

East Gippsland Water 2018 Price Submission



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REV NO	COMMENTS	ISSUE DATE	REVIEWED BY
1	Preliminary draft	4 September 2017	Executive team
2	Draft	12 September 2017	Board and customer committee
3	Final draft	22 September 2017	Key executive
	(board, customer committee and internal review amendments)		
4	Final issue	28 September 2017	

Key messages

At a glance:

- Five-year regulatory period.
- No increase to average customer bills (beyond CPI).
- \$62 million capital works proposed over five years.
- \$98 million operating expenditure over five years.
- Five key outcomes that customers value.
- Efficiency measures deliver a reduction in operating costs from the baseline year.
- 'Individual price cap' form of price control to replace 'weighted average price cap' in the 2018-23 regulatory period.
- A prudent and efficient price submission that provides the best value for customers.
- Standard (high) PREMO rating.

The foundations of this plan, for a five-year regulatory period, are built on an understanding of our customers' needs and values. Our engagement program for this price submission began in November 2015 and gained comprehensive input from more than 2267 customers (about 10% of our customer base) through surveys and face-to-face conversations.

Key messages from customers, regulators and stakeholders, along with consideration of our current risk profile, informed strategies developed by our staff to guide how we do business over the next five years.

These strategies and further customer feedback resulted in five key outcomes our customers will receive during the 2018-2023 period:

- 1. Current levels of water and sewerage services maintained.
- 2. Safe, high quality drinking water supplies delivered.
- 3. No increase to average customer bills (beyond CPI).
- 4. Commitment to environmental sustainability.
- 5. Enhanced liveability and resilience in our region.

The measures proposed to achieve these outcomes will require an investment of \$62 million in capital works over the regulatory period. This is an increase of \$12 million when compared with the 2013-2018 period (see Chapter 8).

Operating expenditure of \$19.6 million per annum is forecast during the 2018-2023 regulatory period. This is a reduction from \$20 million during the 2016/17 baseline year and will be achieved through a comprehensive operational efficiency program that will deliver a cost efficiency improvement rate of CPI minus 1.15% per annum (see Chapter 7).

This cost reduction will ensure that average prices for residential customers will be maintained at 2017/18 levels in real terms. A summary of the impact of this submission on our average customers' bills is presented below in Table 1:

	2017/18*	2018/19	2019/20	2020/21	2021/22	2022/23
Residential	\$1,175	\$1,175	\$1,175	\$1,175	\$1,175	\$1,175
Tenant	\$298	\$313	\$313	\$313	\$313	\$313
Non-residential	\$3,233	\$3,209	\$3,209	\$3,209	\$3,209	\$3,209
Vacant Land	\$442	\$442	\$442	\$442	\$442	\$442

Table 1: Forecast average bill impacts excluding CPI per annum

*Government Water Rebate of \$28 for residential owner occupier and tenant customers deducted.

We propose an 'individual price cap' form of price control in the 2018-23 regulatory period to replace a 'weighted average price cap'. This will provide customers with greater price certainty and is easier to administer and explain.

Using guidance provided by the Essential Services Commission, we have assessed our overall submission to be 'standard' (high) under the PREMO incentive mechanism, with an aggregated score of 11.25. This score puts us at the top of the standard category.



East Gippsland Water's self assessed PREMO rating is 11.25 = Standard (High)

Figure 1: PREMO self-assessment overall outcome summary

Our customers, board, managing director, executive team, subject matter experts and other staff across our business have been central to the development of this submission. At the highest level, our board has attested that our submission meets the Essential Services Commission's requirements and addresses all elements of PREMO.

The submission has also been endorsed by our customer committee.

Board attestation

As at 19 September 2017 the directors of East Gippsland Water, having made such reasonable inquires of management as we considered necessary (or having satisfied ourselves that we have no query), attest that, to the best of our knowledge, for the purpose of proposing prices for the Essential Services Commission's 2018 Price Submission:

- Information and documentation provided in the price submission and relied upon to support East Gippsland Water's price submission is reasonably based, complete and accurate in all material respects.
- Financial and demand forecasts are the business's best estimates and supporting information is available to justify the assumptions and methodologies used.
- The price submission satisfies the requirements of the 2018 Water Price Review Guidance paper issued by the Essential Services Commission in all material respects.

Joanne Booth

CHAIRPERSON

EAST GIPPSLAND WATER

Message from the East Gippsland Water Customer Committee

We commend East Gippsland Water's (EGW) 2018 price submission as an impressive and comprehensive document.

We would like to thank the board for their belief in and support of this committee through EGW's entire process of developing the submission.

In good part, the outcomes of our contribution to this submission are due to Rob Carlesso's leadership philosophy and his approach and commitment to the process we used.

We thank EGW's executive, technical, administrative and management staff for their helpful contributions to our efforts. Every single staff member we interacted with was overwhelmingly enthusiastic and positive, whether at our early evening meetings or 'on the ground' in our diverse communities. Their participation is a reflection of what we believe is a healthy organisational culture. In addition, the feedback we've received from them is that they have been happy with our participation and that they valued our input.

As one committee member said, "if you put good stuff in, you get good stuff out, but only if the machinery in the middle is good". At EGW that machinery certainly is good. Our newest member found it a joy "to come in here and find out that there was genuine community consultation".

Over the period of our involvement we worked quite mindfully along the IAP2's public participation spectrum. We were initially informed and consulted with, then increasingly involved in the design and implementation of 'interventions'. We collaborated in developing shared understanding of customer feedback and redesigning actions for further clarification from customers. Ultimately, we were given responsibility (empowered) by the board to develop the Guaranteed Service Levels corresponding to customers' feedback.

It has been a good process all round and a real journey for the customer committee. We've found this an enjoyable and valuable process and look forward to our continued involvement.

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Dominic Zappia

CHAIRPERSON

EAST GIPPSLAND WATER CUSTOMER COMMITTEE

1. Management

At a glance:

- The price submission was informed by new strategies developed for all areas of our business.
- The board, senior management, customer committee and wider customer base all played a significant role in developing the submission.
- The submission has been approved by the board and endorsed by the customer committee.
- All operating expenditure above the 2016/17 baseline was validated by executive reviews.
- All capital expenditure proposals were subjected to a robust review and prioritisation process.
- Key outcomes and service levels were developed through rigorous and wide-reaching customer engagement.
- Our cost efficiency improvement rate demonstrates our prudent and efficient management.
- Our PREMO self-assessed rating for management = advanced (2.9/4).

1.1 Price submission development process

Our 2018 price submission was developed with input from our board¹, senior management, subject matter experts (internal and external), our customer committee, and our broader customer base.

This extensive involvement gives us confidence this price submission provides value for money to customers, while delivering key outcomes and maintaining our relatively high service levels.

In mid-2015, our executive team tasked senior management with developing new strategies for all areas of our business operation. These became key references to inform our 2018 price submission.

The strategies followed a standard template to ensure customer, regulatory, strategic and operational risks and key assumptions were identified and addressed².

The reference strategies were informed by regulatory guidance such as the Statement of Obligations and advice from the Department of Health and Human Services and Environment Protection Authority. They were also informed by extensive community engagement and incorporate initiatives and action plans to deliver agreed outcomes valued by customers. The strategies were then used to build the operating expenditure forecast for the regulatory period, with executive level review to further validate recommendations³ (see Chapter 7).

Our capital expenditure proposals have involved detailed justification and have been subject to rigorous review and prioritisation including risk-based workshops (see Chapter 8).

Figure 2 shows a summary of the price submission development process. This process was iterative, with feedback from the community, executive, board, regulators and results of key technical reports and business cases incorporated along the way.

Further detail relating to the price submission development process can be provided on request.



Figure 2: Overview of our price submission development process

1.2 PREMO summary – Management

Workshops involving key staff were held in August/September 2017 to self-assess our PREMO rating for 'management'⁴. This provided a further level of scrutiny to our price submission.

For the management component of PREMO, we assessed ourselves to be advanced (2.9/4), as summarised in Table 2.

ASPECT	SCORE	COMMENT
To what extent has the business demonstrated how its proposed prices	3	We have committed to an average efficiency saving of CPI minus 1.15% on controllable costs per annum.
reflect only prudent and efficient expenditure?		We held panel and workshop reviews on operating expenditure ³ . Successive reviews by our executive and board assessed and validated key projects (Chapter 8).
		We have prudently programmed uncertain works by extending some outside the regulatory period and smoothed high cost operational programs such as desludging ³ .
To what extent has the business justified its commitment to cost	3	We have committed to an extensive operational efficiency program of CPI minus 1.15% annually (on average) on controllable costs.
efficiency or productivity improvements?		We have absorbed new costs such as the increase to the environmental contribution and forecast real increases in electricity costs while continuing to maintain our high standard of service (see Chapter 7).
To what extent has senior management, including the board, demonstrated ownership and commitment to the proposals in its submission?	3.25	Ownership of this price submission has been taken across our entire business, led by senior management from the time of initial strategy development and engagement two years ago, to now. The board had a standing agenda item to ensure it was informed through all stages and was able to make informed decisions to facilitate the plan's development ¹ .

Table 2: Management PREMO assessment

ASPECT	SCORE	COMMENT
		This has culminated in the board making its attestation in support of this submission.
To what extent has the business justified or provided assurance about the quality of the submission, including the supporting information on forecast costs or projects?	2.5	This submission is the product of collaboration with independent consultants and the experience of our staff. Forecasts and costs have been documented in reference strategies and are based on sources such as the latest market information, VicWater electricity price review, Victoria in Future and demand trends over recent years. The top ten infrastructure projects are based on P50 estimates (see Chapter 8) and changes above business as usual costs have been subject to full review by senior management ³ .
To what extent has the business provided evidence that there is senior level ownership and commitment to its submission and its outcomes?	2.75	The board and executive have full ownership of this price submission. This is evidenced by the extensive reference documents supporting the included content. Our board has attested this price submission meets ESC requirements.
Overall average score	2.9	Advanced

Key references relating to this chapter:

- 1. Summary of EGW board and customer committee involvement in price submission DOC/17/41282
- 2. Reference strategy development flowchart DOC/16/6922
- 3. Operational expenditure review meetings summary DOC/17/41568
- 4. PREMO self-assessment workshops DOC/17/36566

At a glance:

- East Gippsland Water has assessed and managed key risks to deliver a price submission that is both prudent and efficient.
- In allocating risk, we have considered the party in the best position to manage the risk.
- Where the scope, timing or cost of an initiative or project is uncertain, we deferred projects towards the end, or after, the regulatory period.
- We are comfortable with the overall risk profile of the price submission because of our robust strategic planning process and contingent management approach.
- PREMO self-assessed rating for risk = advanced (2.75/4).

In developing this price submission, we adopted considered forecasts about our future operating environment and prioritised activities to address key business risks to ensure we meet the expectations of our customers, regulators and the Victorian Government.

This chapter provides a high-level summary of how we identified, quantified, allocated and managed key risks to deliver a cost-effective pricing proposal for the 2018-2023 period.

2.1 Key risks and allocation summary

Relevant staff participated in a workshop to identify and assess material risks associated with delivering the agreed outcomes in this price submission to our customers¹. The key risks and their allocations are summarised in the following tables.

ELECTRICITY COSTS	
Assumptions	We forecast electricity prices will increase by 24% in the first year of the pricing submission and 3% per year thereafter. This represents an overall real increase of about \$1 million over the five-year period in operating costs for our business.
Controls	Used VicWater 'Supply Chain Excellence Program - 5 Year Electricity Price Forecast' to forecast electricity cost impacts to our business ² .
	Plan to participate in joint procurement for retail electricity supplies through the Gippsland Regional Water Alliance, with a contract commencement date of 1 July 2018.
	Activities to deliver energy use efficiencies have been justified and prioritised based on financial return ³ . By focusing on reducing electricity usage through efficiency and behind-the-meter renewables rather than offsets, we are reducing our dependence on the retail market and future price fluctuations.
Risk	Despite the controls outlined above, the risk of electricity prices increasing materially beyond our forecast was still assessed as high using our corporate risk matrix, due to the high level of uncertainty associated with the market.
Risk allocation	We have applied the scenario for electricity price forecasts recommended by VicWater, which is considered a 'realistic' or 'mid-point' assumption. We have not adopted the more conservative (high) forecast in the formulation of this price submission.
	We have decided to bear the financial risk associated with adopting this forecast as there are measures we can take to reduce the cost impact of electricity price rises on our business. These include controlling our electricity usage, investing in energy efficient plant and equipment, and pursuing joint procurement opportunities.

