects – overall \$31 million program reduction
- distributed treatment projects (sewerage) – overall \$29 million program reduction.

South East Water has adopted a lower level of risk for its IT portfolio, resulting in an overall \$22 million increase to the program compared to a medium risk scenario. Given that planned IT system replacement expenditures were deferred to release funds for other higher priority projects during the PS4 regulatory period, this lower risk position appears reasonable in the context of the growing need to replace key outdated legacy systems that pose significant reliability and stability risks, as well as constraining enablement of broader system and process improvements. This includes replacement of:

- the Montage asset operations and maintenance works management system - \$10.5 million
- the Trade Waste Information System (TWIS) - \$7 million
- the ICE property-based customer transactions system - \$6.5 million.

Overall, based on South East Water's PS5 submission, further information provided and the outcomes of the 30 November 2022 workshop, there appears to be good support justifying the forecast increased expenditure in the PS5 regulatory period. The documents and information provided show that the justification for its capital expenditure requirements is reasonable and supported by good documentation, strategies, processes, business cases and asset management plans.

#### 4.2.4 Underlying processes for developing the program

South East Water's PS5 submission outlines its underlying asset management and capital planning processes (including risk assessment and prioritisation processes), as further evidenced through additional documentation and papers provided and discussions held as part of the 30 November 2022 workshop. Based on our review of this information, these processes appear to be robust and appropriate. South East Water provided good evidence showing that its various frameworks and processes have been applied in a rigorous manner to develop the PS5 capital expenditure program, with significant executive team and Board oversight.

Asset life cycle management plans, relevant strategies, major project summaries and business cases provided for review were sufficiently detailed and well prepared, providing us with a high level of confidence that the forecast capital expenditure is justified, prudent and appropriate. The proposed programs, projects and associated expenditures are also well linked to a risk-based assessments of needs.

The portfolio investment prioritisation process applied to the overall capital program appropriately balances risk-sharing between South East Water and its customers and between different expenditure portfolios. The approach appears to have been applied in a rigorous manner to refine the final proposed program. For example, as noted above, this

process has led to identification of an approximate \$140 million reduction in potential PS5 period capital expenditure on sewer, potable water and recycled water growth projects by deferring consideration of timing and other uncertainties.

#### 4.2.5 Reliability of cost estimation

The cost estimation approaches used by South East Water to establish project and program budgets appear to be sound and appropriate. Concept P50 cost estimates have been used to develop budget forecasts for each project and program. These estimates incorporate the following components:

- a base cost estimate including design costs and construction costs
- a contingency allowance to account for scope and other uncertainties, consistent with developing P50 estimates
- costs incurred by South East Water in delivering the projects and programs.

The following alternative cost estimation methodologies have been used, matched to the characteristics and complexities of each project and program:

- unit rates tables for low to medium risk projects, periodically revised using historical project costs and independent quantity surveyor advice
- past project costs and first principles estimates and supplier prices for medium complexity projects and programs
- engagement of engineering consultants to prepare cost estimates for medium to high complexity projects
- engagement of construction contractors to prepare cost estimates for more complex projects where construction phase risks are uncertain or are expected to be high/extreme.

The costings adopted also exclude further uncertain cost escalation and project/program contingencies over the PS5 regulatory period, with South East Water bearing this risk rather than passing it on to customers through its project and program costings. A five per cent efficiency saving has also been included in costings for all projects to be delivered using South East Water's new Integrated Planning and Delivery (IPD) model, covering around 40 per cent of the overall capital program expenditure forecast.

These approaches to cost estimation used by South East Water appear to provide a robust and appropriate basis for developing the budget estimates for its capital program for the PS5 regulatory period.

#### 4.2.6 Deliverability of capital program

As outlined in its PS5 submission and supported by further information provided and the discussions held in the 30 November 2022 workshop, South East Water appears to be addressing its capacity to deliver its larger PS5 regulatory period program, including consideration of both organisational and market capacities.

Enhanced delivery arrangements are being implemented through two new core delivery programs:

- the IPD model used to deliver around 40 per cent of South East Water's capital expenditure program for the PS5 regulatory period, which complements existing delivery models
- the Digital Meter rollout program, which includes meter supply and installations.

##### The IPD model

South East Water will continue to manage the installation of pressure sewer systems and connection to the reticulated pressure sewer network available in certain parts of its catchment through its existing Pressure Sewer Installation program. It will also continue to deliver minor works and capitalised maintenance (mainly civil works and mechanical and electrical renewals), which are typically low risk, low design projects with costs less than \$0.5 million, through both the existing Minor Works Program and the Maintenance contracts. It will treat large projects with unique characteristics (such as the Longwarry Water Recycling Plant upgrade project) on a case-by-case basis to allow for a more customised delivery model.

The IPD model involves appointing two separate delivery partners, with each comprising integrated teams comprising planning, design and construction. This provides flexibility to incorporate competitive bidding for some project works between the two separate partners, and allows other project works to be directly allocated where appropriate to ensure adequate certainty on workloads is maintained for both.