Table 3: Risk summary – electricity costs

Table 4: Risl	summary –	demand
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DEMAND	
Assumptions	We have assumed 1.45% declining to 1.28% growth rate for residential customers, and 0.53% growth rate for non-residential customers (see Chapter 11).
	We have assumed 146 kilolitres per annum average usage for residential customers and 580 kilolitres per annum average usage for non-residential customers (see Chapter 11).
Controls	Residential customer growth rates are based on Victorian in Future 2016 estimates for our region.
	Non-residential growth rates are based on the average actual growth rates over the past four years.
	Residential and non-residential usage is based on the average of the past four years, as calculated from our billing data. In both cases, the forecast is higher than the forecast approved for the 2013-18 regulatory period and represents an improved understanding of demand profiles.
Risk	Taking into consideration the controls outlined above, the risk that demand forecasts have not been adequately estimated has been rated high under our corporate risk matrix.
Risk allocation	Significant review and comparison of various usage and demand forecasts have been undertaken to ensure we have not applied an overly conservative approach to demand forecasting in the formulation of this price submission.
	The Victoria in Future growth forecast is higher than the alternative East Gippsland Shire Council commissioned forecast. By adopting the Victoria in Future forecast, the risk of revenue over-recovery is lowered.
	The higher demand forecast compared to the 2013-18 regulatory period also results in the risk of revenue over-recovery being lower. Along with the growth forecast, we will bear a greater proportion of revenue risk. We are best placed to manage this risk through the deferral of augmentation projects triggered by growth and production cost savings in the event that customer demand is lower than forecast.

Table 5: Risk summary – ageing infrastructure

AGEING INFRASTRUCTURE		
Assumptions	We have forecast an approximately 50% increase in renewals expenditure to replace or upgrade ageing infrastructure in 2018-23 when compared with the current regulatory period (see Chapter 8).	
Controls	Robust and iterative process used to develop the renewals program, considering asset age, type, condition, expected life and criticality (see Chapter 8).	
	The renewals profile generated was validated and refined through a series of workshops (see Chapter 8).	
Risk	Taking into consideration the controls outlined above, the risk that our renewals budget included in this submission has not been adequately forecast has been rated moderate under our corporate risk matrix.	
Risk allocation	Significant refinement of the renewals program has been undertaken to ensure we have not applied an overly conservative approach to asset renewals in the formulation of this price submission.	
	The proposed renewals investment in 2018-2023 is well below levels of depreciation which demonstrates our ongoing commitment to getting the most out of our assets and replacing them only when there is a real need ⁴ .	
	Should the investment in renewals prove to be insufficient, the risk of being unable to maintain service levels will only be moderate within the five year regulatory period. The deterioration in performance of ageing assets tends to be over decades, rather than years, particularly given the planned level of expenditure. Adjustments in renewals expenditure can be made in subsequent regulatory periods should this risk arise.	

Table 6: Risk summary – capital program development and delivery

CAPITAL PROGRAM DEVELOPMENT AND DELIVERY		
Assumptions	sumptions Proposed \$62 million five-year capital expenditure for the 2018-23 regulatory period.	
	Uncertain projects have been programmed for early in the 2023 regulatory period to allow for further refinement of forecasts, options and cost, and to take advantage of innovations and new technologies that may arise during this regulatory period.	
Controls	P50 cost estimates have been prepared for each of the 'top ten' capital projects (see Chapter 8). Robust strategic planning process with multiple reviews (refer to Chapter 1). Robust risk-based project prioritisation process (refer to Chapter 8).	

CAPITAL PROGRAM DEVELOPMENT AND DELIVERY		
	Engagement of experienced staff and consultants with a history of delivering our capital program (refer to Chapter 8).	
	Our access to significant engineering design, project management and superintendent resources through our contract with the large international consulting firm Stantec.	
	Flexibility to reprioritise projects during the regulatory period in the first instance, while maintaining expenditure within the overall program budget.	
Risk	Taking into consideration the controls outlined above, the risk that capital expenditure will increase materially beyond our forecast due to inaccurate capital estimates or project prioritisation was assessed as moderate using our corporate risk matrix.	
Risk allocation	Rigorous justification, significant review processes and prioritisation of the infrastructure investment program have been undertaken to ensure a prudent and efficient program for this price submission.	
	Deferral of uncertain projects to the 2023 regulatory period and beyond, coupled with contingent management strategies, reduces the risk of over-recovering revenue during the 2018-23 regulatory period.	

Table 7: Risk summary – operating expenditure

OPERATING EXPENDITURE				
Assumptions	Proposed \$98 million operating expenditure over five years of the 2018 regulatory period. Controllable cost efficiencies for the pricing submission period of CPI minus 1.15% per annum (on average) (see Chapter 7).			
Controls	A large proportion of the operating expenditure forecast is commensurate with historic expenditure. Costs forecast to vary materially from historic trends have been subject to rigorous assessment and review (see Chapter 1).			
	Operational expenditure requirements were identified through robust strategy planning and linked to our 'live' strategic and operational risk registers ^{5 6} , which form a component of our risk management framework that accords with AS/NZS ISO 31000:2009 ⁷ .			
	Participating in joint procurement with the VicWater buying group and the Gippsland Regional Water Alliance.			
	Comprehensive operational efficiency program to achieve efficiencies for the regulatory period of CPI minus 1.15% per annum (on average) (see Chapter 7).			
Risk	Taking into consideration the controls outlined above, the risk that operational forecasts have not been adequately estimated has been rated high under our corporate risk matrix.			
Risk allocation	Significant review and prioritisation of the proposed operating program has been undertaken to ensure spending is prudent and efficient (Chapter 7).			
	Expenditure on significant activities, such as wastewater lagoon desludging, has been smoothed over several regulatory periods, taking a balanced approach to operational performance, regulatory compliance, environmental and financial risk. This approach reduces the risk of over-recovering revenue where we have the greater capacity to manage risk.			

In addition to those highlighted in the tables above, the following risk allocations are relevant to this price submission:

- Introducing an individual price cap model for the 2018 regulatory period means we are bearing the risk of revenue shortfall and not passing it onto our customers (see Chapter 12).
- Continuing with guaranteed service levels means we are bearing financial and reputational risks as an incentive to providing the services valued most by our customers (see Chapter 5).
- We have maintained our present water tariff mix of 40% fixed and 60% variable for average residential customers, which balances our revenue risk and the cost burden on rental customers, with the ability for customers to have greater control over water bills (see Chapter 13).

2.2 PREMO summary – Risk

For the risk component of PREMO, we have assessed ourselves to be advanced (2.75/4) in relation to risk, as summarised in Table 8 below.

ASPECT	SCORE	COMMENT
To what extent has the business demonstrated a robust process for identifying risk and how it has decided who should bear these risks?	3	Our AS/NZS ISO 31000:2009 risk management framework is the basis for business decision making. It underpins the justification and prioritisation of projects, programs and initiatives that make up the many reference strategies that build the price submission.
		All top 10 projects had P50 estimates completed to ensure a robust forecast.
		Further to this, an overall risk assessment of our price submission was completed in August 2017. Section 2.1 provides further evidence of how risk allocation has been considered in the development of the price submission.
To what extent does the proposed GSL scheme provide incentives for the business to be accountable for the quality of services delivered and provide incentives to deliver valued services efficiently?	2.5	The customer committee was empowered to define and set the incentives for guaranteed service levels (GSLs) in the price submission (see Chapter 5). The committee considered and linked GSLs to the outcomes valued by our wider customer base. Both financial and reputational incentives have been embraced by the committee to ensure we are accountable for delivering those service outcomes included in the price submission.
Overall Average Score	2.75	Advanced

Table 8: Risk PREMO assessment

Key references relating to this chapter:

- 1. Price submission risk assessment DOC/17/38652
- VicWater Supply Chain Excellence Program 5 Year Electricity Price Forecast DOC/17/40993
- 3. Energy Management Reference Strategy DOC/16/36735
- 4. Asset Renewals Reference Strategy DOC/16/14600[v2]
- 5. EGW Strategic Risk Register 2017-18 DOC/17/11858
- 6. EGW Operational Risk Register DOC/17/2922
- 7. EGW Risk Management Manual v4 January 2017 D0C/09/7447[v5]

3. Engagement

At a glance:

- East Gippsland Water undertook its most in-depth customer engagement program todate to inform this price submission.
- Customers want us to keep prices static, while providing the same level of service.
- Community engagement identified services valued by customers and informed the five key outcomes of this submission.
- Low cost, big impact community-focussed initiatives form part of the agreed outcomes.
- PREMO self-assessed rating for engagement = advanced (3/4).

3.1 Overview

East Gippsland Water undertook its most in-depth and broad customer engagement program todate in the lead up to this price submission.

Our engagement was conducted from November 2015 to September 2017 and activities were chosen to maximise the potential for meaningful engagement with a broad range of customers, representative of our region.

The International Association for Public Participation (IAP2) framework was used to help develop our engagement program, with the aim of identifying customer needs, preferences and priorities. Once identified, these preferences and priorities were used to establish the outcomes to be delivered during the regulatory period. Engagement ranged from 'inform' to 'empower' and mostly at the 'involve' to 'collaborate' levels on the IAP2 spectrum¹.

Our customer committee², comprising seven community members, also had an instrumental role in the development and implementation of the community engagement program. Members helped target and draft questions for all related surveys and also interviewed individual customers and customer groups. The committee was also empowered by the board³ to determine guaranteed service levels and the associated financial and reputational incentives for the price submission⁴⁵.

Two independent specialist survey and research companies, InSync Surveys and Redhanded, assisted with the development of surveys and reporting of results and conclusions.

A variety of engagement tools were used to maximise opportunities for customers to engage. This also ensured feedback was received from a wide audience broadly representative of the community we service.

Methods used during the price submission engagement included⁶:

- Hard copy and online surveys.
- East Gippsland Water website dedicated pages for the price submission.
- Face-to-face conversations.
- Emails to customers.
- Surveying customers at major community events across East Gippsland, such as community markets, school fairs and shows promoted as 'water cafes'.

- Utilising neighbourhood and community houses as drop-in points to complete surveys or comment cards, with our staff hosting 'house sessions' to answer questions.
- Promoting engagement activities using media releases, Facebook, Twitter, the quarterly On Tap newsletter sent to all account holders, and our monthly 'In the Flow' page in the East Gippsland News newspaper (covering the whole region).
- Fact sheets to help inform customers in relation to the price submission process and to provide feedback on their identified preferences and willingness to pay.

Our price submission engagement program is outlined in sequence from November 2015 to September 2017 below⁷:

- Customer committee identified key themes for 2018-23 (using results from presubmission engagement)⁸.
- Consultants InSync Surveys, with the assistance of the customer committee, tested these themes through qualitative conversations with 63 participants⁹.
- Once themes were confirmed, InSync Surveys conducted quantitative surveys with customers (820 completed, 101 partially completed) to validate the importance of the themes to customers, identify any other themes of importance, and to identify the services most valued by customers relating to the themes¹⁰.
- Redhanded was commissioned to present a range of service level choices and the
 associated impact on customer bills to gauge customer preferences and willingness to
 pay for differing outcomes. This engagement approach enabled respondents to make a
 range of choices associated with the identified themes, evaluate the overall impact on
 their bill, and revisit their choices until they were satisfied with the service level and cost
 trade-off before lodging their survey response¹¹.
- The customer committee made service and price recommendations based on the survey feedback received. Recommendations were advertised for further customer comment/confirmation¹².
- The final round of engagement invited customers to confirm their support for the preliminary price submission outcomes. It involved wide circulation of easy-to-read information pamphlets detailing specific conclusions from the engagement program, customer preferences/outputs, guaranteed service levels, and the impact on customer bills¹³. This validated the agreed content of the price submission.

3.2 Matters covered by customer engagement

The scope of engagement and survey questions were determined in consultation with our customer committee, InSync Surveys and Redhanded.

In addition to our price submission-specific engagement program, we also considered:

- Feedback on our draft 2017 Urban Water Strategy¹⁴.
- Results of our annual customer satisfaction survey, conducted in 2015 and 2016, each with 400 customers¹⁵¹⁶.
- Complaints and issues raised by our customers over the previous three years¹⁷.
- Results of the Water Services Association Australia Customer Perceptions Survey in 2015¹⁸.

This helped the customer committee and our staff determine the following themes to be explored further with our customers, in addition to their thoughts on prices and service levels:

- **East Gippsland Water's customer financial assistance program** Customer awareness of the program and whether the level of assistance should be reduced or increased for customers in genuine financial hardship.
- Environmental sustainability How much effort we should channel into this area and those aspects most valued by customers.
- Service levels How customers want to receive their bills; methods to notify them of leaks and interruptions to water and sewerage services; how to change account details; and the provision of billing information including reminder and final notices.
- Liveability Ideas about how East Gippsland Water can contribute in this area and those aspects most valued by customers.

3.3 Engagement results

Over the course of our two-year engagement program we visited many towns in our region to hear directly from our customers, including; Bairnsdale, Bruthen, Lakes Entrance, Metung, Paynesville, Buchan, Omeo, Swifts Creek, Bemm River, Orbost, Mallacoota and Cann River.

This resulted in 1467 surveys being completed⁷, in addition to the 800 customers who took part in our customer satisfaction surveys in 2015 and 2016.

Most of the surveys were completed following face-to-face conversations with East Gippsland Water staff at our community 'water cafés', which were held at markets, school fairs and neighbourhood/community houses⁷.

Our engagement validated the four themes identified by the customer committee (see Section 3.2 above) and also provided important insight into our customers' views and values:

- From the beginning, customers delivered a clear message they want us to keep prices as they are, while delivering the same high-level service they currently receive¹⁵.
- Customers were concerned a reduction in service could affect water quality⁹.
- Most customers indicated strong support to maintain the current level of assistance for those experiencing financial difficulties¹⁰.
- Most customers indicated we should support liveability in some way¹⁰.
- Most customers agreed we should be an environmental leader in our area¹⁰.
- Most customers agreed we should reduce carbon emissions in a way that keeps jobs and money in our region¹⁰.

3.4 Implementing customer feedback

Customer engagement was fundamental in shaping the outcomes of this price submission (Chapter 4) and the guaranteed service levels set by our customer committee (Chapter 5). Key results and activities stemming from our engagement program are summarised below:

- No increase in prices Customer feedback from our price submission engagement was consistent with our 2016 customer satisfaction survey, where 86 per cent of customers indicated a preference for no increase in prices¹⁵.
- **East Gippsland Water's customer financial assistance program** Customers confirmed they want us to maintain the current level of financial assistance to those in genuine financial hardship, which is capped at \$500 per customer, per annum. Based on their

feedback, we will also increase education about the financial assistance program to increase customer awareness¹¹.

- Environmental sustainability Customers supported our pledge to reduce emissions by 21% by 2025 in the most cost effective way possible. Customers also confirmed support to offer grants to local schools and community groups to support native revegetation projects and habitat creation throughout the region¹¹.
- Service levels Customers opted to maintain services at existing levels. In addition, the majority of customers said they wanted to receive bills via email and we will provide an incentive rebate for doing so¹¹.
- **Liveability** Customers wanted us to provide a rebate to outdoor, community-run recreation groups. They also supported the continuation of our program to install drinking water fountains around our service region¹¹.

Despite customers indicating their preference for no increase in prices early in the engagement process, they did demonstrate willingness to pay for some specific additional initiatives. While ordinarily this would result in customers paying extra, we have decided to absorb the cost in the overall charge to customers. We describe how we can achieve this in Chapter 7.

3.5 PREMO summary – Engagement

Due to the extensive and meaningful qualitative and quantitative customer engagement undertaken in the two years leading up to this price submission, **East Gippsland Water has assessed itself to be advanced (3/4) for the engagement component of the PREMO rating,** as outlined in Table 9 below.

ASPECT	SCORE	COMMENT
To what extent has the business justified how the form of engagement suits the content of consultation, the water business' circumstance and its customers?	3	InSync Surveys collaborated with our customer committee to develop community engagement strategies, using IAP2 methodology ¹ . This process was validated by the high number of responses (more than 2267 people engaged ⁷ , representing about 10% of our customer base) from the towns in our region.
To what extent has the business demonstrated that it provided appropriate instruction and information to customers about the purpose, form and content of the customer engagement?	3	The customer committee was guided by the experiences of its members, as well as qualitative responses from 63 customers, when determining the form and content of the engagement process ⁹ . This ensured subsequent quantitative engagement was targeted to matters of importance to customers. The effectiveness of this process was validated by the high number of responses and the consistency of feedback and support for preferences throughout the entire engagement program ⁷ . Regular information through wide ranging media channels ⁶ was a hallmark of the program to inform customers of the requirement for, and their opportunity to influence the price submission. Face-to-face engagement ensured customers understood the instructions, facilitating high quality feedback.
To what extent has the business demonstrated that the matters it has engaged are on those that have the most influence on the services provided to customers and prices charged?		Customers were engaged on areas they could influence. Matters subject to regulatory compliance were identified and quarantined. Working with the customer committee in the first instance to identify priority themes; engaging with customers on a wide range of issues through qualitative discussions; and then engaging broadly with many customers over a significant timeframe ensured customers had their say on priority issues ⁹ . This was followed by the Redhanded engagement which enabled customers to indicate the scope of outcomes to be delivered and the prices they were prepared to pay ¹¹ .

Table 9: Engagement PREMO assessment

ASPECT SCORE		COMMENT	
		Finally, the outcomes tables included in Chapter 4 have been endorsed by the customer committee following a final stage of engagement with customers to validate the conclusions and the content of the price submission ¹⁹ .	
		Customers were also engaged on water restriction levels and frequencies for the Urban Water Strategy ¹⁴ .	
To what extent has the business explained how it decided when to carry out its engagement?	2.25	Our price submission engagement spanned two years and embraced the IAP2 framework ¹ , which encourages consideration of timing of engagement amongst other things. We targeted our engagement to coincide with locally run events to facilitate face-to-face contact with a broad cross-section of the community ⁷ . This included long weekends to increase the likelihood of engaging with non-resident home owners.	
To what extent has the business demonstrated how its engagement with customers has influenced its submission?	3	Customer engagement drove our decision to maintain service levels and prices for this submission ^{15 16} . The influence of customers also determined our decision to include low cost/big impact projects to benefit community liveability ¹¹ .	
		The outcomes agreed with customers have been determined through the engagement program. Results of the engagement program are the underlying influence for the guaranteed service levels determined by the customer committee and are directly linked to the outputs to be delivered through the price submission ^{4 5} .	
Customer committee (collaboration at all phases).	3.5	The customer committee was engaged in all phases of our engagement process, principally at the collaborate level of the IAP2 spectrum ¹ . The committee was instrumental in developing the engagement program, formulating surveys, conducting customer interviews, reviewing the outcomes of the various engagement stages, and making recommendations to the board (all of which were adopted by the board). The committee was also empowered by the board to determine and set the guaranteed service levels for the price submission (see Chapter 5) ³ .	
Targeted program to engage key demographics.	3	Our engagement targeted markets, shopping centres, neighbourhood houses, the Gippsland & East Gippsland Aboriginal Co-op, tourists, permanent residents, customers in hardship, young people and more to ensure diversity of opinions and feedback representative of the community we service ^{1 10 11} ²⁰ .	
Overall Average Score	3	Advanced	

Key references relating to this chapter:

- 1. IAP2 Community Engagement Plans SUB/16/98
- 2. EGW Customer Committee Charter- DOC/14/806[v5]
- 3. Board Strategy Committee Minutes April 2017 DOC/17/17449
- 4. Customer Committee Focus Group Minutes June 2017 DOC/17/28183
- 5. GSL Presentation to Customer Committee May 2017 DOC/17/17319
- 6. Price submission media coverage tracking log DOC/16/49881
- 7. Price submission engagement results overview DOC/17/40740
- 8. Customer Committee March 2016 Meeting issues/themes outcome D0C/16/12025
- 9. EGW Qualitative Survey Report InSync July 2016 DOC/16/34739

- 10. EGW Quantitative Survey Report InSync December 2016 DOC/16/56169
- 11. EGW Quantitative Survey Report Redhanded May 2017 DOC/17/22697
- 12. 'Your Say' feedback pamphlet June 2017 DOC/17/25466
- 13. EGW Price Submission- our business plan- what it means to you August 2017-DOC/17/37343
- 14. Urban Water Strategy 2017 Survey/Community Engagement SUB/17/271
- 15. EGW customer satisfaction survey executive summary 2016 DOC/16/54279
- 16. EGW customer satisfaction survey report 2015 and questions DOC/15/50480
- 17. Complaints Analysis 2012-2015 DOC/16/10301
- 18. WSAA National Customer Perceptions Survey Presentation DOC/16/9581
- 19. Customer Committee Minutes September 2017 (unconfirmed) DOC/17/42180
- 20. Results Price Submission Round 6 engagement 2017 DOC/17/44138

4. Outcomes

At a glance:

- This price submission delivers five key outcomes to customers:
 - 1. Current levels of water and sewerage services maintained.
 - 2. Safe, high quality drinking water supplies delivered.
 - 3. No increase to average customer bills (beyond CPI).
 - 4. Commitment to environmental sustainability.
 - 5. Enhanced liveability and resilience in our region.
- PREMO self-assessed rating for outcomes = standard (2.6/4).

Our five proposed outcomes for customers during the 2018-23 regulatory period are outlined below with their corresponding outputs and deliverables, as well as targets for measuring our performance. Our performance against these measures and targets will be reported to our customers annually through the publication of a public 'scorecard'.

4.1 Outcome 1: Current levels of water and sewerage services maintained

Customers said they want East Gippsland Water to maintain current levels of service (described in Chapter 3). Our performance against key performance indicators specified by the Essential Services Commission has been consistently high when compared with our industry peers and we are committed to continuing to deliver this standard.

A set of outputs relating to this outcome are detailed in Table 10. Some outputs are activities we will continue to deliver and some are new activities we will implement during the regulatory period.

OUTCOME 1: CURRENT LEVELS OF WATER AND SEWERAGE SERVICES MAINTAINED		
Key projects	Measures and targets	
• Wy Yung clear water storage (\$9,975k capital expenditure – Chapter 8).	93% of customers will not experience an unplanned water supply interruption each	
 Upgrade main supply pipeline (sarsfield to Johnsonville) (\$2,814k capital - Chapter 8). 	year.	
Sarsfield clear water storage augmentation (\$2,309k capital - Chapter 8).	Where an unplanned water interruption occurs we will restore it within 75 minutes	
 Woodglen raw water storages – dam safety upgrades (\$2,118k capital - Chapter 8). 	(based on a five year rolling average).	
 Bairnsdale to Eagle Point main supply pipeline (\$2,034k capital - Chapter 8). 	We will rectify sewer spills and blockages within 80 minutes (based on a five year rolling average).	
Activities and processes	No more than 94 customer complaints	
 Implement a new initiative to provide a rebate for customers who elect to receive their bills via email. 	received per annum (based on a five year rolling average)	
 Increase community engagement and education to raise awareness of our financial assistance program (Chapter 3). 	We will report percentage of customers receiving bills via email.	
• Continue to provide assistance to customers experiencing genuine financial hardship (up to \$500 per year) (Chapter 3).	We will report on the percentage of customers aware of our financial assistance program	
Continue with our infrastructure renewals program (Chapter 8).	We will report progress on delivery of our key	
Continue our high-pressure sewer cleaning program.	projects.	
Continue with our high-pressure water mains cleaning.	-	

Table 10: Outcome 1 summary table

OU	OUTCOME 1: CURRENT LEVELS OF WATER AND SEWERAGE SERVICES MAINTAINED		
•	Maintain service that ensures customers are issued reminder notices for late bill payments prior to final notices.		
•	Maintain service that allows customers to complete forms relating to general enquiries or change of account details online.		

4.2 Outcome 2: Safe, high quality drinking water supplies delivered

Provision of safe, high quality drinking water supplies is a regulatory requirement of the Department of Health and Human Services. Our board also has a 'very low' risk appetite for water quality risk and this was supported by customers who expressed concern that if we lowered service levels we may compromise water quality (refer to Chapter 3).

The outputs summarised in Table 11 were developed in our water quality reference strategy in consultation with the Department of Health and Human Services¹.