South East Water will continue to manage the servicing strategies and master planning that feeds projects into the model. Feasibility and functional design works will then be managed by an Integrated Planning team led by South East Water with the two delivery model partners, including their design and planning consultant teams. The aim is for early partner involvement to enhance the efficiency of the planning phase of projects and the transition to delivery, whilst providing greater transparency of the future program. It is expected that this will significantly improve delivery performance for major projects compared to the PS4 regulatory period.

The IPD model program will transition into combining and replacing the two existing Pipes and Structures and Reliability delivery programs. This will provide a larger and more consistent workload pipeline and, along with a 10-year contract term option (subject to review of performance), sets up attractive programs of work for securing stable longer term delivery partners. Importantly, as part of the transition into the new program, the Reliability program will conclude in June 2024. Projects that have already been awarded to the Pipes and Structures program will also continue to be delivered in 2023-24, as both of these programs wind down and the scope of each program is transitioned into the new IPD model.

The IPD delivery partner procurement process is currently underway and on track to be completed by March 2023, with engagement of the two successful delivery partners expected to be completed in April 2023. Approximately \$120 million of works has been included in the Request for Proposals phase of this procurement to allow design and construct components of the tendered works to commence quickly after engagement. An update provided by South East Water indicates that this tendering process is progressing well.

#### The Digital Meter rollout

The digital procurement strategy that will support the digital metering deployment program covers engagement with the market for the following three separate components:

- supply of digital meters over the six-year rollout period, including integration of vibration sensors to enhance network leak monitoring capability
- provision of field services for installation of the digital meters over the six-year rollout period
- provision of telecommunications and data services to facilitate and manage data transfer functionality for the digital meter fleet.

The tender processes for meter supply and the provision of field installation services will progress from early 2023 in line with receiving initial meter deliveries in July 2023 and mobilising the installation contract arrangements in August 2023.

#### Other

In relation to planned land purchases in the PS5 regulatory period for the South East Regional Biofactory project, South East Water recruited a Property Manager in 2022 to better manage and purchase the land required to support the capital program on a timelier basis. This has been implemented recognising the difficulties experienced in planned land purchases for the Fishermans Bend and the Pakenham Water Recycling Plant Upgrade projects during the PS4 regulatory period.

## Summary

In summary, there appears to be good progress on implementing the 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 South East Water's proposed capital program for the PS5 regulatory period.

### 4.3 Assessment of major projects and major programs

#### 4.3.1 Major projects

South East Water's PS5 capital program includes 10 major projects that are forecast to require \$587.7 million in capital expenditure (approximately 30.5 per cent of the total program) over the PS5 regulatory period. South East Water has outlined these projects in its PS5 submission and described them in more detail in its Top 10 Major Projects 2023-28 Summaries Report.<sup>29</sup> The Summaries Report, other supporting documentation provided and further discussion relating to the major projects during the 30 November 2022 workshop provide evidence that all the proposed 10 major projects are well defined and scoped, with clear justified drivers and linkage to strategies, customer outcomes and engagement.

We requested sample supporting documentation and business cases for the following five major projects:

- Digital Metering – New Connections and Exchanges (\$206 million)
- Hanna Street Capacity Upgrade – Stage 2 (\$70.3 million)
- Mt Martha Water Recycling Plant Augmentation (\$54.8 million)
- South East Regional Biofactory (\$30.2 million)
- Westernport Irrigation Scheme – Stage 1 (\$52.5 million).

The supporting documentation is appropriately detailed, well focused and provides strong and robust justification for the major projects and associated expenditures.

#### Digital Metering

The detailed business case supporting the Digital Metering project provides a comprehensive assessment of alternative options and timing scenarios for installing the meters (between five and 10 years, noting that the proposal included in the PS5 submission is for a six-year rollout). Key benefits to be delivered by this project include the following.

<sup>29</sup> South East Water 2022, Top 10 Major Projects (2023-28) Summaries Report, 30 September



- Improved customer satisfaction through enhanced insight into, and feedback in real time on, water use, resulting in:
  - better customer control over water use
  - potential savings to customers where behavioural change leads to reduced water usage
  - potential savings to customers where customer system leaks are detected and notified for action.
- Better alignment with evolving customer expectations with respect to digital enhancements to meeting their service needs (as being experienced in the provision of other industry services).
- Improved real time visibility for South East Water of conditions within its supply network, enabling identification of flow anomalies and system leaks and hence:
  - savings in non-revenue water losses from South East Water's supply system and consequent operating cost savings in reduced purchases of bulk water supplies from Melbourne Water
  - operating cost savings through more efficient network maintenance and avoidance of costly and potentially more dangerous repairs where issues are not detected early.
- Other operating cost savings including:
  - reduced labour costs involved with manual meter reading
  - more streamlined, efficient and automated billing and accounts processes.