OUTCOME 2: SAFE, HIGH QUALITY DRINKING WATER SUPPLIES DELIVERED		
Key projects	Measures and targets	
 Mallacoota clear water storage (\$1,935k capital expenditure – Chapter 8). Lindenow clear water storage (\$1,000k capital expenditure – Chapter 8). Install a raw water storage at Buchan water treatment plant (\$430k capital expenditure). 	 Compliance with water quality audits (Safe Drinking Water Act 2003). Compliance with water quality standards (Safe Drinking Water Regulations 2015). 	
Activities and processes	 We will report progress on delivery of our key projects. 	
 Continue to progress with operator training in line with best practice guidelines². 	p. ojecte.	
Continue with high-pressure mains cleaning program.		
Continue water treatment plant renewals program.		
Continue water main renewals program.		
Continue our SCADA development program ³ .		
 Undertake health-based target assessments, including catchment sanitary surveys at Cann River and Buchan². 		
• Implement a shade cloth renewal program for our raw water storages ¹ .		

Table 11: Outcome 2 summary table

4.3 Outcome 3: No increase to average customer bills (beyond CPI)

Our proposal to maintain current prices and levels of service was a key customer preference in the 2016 customer satisfaction survey (see Chapter 3).

The key output proposed in Table 12 is the operating efficiency program (described in more detail in Chapter 7), which will allow us to absorb increased operating costs (such as electricity) and accommodate an increased capital program, without raising prices for our customers.

Our proposed 'individual price cap' model will provide customers with confidence that their bills will not increase beyond the consumer price index (Chapter 12), with the volumetric tariff providing customers with a level of direct control over their water bills (Chapter 13).

OUTCOME 3: NO INCREASE TO AVERAGE CUSTOMER BILLS (BEYOND CPI)		
Activities and processes	Measures and targets	
Continue with our operational efficiency program (Chapter 7).		

Table 12: Outcome 3 summary table

OU	OUTCOME 3: NO INCREASE TO AVERAGE CUSTOMER BILLS (BEYOND CPI)				
٠	Continue to participate in joint industry procurement programs (Chapter 7).	•	We will publicly report the value of the		
•	Continue to participate in the 'shared services' program with other regional government agencies and the Gippsland Regional Water Alliance (Chapter 7).		average annual residential customer bill.		
٠	Introduce an individual price cap model (Chapter 12).				
•	Continue to actively participate in Intelligent Water Networks, seeking efficiencies through innovation.				

4.4 Outcome 4: Commitment to environmental sustainability

Customers told us they want to see our business as an environmental leader (described in Chapter 3).

Relevant outputs, summarised in Table 13, were developed in consultation with our regulator, the Environment Protection Authority⁴. Our energy efficiency program⁵ was provided to the Department of Environment, Land, Water and Planning (DELWP) as part of our pledge to reduce our emissions in line with Victorian Government policy.

OUTCOME 4: COMMITMENT TO ENVIRONMENTAL SUSTAINABILITY			
Key projects	Measures and targets		
 Paynesville recycled water storage and irrigation augmentation (\$3,546k capital expenditure - Chapter 8). 	We will report on progress of grants issued under our native vegetation fund.		
 Dinner Plain recycled water storage augmentation (\$1,793k capital expenditure - Chapter 8). 	We will report on progress towards achieving our pledge to reduce emissions by 21% by		
 Lakes Entrance wastewater treatment plant odour management (\$709k capital expenditure - Chapter 8). 	2025.We will report progress on delivery of our key		
 Undertake ecological risk assessments at our facilities that provide recycled water for environmental flows (Lindenow & Bairnsdale)⁶. 	projects.		
• Implement native vegetation fund (Chapter 3).			
Activities and processes			
 Implement energy efficiency program⁵. 			
 Reduce infiltration to sewerage systems⁷. 			
Continue our lagoon desludging program (Chapter 7).			
 Continue to provide education and information to customers about water efficiency and conservation measures. 			
Continue with our high-pressure sewer cleaning program.			

Table 13: Outcome 4 summary table

4.5 Outcome 5: Enhanced liveability and resilience in our region

Customers want to see East Gippsland Water supporting liveability in our region (described in Chapter 3). This outcome, along with a focus on resilience (for example, preparedness for unfavourable climatic conditions and emergencies), is consistent with the Victorian Government's position outlined in Water for Victoria.

A set of outputs related to supporting liveability and resilience in our region is detailed in Table 14.

Table 14: Outcome 5 summary table

OUTCOME 5: ENHANCED LIVEABILITY AND RESILIENCE IN OUR REGION			
Activities and processes	Measures and targets		
 Installation of new drinking water fountains across East Gippsland (Chapter 3). 	 We will install three drinking fountains per annum on average. 		
Provide bill rebates for outdoor community-run, not for profit recreation groups (Chapter 3).	We will report on the total number and aggregate value of bill rebates per annum		
Undertake the commitments in the urban water strategy relating to relaxed	provided to not-for-profit recreation groups.		
 water restrictions for the protection of critical community assets in times of water shortage in collaboration with local government⁸. Implement the planned urban water strategy program to maintain customeragreed services levels in times of water shortage⁸. 	 We will report on progress in identifying critical community assets subject to relaxed 		
	restrictions in times of water shortage.		
	 Moderate water restrictions (stages one and two) will occur no more than one in 10 year frequency on average. 		
	 Severe water restrictions (stages three and four) will occur no more than one in 15 year frequency on average. 		

4.6 PREMO summary – Outcomes

East Gippsland Water assessed itself as meeting a standard rating (2.6/4) for the outcomes component of PREMO. Details of the assessment are outlined in Table 15.

ASPECT	SCORE	COMMENT
Evidence outcomes have taken into account customer views.	3	The outcomes in our submission reflect our customer preferences and priorities. We have committed to delivering the same high standard of service and maintaining prices at current levels, while also providing additional value through outcomes to increase liveability and environmental performance. We have received supportive feedback on all outcomes from customers during our engagement.
Has the business provided sufficient explanation of how the outcomes align with forecast expenditure.	2.5	Some outcomes come at an increased cost which is reflected in budget items in the forecast. However, through other efficiency measures, we have absorbed this, resulting in no increase in average real prices.
Outputs to support outcomes are measurable, robust and deliverable.	2.5	Our outputs have been rigorously assessed to ensure they are both robust and deliverable. We already have systems in place that monitor the majority of nominated measures and those new measures proposed have been subject to rigorous review ⁹ .
Outputs are reasonable measures against stated outcomes.	2.5	We have developed measures against our outputs to enable us to track their progress and delivery ⁹ .
Has the business demonstrated a process to measure performance against each outcome and inform customers.	2.5	We have developed measures against our outputs and included commitments to inform customers of our progress and performance annually through publication of a public scorecard ⁹ .
Overall Average Score	2.6	Standard

Table 15: Outcomes PREMO assessment

Key references relating to this chapter:

- 1. Correspondence to DHHS DOC/17/26059
- 2. Water quality reference strategy DOC/16/5938
- 3. SCADA reference strategy DOC/16/38042
- 4. Correspondence to EPA DOC/17/26058

- 5. Energy Management Reference Strategy DOC/16/36735
- 6. Wastewater compliance reference strategy DOC/16/5940
- 7. Infiltration and Inflow Reference Strategy -DOC/16/22163
- 8. East Gippsland Water Urban Water Strategy DOC/16/18427
- 9. Outcomes and targets workshop DOC/17/41844

5. Guaranteed service levels

At a glance:

- Six guaranteed service levels (GSLs) have been set in this price submission.
- Four of the GSLs were developed and set independently by our customer committee.
- The GSL relating to bill payment difficulties is required by the Essential Services Commission.
- Our board elected to retain the GSL relating to sewage spills within a dwelling.
- Customer preferences and outcomes from the engagement program informed the committee's selection of GSLs to ensure they aligned with services valued by customers.

The board of East Gippsland Water empowered our independent customer committee to determine guaranteed service levels (GSLs) and set the related incentives as a demonstration of our commitment to delivering services most valued by our customers.

In June 2017, the customer committee sat as a focus group to select measurable GSLs that were connected to customer outcomes concluded from the price submission engagement program, or related to our existing key performance indicators¹.

In addition to the four GSLs developed by our customer committee, our board elected to retain one existing GSL relating to sewage spills within a dwelling. The mandatory GSL relating to customers experiencing bill difficulties, as defined by the Essential Services Commission, has also been included.

The price submission commits to these GSLs, as outlined in Table 16:

	SERVICE AREA	GUARANTEED SERVICE LEVEL
1	Bill payment difficulties	We will not restrict a residential customer's water supply or take legal action against the customer before all reasonable efforts have been made to contact them and provide information about help available if they are experiencing difficulties.*
		If East Gippsland Water fails to do this, a rebate of \$300 will be applied to the customer's bill.
2	Sewage spills	In the event of a sewage spill within a customer's house, which is caused by us, there will be a \$1000 cash payment to the home-occupier affected.
3		We will notify customers of planned interruptions to their water supply at least 48 hours in advance. If the organisation fails to do this, a rebate of \$65 will be applied to the bills of affected customers.
4	 Planned interruptions to water supply 	If a planned water supply interruption exceeds the period specified in the notice affected customers will have a \$65 rebate applied to their bill (continuation of a existing GSL).
5		We are striving for a 21% reduction in greenhouse gas emissions by 2025 and will provide a six-monthly update on progress to the community. There will be a written public apology if this update is not provided.
6	Environmental sustainability	We have committed \$90,000 each year from 2018-2023 to support local school and community groups with grants for native vegetation planting and habitat creation projects across the East Gippsland region.
		The allocation of funds for this program will be reported on at least annually. An unspent money will be safeguarded for use only on the program.

Table 16: Guaranteed service levels

*As defined by the Essential Services Commission

Key references relating to this chapter:

1. Customer Committee Focus Group Minutes June 2017 - DOC/17/28183

6. Revenue requirement

At a glance:

- Forecast revenue requirement is \$170.8 million over five years.
- Our return on assets is based on a standard PREMO rating.

To deliver the outcomes proposed in this price submission, the forecast revenue requirement for the next regulatory period is \$170.8 million, comprising the following breakdown:

Table 17: Revenue 'building blocks'1

REVENUE REQUIREMENT	\$ MILLION (OVER 5 YEARS)
Operating expenditure recovery	\$97.9
Return on assets – standard PREMO rating	\$31.4
Return of assets (depreciation)	\$40.4
Tax liability (commencing 2020/21)	\$2.0
Non-prescribed services	-\$0.9
Total	\$170.8

The building blocks listed above are described in further detail in the following chapters, except for non-prescribed services. Non-prescribed services include rental from commercial lease arrangements, leasing out of farm land, legal fees incurred but transferred to account holders associated with debt mitigation, and recoverable sundry works.

The \$170.8 million in revenue required over the period will be recovered through fees and charges to customers for water and wastewater services, along with miscellaneous revenue sources.

We expect to generate \$750k per year in revenue from miscellaneous income streams. These income streams include planning fees, tapping fees, information statements, administration fees on developer works, septage receival fees, and other miscellaneous income sources. More details can be provided upon request.

The remaining revenue requirement will be achieved through fees and charges for residential and non-residential customers through a fixed wastewater tariff and fixed water service tariff, plus a volumetric fee based on the number of kilolitres of water consumed by the customer. There are also trade waste charges for minor and major customers. Please refer to Chapter 13 for further detail.

6.1 Revenue requirement over 10 year period.

Figure 3 shows the forecast revenue requirement for our business over the next 10 years. We are expecting an increase in capital expenditure in the period of 2023-28 to approximately \$71 million in total, up from \$62 million forecast for the 2018-23 period.

From 2023, only minor increases in operating costs relating to the marginal cost of services to new customers and the environmental contribution are forecast for the following five years. We also expect to continue to be in a tax paying position during the 2023-28 period. The revenue requirement from 2023-28 is estimated to be \$193.0 million compared with the proposed \$170.8 million for the 2018-2023 regulatory period.

The forecast increase in infrastructure investment for 2023-28 in part reflects our balanced risk approach to deferring works where the timing is uncertain for the coming regulatory period 2018-

23. The program beyond 2023 involves greater uncertainty, related to timing of works linked to growth forecasts and renewals investment requirements. New innovations and strategies may present lower cost solutions or enable the extension of useable asset lives. We plan to continue to refine the infrastructure investment forecast during the 2018-23 regulatory period to ensure it is efficient and keeps price impacts to a minimum.



Figure 3: Revenue requirement forecast 2018-2028¹



7. Forecast operating expenditure

At a glance:

- East Gippsland Water is delivering service outcomes valued by customers at existing prices.
- Proposed operational cost efficiency improvement rate is CPI minus 1.15%, per annum (average).
- Operational cost savings aimed at keeping prices at current levels will be delivered through our ongoing efficiency program.
- Our operational efficiency program is a measure of our commitment to delivering efficient and cost-effective services and outcomes to our customers.

The operating costs included in this submission are both prudent and efficient. Existing strategies were reviewed and new reference strategies were developed to profile the operational expenditure required for the 2018-23 regulatory period (refer to Chapter 1). The operational cost changes above or below the baseline year identified in these strategies were validated through multiple executive reviews.

7.1 Total and annual forecast operating expenditure

We forecast a total operating expenditure of \$97.9 million in the five-year regulatory period. This includes \$7.5 million in non-controllable expenditure such as regulatory licence fees and the environmental contribution.

Figure 4 outlines the actual and forecast operating expenditure over the current 2013-18 regulatory period, as well as a forecast for the next regulatory period. The graph shows a reduction in forecast expenditure from the 2016/17 baseline year to the 2018-23 period, which reflects our commitment to delivering our operational efficiency program (see Section 7.3).



Figure 4: Operating expenditure (actual and forecast) for 2013-231

Figure 5 outlines our forecast operating expenditure for each year of the coming regulatory period and to 2028, segmented into the major service categories outlined in guidance from the Essential Services Commission.



Figure 5: Operating expenditure for ten-year forecast by cost category¹

7.2 Baseline controllable operating expenditure

The 2016/17 financial year was used to develop a baseline controllable operating expenditure profile for the 2018-23 regulatory period. To do this, all non-controllable, one-off and non-recurring costs incurred in 2016/17 were removed from the baseline calculation.

The total prescribed operating expenditure for 2016/17 was \$20.1 million. However, once the non-controllable costs were removed along with the one-off and non-recurring costs, the baseline operating expenditure value is \$17.6 million (refer to Table 18).

The resultant controllable expenditure for 2016/17 when compared with the 2016/17 controllable costs approved in the 2013-18 price decision is \$450k, or 2% lower (refer to Table 18), which reflects our operational efficiency achievements.

Baseline year - total prescribed operating expenditure in 2016/17 (\$ million):		20.05
Less non-controllable expenditure items incurred in 2016-17:		
External bulk water charges (excluding temporary purchases)		0.00
External temporary water purchases		0.00
Licence fees		0.06
Environment contribution		1.22
Other non-controllable		0.00
Total		1.28
Baseline year - total controllable operating expenditure in 2016/17 (\$ million):		18.77
Adjustments for non-recurring expenditure items incurred in 2016/17 and any efficiency savings to be realised from 2016/17:		
Desludging increase in allowance		0.69
Abolition of Government Water Rebate		0.55
Seven months of EBA increase not incurred		(0.12)
Price Submission costs		0.04
Total		1.16
Baseline controllable operating expenditure 2016/17 (\$ million):		17.61
Comparison with approved 2016/17 total controllable opex per 2013 determination mo	del	
2016/17	Difference	%
18.06	-0.45	-2%

Table 18: 2018 regulatory period baseline operating expenditure summary¹

7.3 Operating expenditure savings

Multiple efficiency measures have been identified and implemented over the last four years to deliver a baseline operational expenditure starting point \$450k below that forecast in 2013-18 price decision. These measures include:

- Streamlining staff training.
- Leveraging panel contractors for grounds maintenance activities.
- Participating in joint/collaborative procurement opportunities.
- Upgrading our telecommunications systems and plans.
- In-house development and management of SCADA software.

For the 2018-23 regulatory period, we are committed to seeking further efficiency opportunities, with a focus on utilising the group procurement options through the Gippsland Regional Water Alliance and VicWater. Embedded into the forecast operational expenditure for the price submission are the following further efficiency savings²:

• Chemicals

Reduced chemical procurement costs by participating in the collaborative VicWater group chemical contract.

• Sampling and analysis

Water and wastewater sampling costs reduced through a contract negotiated by the Gippsland Regional Water Alliance.

Further reduction in sampling and testing costs due to planned rationalisation of water quality localities in our Mitchell system.

• Contractors

Innovative solutions to reduce contractor costs for root cutting and closed-circuit TV inspection of our sewer mains.

• Infiltration

Using industry leading technology to reduce stormwater/groundwater infiltration across the sewerage network to reduce pumping and treatment costs.

Overall electricity consumption

Reduction in electricity consumption through the implementation of our energy efficiency strategy³.

Aquifer storage recovery initiative

Having secured a new licence with provision for inter-annual banking during 2017/18, a revised operating regime will lead to reduced annual costs.

• Red tape reduction

We will continue to support VicWater and work with regulators in the drive to minimise red tape and related costs.

7.4 Operating expenditure increases

The following operating cost increases have been allowed for in this price proposal:

• Electricity prices

We have forecast prices will increase by 24% in the first year of this price submission and 3% per year thereafter (VicWater Scenario 2)⁴. This represents an overall increase of about \$1 million over the five-year period in operating costs for our business.

• Desludging of wastewater treatment lagoons

An increase in expenditure of approximately \$500k for lagoon desludging has been included in the operational forecasts. As many of our lagoon sites were constructed in the same period, a number are now due for desludging. Significant review and refinement has been undertaken to 'smooth' the desludging program over future pricing periods to limit price impacts for our customers⁵.

Operating expenditure resulting from capital program

An additional \$470k (over five years) in operational expenditure has been forecast resulting from new capital expenditure⁶⁷.

• Environmental contribution

The environmental contribution will increase by approximately \$1.1 million to \$7.2 million for the five years of the 2018-23 regulatory period.

Regulatory obligations

A range of costs and new regulatory driven initiatives are forecast to increase the load on our business during the 2018-23 period, such as family violence provisions outlined the 2017 Essential Services Commission's Customer Service Code, new provisions in the Statement of Obligations (including emissions reduction pledge), the Letter of Expectations. Other one-off allowances have been made to meet requirements outlined by the Department of Health and Human Services (for example sanitary surveys to improve our compliance with the 2015 Safe Drinking Water Guidelines) and by the Environment Protection Authority (for example ecological risk assessments for licensed sites that discharge to waterways).

We plan to absorb these new costs through operational efficiency improvements and advocating to reduce red tape.

• Customer choices

Minor high-impact/low-cost initiatives identified as important by customers have been included in this submission, such as funding for schools to support native vegetation plantings and rebates to outdoor community-run recreation groups)⁸⁹. Refer to Chapter 3 for further information.

7.5 Annual cost efficiency improvement rate

Taking into consideration the above narrative, we plan to deliver an average controllable cost efficiency improvement for the price submission period of CPI minus 1.15% per annum. The forecast cost efficiency improvement rate for each year of the 2018 regulatory period is shown in Table 19.

Table 19: Cost efficiency improvement rates for the 2018-23 period¹

	2018/19	2019/20	2020/21	2021/22	2022/23
Cost efficiency improvement rate (% per annum)	1.5%	1.3%	1.0%	1.0%	1.0%

7.6 Allocation of corporate costs

Most of the corporate costs (98%) are recorded against our head office facility. When using the financial model provided by the Essential Services Commission, the basis for allocation of corporate costs has been a 50:50 split between water and sewerage services.

Key references relating to this chapter:

- 1. ESC model DOC/17/40534
- 2. Operational efficiency program 2018-2023 DOC/17/41297
- 3. Energy Management Reference Strategy DOC/16/36735
- 4. VicWater Supply Chain Excellence Program 5 Year Electricity Price Forecast DOC/17/40993
- 5. Desludging Program DOC/16/55514
- 6. Opex from new Capex Contractor/maintenance DOC/17/33134
- 7. Opex from new Capex Employee DOC/17/33134
- 8. Tree planting DOC/17/8941
- 9. Hardship DOC/17/24873

8. Forecast capital expenditure

At a glance:

- \$62 million capital works program over five years, including:
- \$10 million to construct a clear water storage at Wy Yung.
- 46% spend on top 10 projects.
- 45% spend on capital programs (ongoing through regulatory period).
- 9% spend on 'other projects', such as those for compliance and growth, which are not considered capital programs or top 10.

8.1 Summary of capital expenditure program

Having regard to regulatory compliance requirements, customer feedback, projections for population growth, asset condition and climate change, we plan to invest \$62 million in capital works over the regulatory period. This planned expenditure does not include allocations for third-party funded works, such as developer works.

The proposed capital expenditure of \$62 million represents a 24% increase to the projected capital expenditure of \$50 million during 2013-18. The increase is largely due to the one-off \$10 million Wy Yung clear water storage project (refer to 'top ten' tables in Section 8.2) and an increase to our renewals program to replace ageing infrastructure.

Figure 6 shows the historical and projected future increase in capital expenditure by service category.



Figure 6: Historical (actual) & forecast capital expenditure by service category (recycled water from 2013-18 was categorised as 'sewerage')

As shown in Figure 7, projects with renewals as their driver form the main component of our capital program, accounting for 62% of the overall forecast.



Figure 7: Total capital expenditure each year 2018-23 by driver

8.2 Major capital projects

An overview of each of our top 10 projects by cost is outlined in the tables below, including their drivers, links to outcomes, estimated cost, timing and background. The total capital expenditure for the top 10 major projects represents 46% of the planned capital expenditure over the five-year regulatory period.

Table 20: Project 1: wy fung clear water storage	Table 20:	Project 1: Wy	Yung clear	water storage ¹
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PROJECT: WY YUNG CLEAR WATER STORAGE	
Cost and timing: \$9,975k (2018-21)	
Service category: Water	
Asset category: Pipelines/network	
Cost Driver category: Renewals	
Description: A 50ML storage will be constructed	
Outcome: 1. Maintain current levels of service	
Current risk rating: Very high	
Risk rating post-control: Moderate	
Background: Our critical water storage facility at Wy Yung, which services our largest supply system, is currently leaking (refer to basin on the right in Figure 8) ¹ . The internal liner has failed and requires replacement ¹ .	
Due to the criticality of this supply, additional storage volume is	

required in the near future to maintain service for peak period

demand.



Figure 8: Wy Yung clear water storage facility

Table 21: Project 2: Paynesville recycled water storage and irrigation augmentation²

PROJECT: PAYNESVILLE RECYCLED WATER STORAGE AND IRRIGATION AUGMENTATION

Cost and timing: \$3,546k (2020-23)

Service category: Recycled water

Asset category: Treatment

Cost driver category: Growth

Description: Raise embankments of lagoons and winter storage to create an additional 85ML storage and construct an additional 56ha of irrigation.

Outcome: 4. Commitment to environmental sustainability.

Risk rating pre-control: High

Risk rating post-control: Low

Background: EPA Victoria requires the capacity of recycled water storages and irrigation systems to be designed to ensure the probability of a wet year discharge event in any given year is less than 10%. A review of this system in 2016 confirmed that given the connection growth forecast and other climatic changes over the years, the system needs to be augmented to meet the 90th percentile wet year criterion².



Figure 9: Paynesville recycled water storage

Table 22: Project 3: Upgrade main supply pipeline (Sarsfield to Johnsonville)³

PROJECT: UPGRADE MAIN SUPPLY PIPELINE (SARSFIELD TO JOHNSONVILLE)

Cost and timing: \$151k (2017/18) & \$2,814k (2018-20)

Service category: Water

Asset category: Pipeline/network

Cost driver category: Growth

Description: Upgrade 3.1km of water pipeline to 450mm.

Outcome: 1. Maintain current levels of service

Risk rating pre-control: High

Risk rating post-control: Moderate

Background: The Mitchell River Water Network Master Plan found the capacity of this pipeline requires augmentation to maintain service levels and meet future development and growth in demand³.



Figure 10: Construction works during a similar project (Wy Yung to Sarsfield pipeline realignment)

Table 23: Project 4: Sarsfield clear water storage augmentation⁴

PROJECT: SARSFIELD CLEAR WATER STORAGE AUGMENTATIO
Cost & timing: \$300k (2017/18) & \$2,309k (2018-19)
Service category: Water
Asset category: Pipeline/network
Cost Driver category: Growth
Description: Construct a second 6ML clear water tank at Sarsfield
Outcome: 1. Maintain current levels of service
Risk rating pre-control: High

Risk rating post-control: Moderate

Background: The Mitchell River Water Network Master Plan found the capacity of the clear water storage volume requires augmentation to meet current service levels and to meet future growth.