South East Water's projected operating cost savings are likely to increase as the metering program rollout progresses over the PS5 regulatory period and into the first year of the PS6 regulatory period. However, these cost savings will be offset by additional costs relating to:

- telecommunications service provider costs
- information technology network and data analytics platform costs
- additional customer engagement costs to provide education and support behavioural change.

As the rollout progresses through its initial phases, South East Water projects that the additional operating costs associated with implementing the program will exceed the benefits and cost savings by up to \$3 million in the first year of the PS5 regulatory period (2023-24). This additional annual operating cost will, however, progressively reduce to around \$0.6 million in the final year of the PS5 regulatory period (2027-28).

From the first year of the PS6 regulatory period (2028-29), operating expenditure savings from the program are expected to exceed the additional costs, with the net annual operating cost savings increasing from around \$0.5 million in 2028-29 to \$1.7 million by

2032-33. These operating expenditure assumptions are reflected in South East Water's operating expenditure forecasts for the PS5 regulatory period.

It is important to note that the projected benefits and water savings incorporated in South East Water's business case assessment and reflected in the operating expenditure forecasts for the PS5 regulatory period reflect the outcomes of substantial piloting work and associated econometric, behavioural and network water saving trial studies conducted through the PS4 regulatory period. This involved installing around 10,000 digital meters to replace existing mechanical meters in South East Water's supply areas.

The business case and supporting documentation show that when assessed over a 30-year period, implementing the Digital Metering program over a six-year rollout results in an estimated net present value benefit of around \$67 million (7 per cent discount rate), hence eventually easing pressure on customer prices while continuing to deliver the service enhancement benefits to customers outlined above. However, in the shorter term and over the PS5 regulatory period, the increased capital expenditure forecast to rollout the digital meters (an approximate \$130 million uplift in expenditure compared to ongoing meter replacements with mechanical meters as the existing fleet continues to age), along with the higher initial annual operating costs, will result in an approximate increase to the average customer bill of around \$14.60.

South East Water tested the bill impact of the Digital Metering rollout with customers through a willingness to pay assessment. This assessment was tested through South East Water's customer panel. This indicated a willingness by representative customers to pay up to around an additional \$17.50 per year and endorsed the proposed program rollout over a six-year period as proposed.

Based on the approach outlined and the associated documentation and supporting business case reviewed, South East Water's approach to rolling out digital meters over a six-year period (starting in 2023-24) appears to be well-targeted and appropriate for its service areas. As such, we do not recommend any adjustments to forecast capital expenditure for the Digital Metering program rollout. We also note that approval was given by the Victorian Treasurer for South East Water to progress with implementation of this project on 27 January 2023.

#### Other

Similarly, our review of the supporting documentation and information for the other four major projects reviewed indicates that these projects are well-targeted and appropriate, based on sound risk assessment approaches that consider the key drivers and include appropriate cost allowances.

South East Water intends to seek a Federal Government funding contribution to cover up to 50 per cent of the \$52.4 million Westernport Irrigation Scheme – Stage 1 project costs from the National Water Grid Authority program. If successful, this may reduce the capital expenditure required to be funded through customer charges to \$26.2 million. However, South East Water has advised that funding from this source is highly unlikely.

In addition, South East Water has deferred expenditure to the PS6 regulatory period for the following projects:

- Longwarry Water Recycling Plant irrigation connection to the Westernport Irrigation Scheme
- investment in Aquifer Storage and Recovery
- construction of the Clyde Tanks and pipeline to service third pipe recycled water supply growth
- Ballarto Road sewer transfer network and associated Water Recycling Plant inlet works.

Deferring capital expenditure on these projects means that South East Water will take on additional service capacity risks. As these projects are integral to the Westernport Irrigation Scheme and the South East Regional Biofactory projects, reducing the forecast expenditure for either of these to accommodate a low likelihood of securing the National Water Grid Authority grant would further increase this risk profile and would not appear to be appropriate.

### Summary

In summary, the review of supporting documents and detailed background for these projects has helped confirm the appropriateness and robustness of the major projects component of the program. It has also provided good insight into the strong underlying basis for the broader capital program. In particular, the review showed that the projects:

- are appropriate in relation to key drivers and obligations
- have strong linkage to customer service needs and demonstrated customer preferences
- are supported by robust analysis and assessment
- have appropriate cost estimates.

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

### 4.3.2 Major programs

Aside from South East Water's 10 major projects, the remaining 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 life cycle management plans, strategies and related supporting and background documentation provided by South East Water for the following sample major program allocations, which make up around 44.5 per cent of the overall capital program:

- the potable water growth, improvement/compliance, water quality and renewals programs (ten programs - total \$348.5 million)
- the sewer growth, improvement/compliance and renewals programs (eight programs – total \$388.8 million)
- the sewerage treatment improvement/compliance programs (four programs – total \$106.8 million)
- the land purchase program (\$14.2 million).

The sample program plans, strategies and supporting documentation we reviewed are detailed, well focused and provide strong and robust 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.