Figure 11: Current Sarsfield tank site

Table 24: Project 5: Woodglen raw water storage- dam safety upgrades⁵

PROJECT: WOODGLEN RAW WATER STORAGE – DAM SAFETY U	PGRADES
Cost and timing: \$2,118k (2021-2023) & \$2052k (2023/24)	a climate and the second descent
Service category: Water	A TOTAL A CALL PLAN CONTRACT
Asset category: Pipeline/network	T
Cost Driver Category: Improvements/compliance	
Description: Dam safety assessment has identified multiple actions to reduce risk of failure.	
Outcome: 1. Maintain current levels of service	the second secon
Risk rating pre-control: Very high	······································
Risk rating post-control: Moderate	
Background: An unacceptable dam safety risk was identified through a consequence and safety review (CASR) due to the deterioration of the Woodglen 1 embankment ⁵ . Embankment upgrade works to satisfy the ANCOLD Guidelines is required.	Figure 12: Woodglen 1 southern embankment

Table 25: Project 6: Bairnsdale to Eagle Point main supply pipeline renewal⁶

PROJECT: BAIRNSDALE TO EAGLE POINT MAIN SUPPLY PIPELINE RENEWAL

Cost and timing: \$2,034k (2020-2023)

Service category: Water

Asset category: Pipeline/network

Cost Driver category: Renewals

Description: Replace 2km of pipeline with 375mm diameter

Outcome: 1. Maintain current levels of service

Risk rating pre-control: High

Risk rating post-control: Low

Background: Poor condition of this length of pipe results in an unacceptable frequency of bursts and adverse impacts on customer services⁶.



Figure 13: Eagle Point main supply pipeline alignment

Table 26: Project 7: Mallacoota clear water storage⁷

PROJECT: MALLACOOTA CLEAR WATER STORAGE	
Cost and timing: \$1,935k (2020-2023)	
Service category: Water	
Asset category: Treatment	
Driver: Improvements/compliance	
Description: A 2ML tank will be constructed	
Outcome: 2. Safe, high quality drinking water supplies delivered	
Risk rating pre-control: Very high	
Risk rating post-control: Moderate	
Background: The clear water storage at the Mallacoota water treatment plant is shade cloth-covered and does not provide sufficient barriers from contaminants with a consequent elevated risk to water quality ⁷ . To address this risk, the existing clear water storage will be converted into a raw water storage and a 2ML clear water tank will be	:



Figure 14: Mallacoota water treatment plant

Table 27: Project 8: Dinner Plain recycled water storage augmentation⁸

PROJECT: DINNER PLAIN RECYCLED WATER STORAGE AUGMENTATION

Cost and timing: \$1,793k (2019-2021)

Service category: Recycled Water

Asset category: Treatment

constructed7.

Cost Driver category: Improvements/compliance

Description: Convert unused lagoon (refer to adjacent picture) into a 20ML winter storage

Outcome: 4. Commitment to environmental sustainability

Risk rating pre-control: High

Risk rating post-control: Moderate

Background: EPA Victoria requires the capacity of recycled water storages and irrigation systems to be designed to ensure the probability of a wet year discharge event in any given year is less than 10%. A review of this system in 2016 confirmed that given the connection growth forecast and other climatic changes over the years, the system needs to be augmented to meet the 90th percentile wet year criterion⁸.



Figure 15: Unused Dinner Plain Lagoon 4 in winter

Table 28: Project 9: Lindenow storage water quality improvement⁹

PROJECT: LINDENOW STORAGE WATER QUALITY IMPROVEMEN	Г
Cost and timing: \$1,000k (2020-2023)	
Service category: Water	
Asset category: Pipelines/network	
Cost Driver category: Improvements/compliance	
Description: Construct a 1ML storage at Woodglen water treatment plant	

Outcome: 2. Safe, high quality drinking water supplies delivered

Risk rating pre-control: Very high

Risk rating post-control: Moderate

Background: The clear water basin that supplies Lindenow is shade cloth-covered and does not provide sufficient barrier from contaminants with a consequent elevated risk to water quality. To address this risk, a 1ML clear water tank will be constructed at Woodglen water treatment plant⁹.



Figure 16: Lindenow clear water basin

Table 29: Project 10: Lakes Entrance wastewater treatment plant odour management¹⁰

PROJECT: LAKES	5 ENTRANCE WASTEWA	ATER TREATMENT PLAI	NT ODOUR MANAGEMENT

Cost and timing: \$709k (2018-20)

Service category: Sewerage

Asset category: Treatment

Cost Driver category: Improvements/compliance

Description: Installation of odour control unit covering inlet works and mixing tank structures

Outcome: 4. Commitment to environmental sustainability

Risk rating pre-control: Very high

Risk rating post-control: High

Background: Our amalgamated licence with EPA Victoria requires that no offensive odour should be detectable beyond the premise boundary. The 2016 Lakes Entrance wastewater treatment plant facility master plan identified this project as a priority¹⁰



Figure 17: Lakes Entrance wastewater treatment plant temporary odour control trial

8.3 Capital programs and other capital expenditure

Apart from the 'top ten' projects, our capital investment is grouped into either 'programs' that are ongoing throughout the 2018-23 period, or as 'other projects', which are discrete projects driven by compliance or growth objectives, and not considered top 10 projects or capital programs. The 'programs' account for approximately 45% of the proposed capital investment over the five-year regulatory period, and 'other projects' account for approximately 9% of the proposed expenditure from 2018-23. These two groups are shown in Table 30.

	Table 30: Deta	ils of capital 'programs' and 'other projects	;' (not including top 10) ¹¹	
PROGRAM	RELATED OUTCOME(S)	OBJECTIVES	COMPARISON TO WATER PLAN THREE COSTS	FIVE-YEAR TOTAL (\$K)
Information Technology (IT) systems ¹²	 Current levels of water and sewerage services maintained. 	To ensure IT infrastructure supports efficient planning and operational activities. Replace legacy systems no longer supported and replace obsolete hardware.	Similar to Water Plan Three costs	\$2,400
Energy efficiency ¹³	 Commitment to environmental sustainability 	To reduce energy consumption and meet our emissions reduction pledge.	Small increase in expenditure. Note, some of our energy efficiency gains will come from our renewals program.	\$1,270
Plant and equipment ¹⁴	1. Current levels of water and sewerage services maintained.	To ensure plant and equipment is sufficient to provide efficient field based and office activities.	Modest decrease from Water Plan Three costs.	\$2,596
Renewals – sewer ¹⁵	 Current levels of water and sewerage services maintained. Supporting environmental sustainability 	To maintain asset base in working order. To ensure an appropriate balance between maximising asset lifespan and the risk of asset failure.	Significant increase in renewals expenditure proposed, reflecting increase in asset base and replacement of ageing infrastructure.	\$11,560
Renewals – water ^{1s}	 Current levels of water and sewerage services maintained Safe, high quality drinking water supplies delivered. 			\$7,584
Hydraulic modelling¹ ^{s 7}	 Current levels of water and sewerage services maintained. 	To develop robust simulations of sewer and water networks to allow optimised predictions of current and future upgrades needed to maintain service levels, for prudent and efficient expenditure.	Increased capital expenditure on hydraulic modelling compared with Water Plan Three.	\$768
Infiltration ¹⁸	 Commitment to environmental sustainability 	To reduce the volume of infiltration entering our sewer network at Paynesville and therefore reduce the salt content of our recycled water.	Significant increase to improve the quality of recycled water used for irrigation.	\$1,036
SCADA upgrades ¹⁹	 Current levels of water and sewerage services maintained Safe, high quality drinking water supplies delivered. 	To ensure reliable water and sewer system monitoring and control.	Significant reduction in expenditure reflecting the maturity of our SCADA systems.	\$694
Community water fountains ²⁰	 Enhanced liveability and resilience in our region. 	To provide drinking water fountains in high public use areas.	Increase in expenditure reflecting community engagement results (see Chapter 3).	\$120
Other capital projects	Various	To invest in minor upgrades to improve compliance, operational efficiency and ability to meet current levels of services into the future.	Modest increase in expenditure on other projects (not classified as either top 10 or a program)	\$5,569
Total			r	\$33,597

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8.4 Method for developing the capital expenditure program

The following aspects were relevant to the development of the capital program:

• Reference Strategies & Master Plans

Reference strategies and master plans were reviewed/developed to profile the capital expenditure required for the 2018-23 regulatory period (refer to Chapter 1)²¹.

• Renewals¹⁵

The process used in the development of the renewals program was iterative and considered the asset age, type, condition, expected life and criticality. A key input to the process was the 2016 asset valuation process, which provided generic like-for-like replacement costs. Where replacement costs for specific assets were known, these were used in preference to the generic asset valuations. The renewals profile generated was smoothed across the 2018-23 period to ensure consistency in resource requirements for delivering renewals. Workshops were held with subject matter experts to further validate the forecasts¹⁵.

Business cases

Where the need for capital investment was identified within a business reference strategy and further justification was required, a business case was completed²¹.

Risk-based project prioritisation²²

All discrete projects were ranked in order of priority having regard to our risk appetite using the following inputs:

- o The inherent risk of the issue to East Gippsland Water, (before controls).
- The reduction in risk resulting from investment in the control.
- The cost of the control.

Further information relating to the project prioritisation process can be provided upon request.

• P50 estimates

All 'top ten' projects had P50 estimates completed to ensure a robust forecast was achieved for prudent and efficient expenditure¹⁻¹⁰.

• Program development

From the ranked list of prioritised and justified projects, a 20-year program was developed using an iterative process of:

- Smoothing the 20-year program to ensure balanced expenditure over regulatory periods.
- Determining the price impact of including or excluding the lower ranked (lower risk rating) projects in the 2018 price submission.
- Assessing the risk to the business and customers of including or excluding lower ranked projects in the 2018 price submission.

The final program is a result of several iterations of the above process, which progressively resulted in the program being refined from about \$100 million in its early drafts to the \$62 million programmed in the price submission²³.

8.5 Cost efficiencies

The infrastructure investment budget proposed in this price submission incorporates many cost efficiencies developed through delivery of infrastructure programs in previous regulatory periods. Some examples include:

- Delivering the renewals programs as groups of like projects this has proved to significantly reduce the cost of the renewals program through economies of scale and reduced project management and approval costs¹⁵.
- Ensuring planned renewals result in an operational saving (for example, our centrifuge at Woodglen water treatment plant is planned to be replaced with a passive drying bed system, resulting in operational cost savings).
- Assessing the condition of water and sewerage assets scheduled for renewal using techniques such as CCTV, pressure transients and acoustic techniques to determine the need and timing for renewal. This process ensures assets are replaced due to condition, rather than theoretical life span. In many cases assets remain in service beyond their theoretical life while still meeting customer service levels or regulatory requirements¹⁵.
- Taking a risk based approach to determine the need for asset upgrades¹⁵.
- A strong focus on reducing infiltration and inflow to minimise the volume of wastewater requiring treatment and management¹⁸.
- Projects to deliver energy use efficiencies have been justified and prioritised based on financial return. By focusing on reducing electricity usage through efficiency and behind-the-meter renewables rather than offsets, we are reducing our dependence on the retail market and future price fluctuations¹³.

8.6 Capacity to deliver

The projected \$62 million capital budget over five years is well within our capacity to deliver, particularly when considering our previous track record. Our projected total expenditure in the current regulatory period to June 2018 is expected to be within about 2% of the overall five-year budget of \$50 million (present value). A similar performance was achieved during the previous regulatory period. We have every expectation of delivering the program outlined in this submission as planned based on:

- Our proven track record for infrastructure program delivery.
- A significant proportion of the program (\$10 million) being for one critical project (Wy Yung clear water storage replacement).
- Our access to significant engineering design, project management and superintendent resources through our contract with the large international consulting firm, Stantec.
- The relatively smooth rate of planned expenditure over the five-year period.