The planned land purchases included for the PS5 regulatory period all relate to staged preparation for the South East Regional Biofactory project, with land acquisition required ahead of the forecast commencement of construction works on the new treatment plant in the PS6 regulatory period. Four target properties have been identified adjacent to the land currently being pursued for acquisition in the PS4 regulatory period to expand the existing Pakenham treatment plant site. The target land for purchase in the PS5 regulatory period therefore appears to be appropriate given the intended integration of the existing Pakenham treatment operations with the new treatment plant.

Based on our review of the supporting documents and information provided, we consider that these programs have been developed based on strong, detailed analysis and assessment of needs and benefits and 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
- appropriately costed.

#### 4.4 Summary of capital expenditure assessment

Overall, South East Water's capital forecasts as presented in its PS5 submission is well developed. This, together with the additional information reviewed and the outcomes of more detailed discussions during a half day workshop at South East Water's offices on 30 November 2022, provides a high level of confidence that the proposed capital expenditure program is appropriate, prudent and robust, and is deliverable within the PS5 regulatory period.

We considered a potential modification to the \$52.4 million forecast expenditure for the Westernport Irrigation Scheme – Stage 1 project to offset a potential (but unlikely) Federal Government grant. Although South East Water intends to seek up to 50 per cent funding for this project, it has advised that this is an extremely competitive process and that a successful outcome is highly unlikely. Given this, and that South East Water has already taken on additional risk through deferral of a number of related projects into the PS6 regulatory period, we are of the opinion that reducing the forecast project allowance is not appropriate given the overall risk profile.

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

## APPENDIX A: CROSS-INDUSTRY OPERATING EXPENDITURE ISSUES

### Overview

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

This appendix reviews some of those expenditure drivers in more detail, being:

- energy
- IT
- labour.

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

### Energy expenditure

#### Background

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

#### The Schneider report

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

Network engaged Schneider Electric Energy and Sustainability Services (Schneider) to provide forecast electricity prices for the PS5 regulatory period.

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

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

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

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

#### Industry emissions reduction target

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

- prioritise the implementation of actions that avoid or reduce emissions resulting from its operations
- achieve emission reductions efficiently, making full use of the time available to do so.<sup>30</sup>

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

<sup>30</sup> Statement of Obligations (Emission Reduction), Section 3.1.

- 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.

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 (green power), which can involve an additional cost compared to conventional sources
- purchasing offsets, such as Large Generation Certificates.

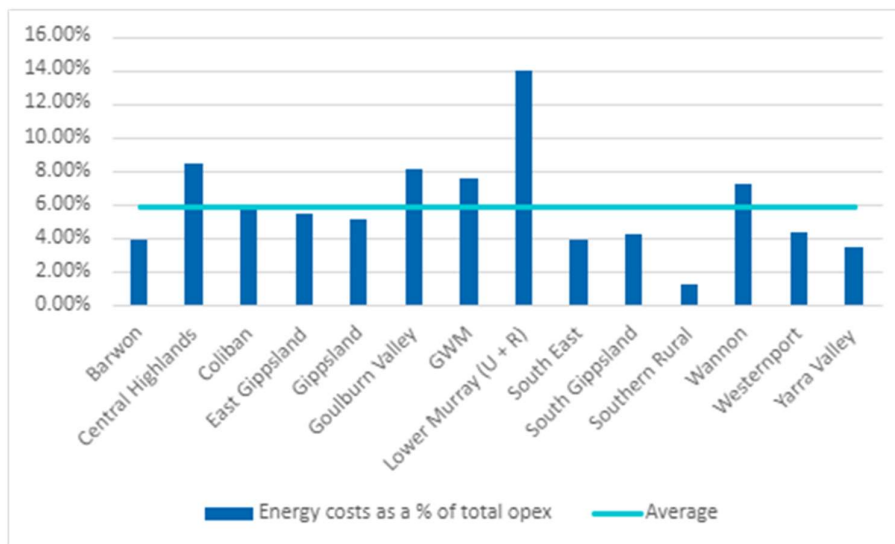
The most appropriate strategy depends on the needs and circumstances of the business, including the feasibility (and cost) of direct action measures such as solar PV.