Key references relating to this chapter:

- 1. PS2018 P50 Assessment Business Case Wy Yung No 2 reinstatement D0C/17/33777
- 2. PS2018 P50 Assessment Business Case Paynesville Reuse DOC/17/33779
- 3. PS2018 P50 Assessment Business Case MSPL Renewal Sarsfield to Johnsonville D0C/17/33778
- 4. PS2018 P50 Assessment Business Case Sarsfield Tank DOC/17/33785
- 5. PS2018 P50 Assessment Business Case Woodglen 1 Embankment Reinstatement D0C/17/33759
- 6. PS2018 P50 Assessment Business Case MSPL Renewal Bairnsdale to Eagle Point D0C/17/33765
- 7. PS2018 P50 Assessment Business Case Mallacoota Clear Water Storage D0C/17/33787
- 8. PS2018 P50 Assessment Business Case Dinner Plain Winter Storage D0C/17/33781
- 9. PS2018 P50 Assessment Business Case Lindenow Tank DOC/17/43322
- 10. PS2018 P50 Assessment Business Case LEWWTP Odour DOC/17/43484
- 11. PS2018-23 Capital expenditure compared with Water Plan 3 DOC/17/40826
- 12. Information and Technology Reference Strategy DOC/16/14655
- 13. Energy Management Reference Strategy DOC/16/36735
- 14. Plant and Equipment Reference Strategy DOC/16/31835
- 15. Asset Renewals Reference Strategy DOC/16/14600
- 16. Sewerage and Water Network Master Plans Reference Strategy DOC/16/7728
- 17. Urban Water Strategy and Drought Preparedness Plan Reference Strategy D0C/16/8746
- 18. Infiltration and Inflow Reference Strategy -DOC/16/22163
- 19. SCADA Reference Strategy DOC/10/19562[v3]
- 20. Customer Engagement Reference Strategy DOC/16/45474
- 21. Reference strategy development flowchart DOC/16/6922
- 22. Project Prioritisation PS2018 capital expenditure program DOC/17/2805
- 23. Summary of EGW board and customer committee involvement in price submission $\ensuremath{\text{DOC}}/17/41282$

9. Return on the regulatory asset base

At a glance:

- Opening regulatory asset base (RAB) at 1 July 2018 expected to be \$146.7 million.
- Overall PREMO rating of standard (high) = 4.5% return on equity.

9.1 Forecast regulatory asset base

Based on the actual expenditure for 2016/17, the closing value for our regulatory asset base (RAB) was 145.5 million.

By incorporating the estimated expenditure for 2017/18 provided by the Essential Services Commission, we expect an opening RAB as at 1 July 2018 of \$146.7 million.

The proposed capital expenditure program for the 2018-23 regulatory period is forecast to increase our RAB in line with Table 31:

\$ million	2018/19	2019/20	2020/21	2021/22	2022/23
Opening asset base	146.73	149.02	156.91	160.06	162.51
plus capital expenditure	9.39	15.54	11.50	11.33	14.06
less disposals	0.10	0.10	0.10	0.10	0.10
less regulatory depreciation	6.99	7.56	8.24	8.78	8.81
Rolled forward RAB	149.02	156.91	160.06	162.51	167.67

Table 31: Forecast value of the RAB for the 2018-23 period¹



The composition of the RAB over the 2018-23 regulatory period is represented in Figure 18,



9.2 Forecast RAB until 2027/28

We forecast expenditure on capital works to increase in the fifth regulatory period, from \$62 million in the 2018-23 period, to \$71 million for 2023-28. This will increase the value of the RAB by the end of 2027/28 as shown in Table 32.

	FOURTH REG PERIOD				FIFTH REG PERIOD					
\$ million	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
Opening asset base	146.73	149.02	156.91	160.06	162.51	167.67	186.22	187.25	183.94	181.16
plus capital expenditure	9.39	15.54	11.50	11.33	14.06	27.94	10.98	7.28	8.15	16.20
less disposals	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
less regulatory depreciation	6.99	7.56	8.24	8.78	8.81	9.29	9.85	10.49	10.82	11.22
Rolled forward RAB	149.02	156.91	160.06	162.51	167.67	186.22	187.25	183.94	181.16	186.04

Table 32: Forecast RAB each year 2018-281

9.3 Regulatory depreciation

Table 33 outlines the forecast regulatory depreciation profile for the period in addition to depreciation on existing assets. All depreciation is calculated on a straight-line basis.

Table 33: Estimated regulatory depreciation 2018-23¹

\$ million									
						FOUR	TH REG PI	RIOD	-
ASSET CLASS	LIFE	BOOK VALUE	% OF TOTAL	ASSET LIFE	2018/19	2019/20	2020/21	2021/22	2022/23
Buildings	20.53	1.04	0.7%	0.14	0.05	0.05	0.05	0.05	0.05
Intangibles	4.00	0.97	0.6%	0.03	0.24	0.24	0.24	0.24	0.00
Motor vehicles	6.00	1.07	0.7%	0.04	0.17	0.17	0.17	0.17	0.17
Office equipment	3.51	0.65	0.4%	0.02	0.18	0.18	0.18	0.09	0.00
Plant & equipment	4.02	0.55	0.4%	0.01	0.13	0.13	0.13	0.13	0.00
Water infrastructure	19.05	75.27	49.9%	9.51	3.85	3.85	3.85	3.85	3.85
Wastewater infrastructure	32.79	71.21	47.2%	15.49	2.11	2.11	2.11	2.11	2.11
Total - existing assets					6.73	6.73	6.73	6.65	6.19

9.4 Government contributions

The capital works program included in this price submission does not include any provision for government contributions.

9.5 Gifted/donated assets

Early in the 2013-18 regulatory period we received multiple large subdivision assets, which increased the value of our gifted/donated assets. As this activity was not typical, the value of gifted/donated assets received in those years was not used to forecast gifted assets in this price submission. Instead, gifted/donated assets received over the last two years and the forecast for 2017/18 have been used (assumed \$1.2 million per annum).

9.6 Customer contributions

Standard customer contributions have been reduced to zero during the 2013-18 regulatory period. The price submission is based on a continuation of the current zero rate for new customer contributions (refer to Chapter 15 for further details).

9.7 Cost of debt

The 10-year trailing average approach provided by the Essential Services Commission has been used to estimate the benchmark cost of debt in the pricing model (including the historic cost of debt values outlined in the 2018 Water Price Review Guidance).

9.8 PREMO rating and the regulated return on equity

Using the PREMO assessment tool provided in the 2018 Water Price Review Guidance, we have assessed our PREMO rating as 'standard' (high). Detail of our assessment is provided in Figure 1 on page 2 and Chapters 1-4. The return on equity applied in the pricing model is 4.5%.

Key references relating to this chapter:

1. Final ESC model - DOC/17/40534

10. Tax allowance

At a glance:

- We expect to enter a tax paying position in 2020/21.
- A company tax rate of 27.5% has been used for each year of the regulatory period.

Since inception of the National Tax Equivalent Regime administered by the Australian Tax Office, we have carried tax losses forward year-on-year. However, for the 2018-23 regulatory period we are expecting to enter a tax paying position in year three (2020/21).

10.1 Price submission tax rates

Based on current taxation legislation (Enterprise Tax Plan No. 2 2017), a company tax rate of 27.5% has been used for each year of the 2018-23 regulatory period.

10.2 Income tax estimate

Table 34 contains the estimated income tax payable for the next two regulatory periods, based on the pricing model outputs:

Table 34: Income tax payable 2018-28¹

	FOURTH REG PERIOD				FIFTH REG PERIOD					
\$ million	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
Tax liability	14	-	0.39	0.80	0.78	0.71	0.72	0.77	0.76	0.81

Key references relating to this chapter:

1. Final ESC model - DOC/17/40534

11. Demand

At a glance:

- Victoria in Future 2016 was used to forecast residential customer growth.
- Non-residential growth was forecast based on trends from our own connection history data.
- Residential and non-residential customer usage was forecast from our own water usage data.
- No significant demand change expected due to prices remaining the same and low chance of water restrictions.
- We will continue to promote water education programs that encourage efficient water use.

11.1 Method

The method for forecasting water demand for the 2018-23 regulatory period involved reviewing and choosing an appropriate growth rate for both residential and non-residential customers from the various sources available including:

- Victoria in Future (2016).
- Forecasts from private demographics company .ID, adopted by East Gippsland Shire Council.
- Historical growth rates and usage from our records.

After reviewing the various growth rate sources, the Victoria in Future (2016) growth rates were adopted to forecast residential demand, being the approximate mid-point between the historical trends from our billing data and the forecasts from the .ID company.

For non-residential connections, growth rates were based on the average of the last four years growth data¹.

Residential and non-residential water usage was calculated using the average of the last four years of usage data.

11.2 Growth rates

Table 35 summarises the adopted growth rates for this price submission compared with the 2013-18 regulatory period.

We have assumed a 1.45% growth rate for residential customers (years one to three) and 1.28% for years four to five, and a 0.53% growth rate for non-residential customers¹.

	Water Plan Three				Price Submission					
	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Residential connections	1.71%	1.46%	1.41%	1.38%	1.45%	1.45%	1.45%	1.45%	1.28%	1.28%
Non residential connections	0.46%	0.45%	0.38%	0.83%	0.53%	0.53%	0.53%	0.53%	0.53%	0.53%
TOTAL CONNECTIONS	1.55%	1.33%	1.28%	1.31%	1.34%	1.34%	1.34%	1.34%	1.19%	1.19%

Table 35: Actual and forecast compound annual growth rates¹

11.3 Demand calculations

The adopted growth rates were used to forecast the total water demand (see Table 36).

We have assumed 146 kilolitres per annum usage for residential customers and 580 kilolitres per annum usage for non-residential customers¹.

	2	Water Plan Three						Price Submission				
	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23		
KILOLITRES PER CONNECTION												
Residential	151	140	146	148	146	146	146	146	146	146		
Non residential	590	581	589	562	580	580	580	580	580	580		
CONSUMPTION MEGALITRES												
Residential	2,966	2,797	2,961	3,036	3,045	3,089	3,134	3,180	3,220	3,262		
Non residential	1,692	1,674	1,702	1,635	1,701	1,710	1,719	1,728	1,737	1,746		
TOTAL CONSUMPTION MEGALITRES	4,658	4,471	4,663	4,671	4,746	4,799	4,853	4,908	4,958	5,008		

Table 36: Actual and projected water demand¹

The demand projections detailed above are based on the following assumptions:

- No additional new district/town water service areas are planned.
- No significant changes in water demand from major non-residential customers.
- No major economic shocks are predicted to affect demand from major non-residential customers.
- The potential increase in demand from hotter future temperatures due to climate change is not material in the relatively short timeframe of the regulatory period. Any increase is balanced by the continued drive for water use efficiency by our customers engendered by our various demand management programs.
- The continuation of permanent water saving rules.
- No water restrictions are triggered during the regulatory period, which would temporarily reduce the demand for water (a reasonable assumption given our target of no more than one in 10-year frequency of stage one or two restrictions and no more than a one in 15-year target frequency for stage three or four water restrictions)².

An analysis of billing information shows the total water demand has remained relatively stable despite an increasing customer base, due to the decline in per household consumption. Since 2008 following the millennium drought, water demand has declined by 10% and over the last four years demand has plateaued to an average 146 kilolitres per household¹.

11.4 Price elasticity of demand

This submission proposes no increase in customer bills, therefore price elasticity has not been considered in our demand forecasts. The tariff mix of 40:60 fixed to variable for average residential customer bills will remain unchanged for the regulatory period.

11.5 Demand management

Consistent with the Victorian Government's Water for Victoria policy, we are committed to educating customers about water use in a bid to influence efficient use and water demand. We do this by promoting initiatives like 'Target Your Water Use' and 'Choose Tap', and supporting the 'Schools Water Efficiency Program'. These state-wide programs encourage wise water use and promote healthy living. The cost of these programs will be met within baseline expenditure.

More details about our demand management program can be found in our recently completed Urban Water Strategy².

11.6 Incorporating demand into operational budgets

Operating expenditure forecasts have been adjusted to allow for these demand projections (for example marginal costs of increased electricity and chemical usage have been included).

Key references relating to this chapter:

- 1. EGW Growth and Demand Projections DOC/17/32065[v2]
- 2. East Gippsland Water Urban Water Strategy DOC/16/18427

12. Form of price control

At a glance:

- 'Individual price cap' form of price control to replace 'weighted average price cap' in the 2018-23 regulatory period.
- Customers will have greater price certainty.
- Prices will be easier to administer and explain.

We are proposing to introduce an 'individual price cap' form of price control in the next regulatory period. This is a change from the 'weighted average price cap' form of control we currently have in place¹.

Introducing an individual price cap form of control will provide customers with greater price certainty and is easier to administer and explain. This control will provide customers with a set price for agreed levels of service and will avoid price adjustments, which may interfere with obtaining the desired tariff outcomes described in Chapter 13.