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

### Cross-sector expenditure trends

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

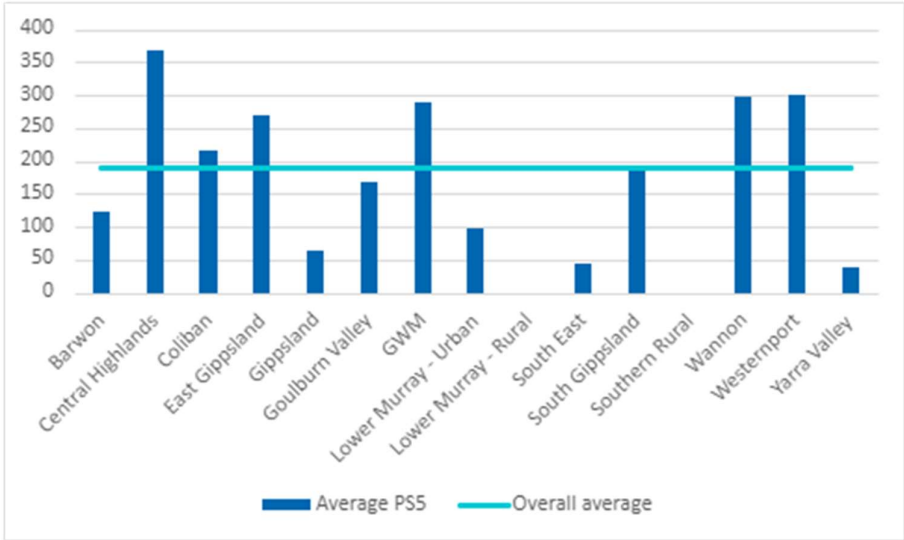
Figure A1: PS5 forecast total energy expenditure as a percentage of total controllable operating expenditure (%)



Source: Victorian water businesses, 2023 Price Review Models.

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

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

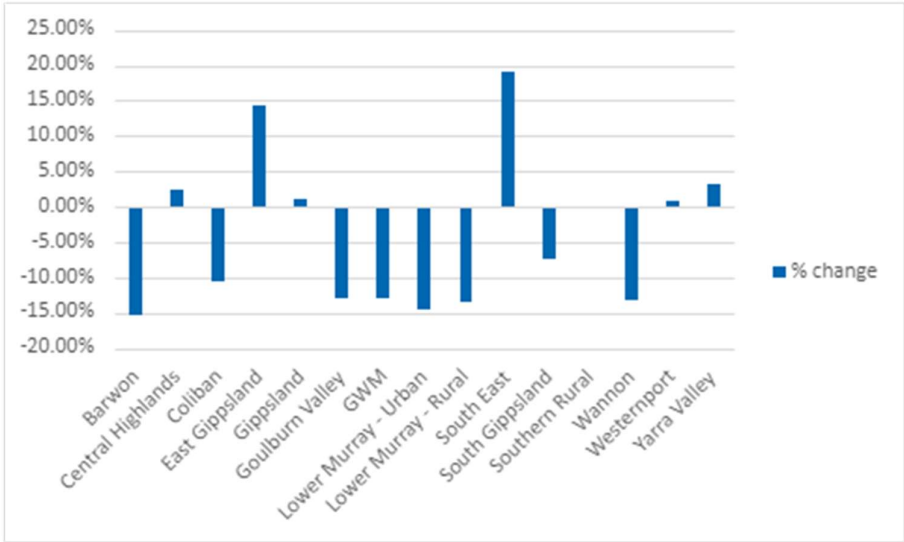


Source: Victorian water businesses, 2023 Price Review Models.

As noted above, energy costs have been increasing over the current PS4 regulatory period. However, most businesses are forecasting a decline in energy costs in the PS5 regulatory period for several reasons, including efficiency initiatives and targets. Figure A3 shows the change between total actual PS4 energy expenditure<sup>31</sup> and proposed PS5 energy expenditure for each business.

<sup>31</sup> Note that the water businesses’ Price Review Models submitted to the Commission for this PS5 review include updated forecasts for financial year 2022-23.

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



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

## IT expenditure

### Background

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

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

### Cloud-based services

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

Several water businesses source key applications from Technology One. In 2021 Technology One announced that it will commence transitioning all on-premises customers to its SaaS platform. Based on its timetable, it will cease providing on-premises support services to customers on 1 October 2024.<sup>32</sup>

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

<sup>32</sup> <https://technologyonecorp.com/saas/pathway-to-saas#> {Accessed 13 December 2022}.

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 framework, which also extends to climate-related risks, pandemics and key supply chain disruptions. DEECA now leads the Water Sector Resilience Network, which aims to collaborate on matters relating to resilience by sharing information and experiences
- implementation of the recommendations of the Victorian Auditor-General's Office's performance audit of Security of Water Infrastructure Control Systems.<sup>33</sup>

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

### Other IT-related expenditure

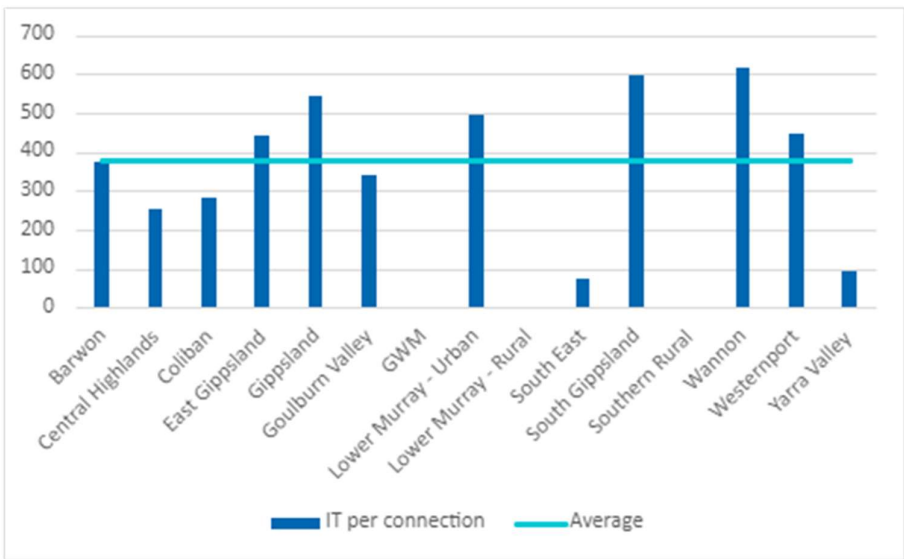
Depending on the functionality and maturity of each water business's current IT-architecture, other business-specific expenditure may be incurred in reviewing and upgrading this capability.

<sup>33</sup> Victorian Auditor-General's Office 2019, *Security of Water Infrastructure Control Systems*, 9 May.

### 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.

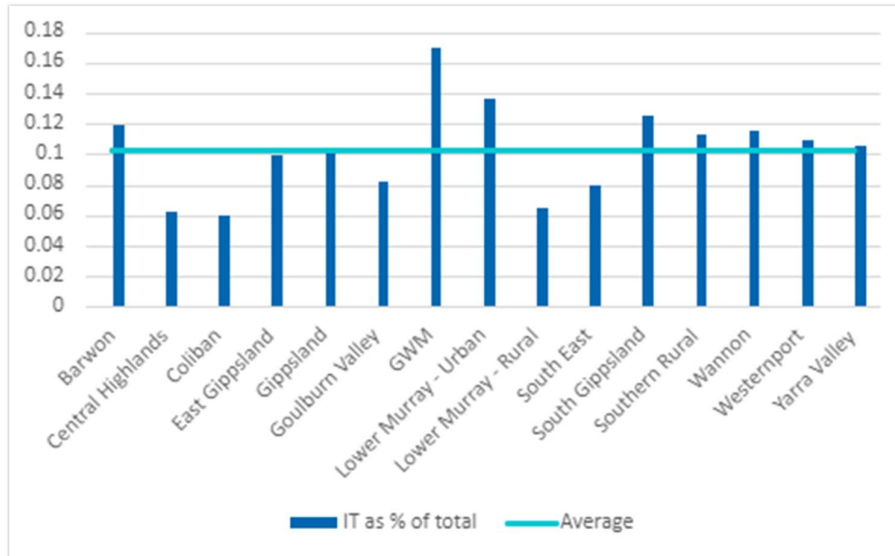
Figure A4: PS5 forecast: ICT operating expenditure per water connections (\$ per average number of water connections, 1 January 2023)



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)<sup>34</sup> 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

<sup>34</sup> Full-time equivalent employees.



reside in-house and/or decisions to outsource certain activities. The optimal balance between internal and external labour will be a management decision for the business.

### Remuneration

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

Some common themes have emerged for labour costs over the PS4 regulatory period.

- First, Victorian public sector entities must ensure that executive remuneration complies with any determinations and guidelines issued by the Victorian Independent Remuneration Tribunal. They must also continue to comply with the requirements of the Public Entity Executive Remuneration Policy (PEER).<sup>35</sup> 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

<sup>35</sup> Refer: <https://vpssc.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.<sup>36</sup> The forecasts underpinning the 2018-19 State Budget was for wages to grow by 2.5 per cent in 2018-19 and 2.75 per cent in 2019-20.<sup>37</sup>

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

The most recent 2022-23 Victorian State Budget forecast was for an increase in the WPI of 2.75 per cent in 2022-23. It is then expected to increase further to 3.00 per cent per year to 2025-26 as the economy expands and labour market conditions remain tight.<sup>38</sup> 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.<sup>39</sup>

This presents a mixed picture of wages growth over the current PS4 regulatory period, which was significantly impacted by the COVID-19 pandemic. The current outlook is more bullish, driven largely by the tight labour market and high inflation, with spare labour market capacity at record lows.<sup>40</sup> In its November 2022 Statement on Monetary Policy, the RBA also observed that job mobility is higher than the years preceding the pandemic and is now around the levels observed prior to the Global Financial Crisis. It also noted the considerable uncertainty associated with the current economic outlook.

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

<sup>36</sup> State of Victoria 2018, Strategy and Outlook 2018-19 Budget Paper No. 2, Department of Treasury and Finance, p.23.

<sup>37</sup> State of Victoria 2018, Strategy and Outlook 2018-19 Budget Paper No. 2, Department of Treasury and Finance, p.22.

<sup>38</sup> State of Victoria 2022, Strategy and Outlook 2022-23 Budget Paper No. 2, Department of Treasury and Finance, p.32.