A clear message from our customer engagement program, described in Chapter 3, is that customers want no increases to bills (outcome three). Feedback from customers to our zero real price path over the 2018-23 regulatory period was positive and this supports the introduction of an individual price cap model.

In summary, the individual price cap form of price control will:

- Meet the preferences of our customers particularly low income and vulnerable customers by giving greater price certainty over the planning period.
- Ensure a clear relationship with the cost of services.
- Weight risk associated with the key assumptions in this price submission (such as demand and electricity prices) more to our organisation.
- Better align services with price to provide improved incentives and price signals to customers about the sustainable use of water resources.
- Allow for simpler messaging to customers (i.e. a simple CPI minus X formula can be used for each year of the regulatory period).

Should water usage and growth significantly exceed what has been forecast during the regulatory period, resulting in higher than forecast revenue in a particular year, we have the discretion to set lower prices than the maximum approved in subsequent years.

Key references relating to this chapter:

1. Review of form of price control PS 2018 internal memo – DOC/17/42046

13. Prices and tariff structures

At a glance:

- This price submission proposes no change to current tariff structures.
- Service tariffs continue to be applied uniformly across all serviced towns (postage stamp pricing).
- Average residential customer bill comprises 60% variable rate, 40% fixed rate for water services.
- Wastewater tariff is a one-part fixed tariff.
- Administration fees for developer gifted/donated assets to be changed to better reflect and recover costs incurred.

Our service tariffs are applied uniformly across all serviced towns and are consistent with the Water Industry Regulatory Order (WIRO). Postage stamp pricing supports the principle of 'same service, same price'. It is also easy for customers to understand and for our business to administer.

East Gippsland Water undertook a major tariff realignment in the 2008-13 regulatory period to ensure tariffs better reflected the cost of providing the service. This led to an increased proportion of revenue being attributed to wastewater services and the introduction of postage stamp pricing across our service areas.

After reviewing our current tariff structures, we propose no change for the 2018-23 regulatory period.

13.1 Water tariff

Our retail water tariff comprises a fixed and variable charge, which we propose to retain. During the 2013-18 regulatory period, realignment was undertaken to reduce the proportion of revenue from fixed charges for water services and increase the proportion of revenue from water usage. With the transition now complete, a 40:60 fixed/volumetric split on water tariffs applies for the average residential customer. This has provided customers with greater control over their bills as they have discretion over their water consumption, and better reflects the fixed and variable cost balance for our business. A detailed breakdown of our water tariff fees is provided in Table 37.

Table 37: 2018-23 water tariffs

TARIFF	PRICE
Water service fee - 20mm	\$201.15
Water service fee - 20mm vacant land	\$112.30
Water service fee - 25mm	\$313.80
Water service fee - 32mm	\$514.96
Water service fee - 40mm	\$804.65
Water service fee - 50mm	\$1,257.27
Water service fee - 75mm	\$2,828.36
Water service fee - 80mm	\$3,218.60
Water service fee - 100mm	\$5,029.08
Water volume fee - per kilolitre	\$2.1470

13.2 Wastewater tariff

The existing wastewater tariff methodology is being retained for the regulatory period. The wastewater tariff is a one-part fixed tariff based on the equivalent tenement (EQT) methodology¹ (see Table 38). The EQT charging principle allows us to collect the amount of revenue needed to cover the cost of providing the service. One EQT is equivalent to the amount of wastewater collected, discharged and treated by an average residential customer.

A copy of our policy relating to the determination of non-residential customer charges using the EQT methodology can be provided upon request.

Table 38: 2018-23 wastewater tariffs

TARIFF	PRICE
Wastewater charge - EQT	\$660.23
Wastewater charge - EQT vacant land	\$330.11

13.3 Trade waste tariff

All customers discharging trade waste to the sewerage system are charged a trade waste tariff^{1 2}. Trade waste customers fall into one of two tariff structures:

Minor trade waste customers

Minor trade waste customers are charged a fixed annual fee to cover costs of compliance and audit inspections (see Table 39).

Table 39: 2018-23 minor trade waste tariff

TARIFF	PRICE
Tradewaste facility charge	\$290.73

• Major trade waste customers

Major trade waste customers are businesses that discharge high volumes and/or high load concentrations of trade waste. Major customers are charged for sampling and the additional costs of treatment in accordance with our trade waste customer charter approved by the Essential Services Commission³ (see Table 40).

TARIFF	PRICE
Chemical oxygen demand charge mg/L	\$0.20
Suspended solids charge mg/L	\$0.06
Annual monitoring charge	\$1,361.52

Table 40: 2018-23 major trade waste tariffs

13.4 Recycled water tariff

A small number of customers receive recycled water from our facilities subject to supply agreements. Depending on the nature of the scheme and when the agreement commenced, these customers are usually charged a fee per megalitre for the recycled water supply, which is metered.

Most recycled water customers also provide a service to us by managing the recycled water usage and in many cases, the infrastructure required to do this. As each arrangement is unique, prices are not uniform.

13.5 Fire services availability charge

Private fire services may be installed without meters provided every fire hose nozzle is kept sealed in an approved manner. Each private fire service is subject to an annual fee (see Table 41), which is equal to 15% of the standard water availability charge (refer to Section 13.1 above). The fire service availability charge is a contribution towards the cost of providing a water service to hose reels, hydrants or sprinkler systems for firefighting purposes.

TARIFF	PRICE
Fire services fee - 20mm	\$30.17
Fire services fee - 25mm	\$47.07
Fire services fee - 32mm	\$77.27
Fire services fee - 40mm	\$120.72
Fire services fee - 50mm	\$188.63
Fire services fee - 80mm	\$482.89
Fire services fee - 100mm	\$754.54
Fire services fee - 150mm	\$754.54

Table 41: 2018-23 fire services availability charge

13.6 Supply by agreement customers

Approximately 300 properties receive water services where the reliability of the service is not guaranteed (for example, via private extensions and supply from bulk supply pipelines). East Gippsland Water has agreements with these customers that specify the conditions under which the water is supplied and relevant charges. These customers incur charges equivalent to tariffs as outlined in Section 13.1.

13.7 Miscellaneous services

In addition to providing water and sewerage services, East Gippsland Water also provides other secondary services (miscellaneous services) as prescribed under the WIRO.

Major miscellaneous charges include:

- Property information statement charges.
- Water connection fees.
- Sewer connection fees.
- Special meter reading charges.
- Administration developer fees.
- Desludging fees.
- Other miscellaneous fees.

The current pricing principles for miscellaneous services have been retained without change for the price submission, except for charges associated with administration fees for developer gifted/donated assets.

This administration fee is currently based on the value of the gifted/donated asset multiplied by a percentage. A change in percentage rates applied to the value of the assets is proposed. This change will see lower value assets receive a larger percentage charge, with a subsequent lowering of the percentage charge for larger valued gifted/donated assets. This better reflects the actual costs incurred by the corporation when administering gifted/donated assets⁴.

Overall, there is no expectation that revenue will be increased from this change in pricing principle; it represents a balancing of cost recovery more reflective of actual costs incurred.

Details of the review into administration fees and other miscellaneous services can be provide upon request⁵.

Table 42 summarises the miscellaneous revenue sources and prices for the 2018-23 period.

MISCELLANEOUS SERVICES	PRICE		
Standard information statement (each) 3-5 days	\$55.30		
Special meter/tenant reading (each)	\$66.36		
Premium information statement (each) 1-2 days	\$82.94		
Private fire service resealing fire hose taps	\$149.30		
Sewerage connection application (each)	\$171.42		
Tapping fee – 20mm (each)	\$171.42		
Tapping fee – 25mm (each)	\$171.42		
Tapping fee - ≥ 32mm (each)	Actual Cost**		
Connection fee meter – 20mm (each)	\$254.41		
Connection fee meter – 25mm (each)	\$392.68		
Connection fee meter $- \ge 32$ mm (each)	Actual Cost**		
Standpipe tokens (each)	\$4.01		
Standpipe metered charge (per kilolitre)	\$4.01		
Desludging fees (per kilolitre)	\$22.12		
Septic waste (per kilolitre)	\$22.12		
Build over easements – new applications	\$87.95		
Plan fees	\$10.00		
Administration fee *	\$10.00		
Non-core miscellaneous services**	Actual Cost**		
Water meter connection rebooking fee	\$60.00		
Water flow test	\$150.00		
DEVELOPMENT PLANNING CHARGES	- Carlos and a second		
Project cost less than or equal to \$5,000	\$400.00		
Project cost between \$5,000 - \$50,000	4% or a minimum of \$900		
Project cost between \$50,001 - \$100,000	5% or a minimum of \$3,500		
Project cost equal to or greater than \$100,001	6% or a minimum of \$5,500		
Project cost equal to or greater than \$100,001	6% or a minimum of \$3,500		

Table 42: 2018-23 Miscellaneous Tariffs

* A customer can apply for a refund (at no charge) once every financial year. The second refund for that financial year will incur a \$10.00 administration charge.

** East Gippsland Water has set prices for all other non-core miscellaneous services on the basis that they will reflect the direct third party or contractor invoice cost plus direct marginal costs of the service provision (including materials and labour and transport) plus a 25% indirect overhead cost.

Key references relating to this chapter:

- 1. Wastewater tariff and trade waste pricing methodology DOC/12/14801
- 2. Trade waste assumptions DOC/17/25614
- 3. East Gippsland Water Trade Waste Customer Charter DOC/12/9387
- 4. Planning charge review 2017/18 DOC/17/17871
- 5. Miscellaneous Services Charges Review DOC/17/24159

14. Adjusting price

At a glance:

• No change.

During the regulatory period, East Gippsland Water may apply to the Essential Services Commission (ESC) to vary approved tariffs or the manner in calculating or determining those tariffs for the pricing period.

This gives us the opportunity to apply to adjust tariffs within the regulatory period for certain events. This helps alleviate the risk associated with approved prices not allowing sufficient revenue if an unforeseen or uncertain event occurs and materially affects the financial position of the corporation.

For this price submission, the primary risks that may result in a requirement for tariff adjustments have been identified as:

- Material decrease in customer water consumption.
- Material increase in electricity costs above the increases already contained in this price submission.
- Natural disasters.
- Extreme weather events.

Key references relating to this chapter:

N/A

15. New customer contributions

At a glance:

- A 'standard' new customer contribution value of zero is proposed for the 2018-23 period.
- A 'negotiated' new customer contribution applies when unplanned (out of sequence) infrastructure is required to service a connection application. This will be negotiated with developers on a case-by-case basis.

During the 2013-18 regulatory period, we progressively reduced the rate of 'standard' new customer contributions to a value of zero in accordance with the Essential Services Commission's 2013 price decision. For the 2018-23 price submission, we will continue to apply the current rate of zero for 'standard' new customer contributions.

However, a 'negotiated' new customer contribution may apply when a development is out of sequence with our infrastructure programs. In this case, we may charge a developer a non-scheduled charge that will recover the most efficient costs associated with bringing forward the provision of the necessary shared assets. This will be done in accordance with our standard operating procedure (167) which accords with the requirements of the Essential Services Commission¹.

Key references relating to this chapter:

1. SOP 167 New Customer Contributions (NCC) Procedures - DOC/12/28728[v2]

16. Financial position

At a glance:

• A comparison of our forecast financial position compared with key financial indicators demonstrates this price submission is financially sound.

Table 43 provides a summary of our forecast financial position using the financial indicators and their corresponding benchmarks provided by the Essential Services Commission in the 2018 Water Price Review Guidance. It also includes the forecast debt position of the corporation for each year of the pricing period.

Table 43: Financial indicators¹

	BENCHMARK	2018/19	2019/20	2020/21	2021/22	2022/23
Interest cover (times)	> 1.5 times	24.7	16.8	17.4	18.2	16.7
Net debt / RAB (Gearing) (%)	< 70%	8%	5%	8%	7%	7%
Internal financing ration (%)	>35%	140%	70%	100%	104%	84%
Funds from operations / net debt (%)*	>10%	42%	34%	39%	42%	37%
Total forecast borrowings (\$ million)		13.0	17.0	17.0	17.0	19.0

* Forecast borrowing levels used, not borrowing levels contained in the pricing model.

When compared with the benchmark indicators provided by the Essential Services Commission, our forecast financial position will remain strong during the 2018-23 regulatory period.

Key references relating to this chapter:

1. Final ESC model - DOC/17/40534