<sup>39</sup> Reserve Bank of Australia 2022, Statement on Monetary Policy, November.

<sup>40</sup> 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.

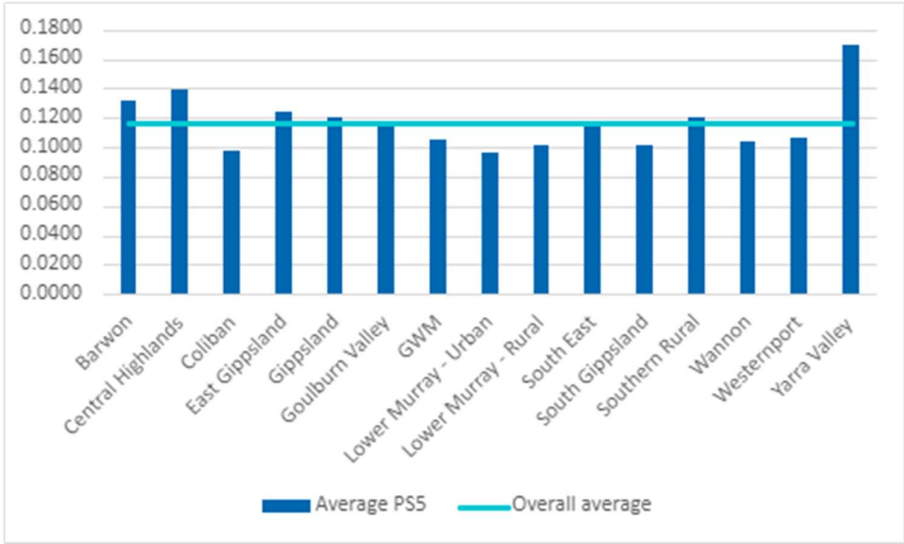
The impact of this will therefore vary between businesses and potentially within businesses given employees may be subject to different types of arrangements.

### 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.

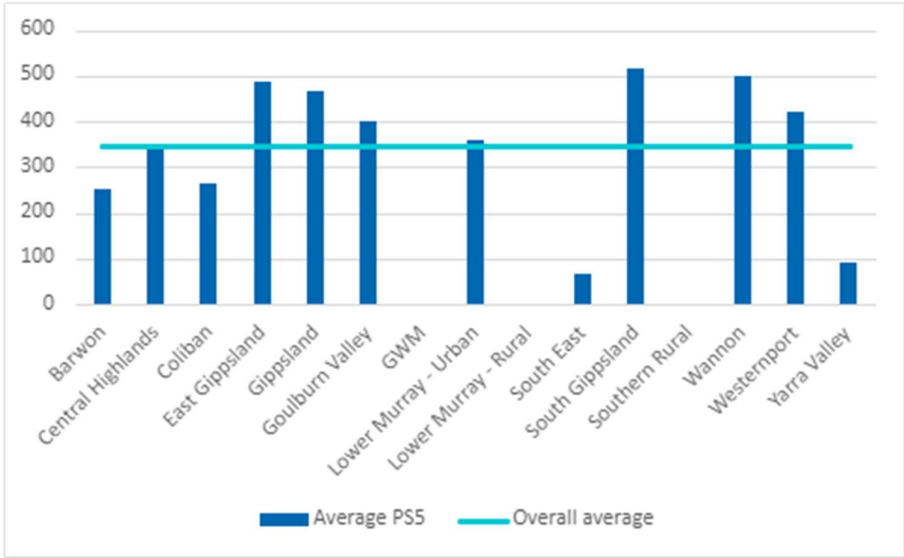
Figure A6: PS5 forecast average unit cost per FTE (\$ million per FTE, 1 January 2023)



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.

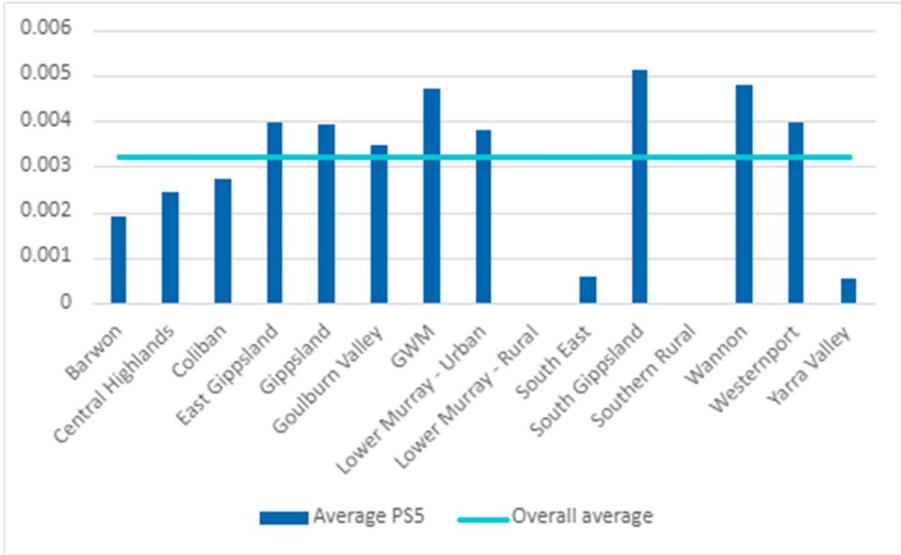
Figure A7: PS5 forecast: Average labour cost per water connection (\$ per average number of water connections, 1 January 2023)



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).

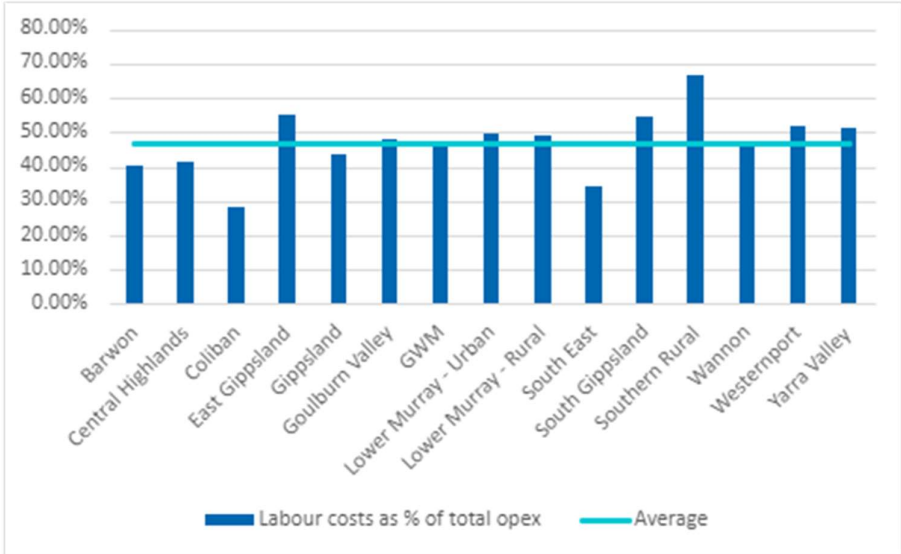
Figure A8: PS5 forecast average number of FTEs per water connection



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 SOUTH EAST WATER'S FORECAST CAPITAL EXPENDITURE

- South East Water – Regulatory Period (2023-28) Delivery of Capital Works – Procurement (18 November 2022)
- South East Water – Capital Delivery Model PS23 and PS28, Board Circular Resolution (22 June 2022)
- South East Water - Project Cost Estimation – Concept Stage (May 2022)
- South East Water - Top 10 Major Projects (2023-28) Summaries Report (30 September 2022)
- Digital Meters Business Case for South East Water (Frontier Economics, 4 November 2022)
- Digital Meter Trials to Promote Water Saving Behaviour, Review and Combined Analysis – BehaviourWorks Australia, Monash University (6 May 2022)
- 2022 Econometric Modelling of South East Water's Residential Demand Using Digital Meters – Dr Vasilis Sarafidis and Dr Jan Ditzen (22 June 2022)
- South East Water Calculation of Non Revenue Water Study, Final Report Document No. 1, Jacobs (29 April 2022)
- South East Water - Pricing Submission 2023 Capital Program Template – Information Technology (September 2022)
- South East Water – Digital Strategy 2022-2028, Version 1.1 (23 February 2022)
- South East Water – Corporate Asset Management Plan 2023-28 Regulatory Period (30 September 2022)
- South East Water – Mornington Peninsula Treatment and Resource Recovery Asset Life Cycle Management Plan (AM2928) (23 September 2022)
- South East Water – Western Port Treatment and Resource Recovery Asset Life Cycle Management Plan (AM2929) (23 September 2022)
- South East Water – Resource Recovery Mt Martha WRP Program, AM2690 Asset Management Plan Program Roadmap (27 April 2022)
- South East Water – Resource Recovery Lang Lang and Koo Wee Rup WRP Program, AM2707 Program Roadmap (27 April 2022)
- South East Water – Integrated Water Management Program, AM2896 Program Roadmap (27 April 2022)
- South East Water – Drinking Water Network Asset Life Cycle Management Plan (AM2703) Part 1 - Growth (September 2022)
- South East Water – Sewage Collection Asset Life Cycle Management Plan (AM2704) Part 1 - Growth Activity Plan (September 2022)
- South East Water – Water and Sewer Network Reliability Master Plan for the 2023-28 Regulatory Period, AM2703 Drinking Water Supply Asset Life Cycle Management Plan Part 2 Reliability (September 2022)

- South East Water – Water and Sewer Network Reliability Master Plan for the 2023-28 Regulatory Period, AM2704 Sewage Collection Asset Life Cycle Management Plan Part 2 Reliability (September 2022)
- South East Water – Asset Management Plan: Information Technology, AM2739 FINAL (October 2022)