Yarra Valley Water final decision

2018 Water Price Review

29 May 2018

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Essential Services Commission 2018, Yarra Valley Water final decision: 2018 Water Price Review, 29 May

Contents

Summary

In September 2017, Yarra Valley Water provided a submission to us proposing prices for a five year period starting 1 July 2018

In December 2017, we released our draft decision on Yarra Valley Water's price submission.[1] The draft decision set out our preliminary views on Yarra Valley Water's proposals, and invited interested parties to make further submissions. We also held a public meeting in February 2018. In addition to a response by Yarra Valley Water, we received thirteen written submissions on our draft decision, which are available on our website. A list of these submissions is included in Attachment A to this final decision.

After considering feedback, we have made a price determination for Yarra Valley Water.[2] The price determination sets out the maximum prices Yarra Valley Water may charge for prescribed services (or the manner in which its prices are to be calculated, determined, or otherwise regulated) for the five year period from 1 July 2018 (2018–23). This final decision sets out our supporting reasons and analysis for the price determination.

> Where our final decision on a particular aspect is unchanged from our draft decision, we have not detailed the supporting reasons in our final decision. Rather, we have noted that our final decision confirms the reasons and position we reached in the draft decision.
>
> Where we have reached a different decision to that proposed in our draft decision, or where new information required our consideration, we have set out our reasons in full in this final decision. This final decision should be read in conjunction with our draft decision.

Customer prices will fall from 1 July 2018

Our final decision approves a revenue requirement of $4,771.9 million over the five year period starting 1 July 2018 (see pages 9 to 10).[3] This is $18.6 million or 0.4 per cent lower than our draft

[1] Clause 16 of the Water Industry Regulatory Order (WIRO) 2014 requires us to issue a draft decision. Yarra Valley Water's price submission and our draft decision are available at www.esc.vic.gov.au/waterpricereview.

[2] Before the commencement of a regulatory period, clause 10 of the WIRO 2014 requires us to make a price determination which determines the maximum prices a water corporation may charge, or the manner in which its prices are to be calculated, determined or otherwise regulated during the regulatory period. See Essential Services Commission 2018, *Yarra Valley Water Determination: 1 July 2018 – 30 June 2023*, 29 May.

[3] The revenue requirement is the forecast amount a water corporation needs to deliver on customer outcomes, government policy, and obligations monitored by technical regulators including the Environment Protection Authority Victoria and the Department of Health and Human Services. Along with forecast demand, it is an input to calculating the prices to be charged by a water corporation.

decision, and mainly reflects our updates to the forecast cost of debt, as anticipated in our draft decision.

On average, Yarra Valley Water's prices will fall from 1 July 2018. A summary of approved maximum prices for major services delivered by Yarra Valley Water is set out on page 26. The estimated typical bills for residential customer groups under our final decision are provided in Table A. Not including inflation, compared with 2017–18, the estimated annual bill for a residential owner occupier will fall by around $20 in 2018–19, and fall by around $9 for a residential tenant. The bill paid by a customer will vary depending on water use, prices for fixed and variable tariffs, and other charges.

Table A Estimated typical residential water and sewerage bills
$ million 2018-19

Customer group	Average consumption (kL p.a.)	2017-18 annual bill	2018-19 annual bill	2022-23 annual bill
Residential (Owner occupier)	150	$1,079[a]	$1,059	$1,018
Residential (Tenant)	150	$534[a]	$525	$504

[a] Following a $100 rebate paid to customers from a government efficiency review

Note: Typical bills include water and sewerage charges and any applicable rebates based on average water use. Annual bills exclude the parks and drainage charges. Numbers have been rounded

Yarra Valley Water will improve services

Our final decision approves prices that will allow Yarra Valley Water to deliver on its customer service commitments, government policy, and obligations monitored by the Environment Protection Authority Victoria and the Department of Health and Human Services.

Some of the ways Yarra Valley Water plans to improve outcomes for customers are by:

- extending access to services and programs for disadvantaged customers
- increasing rebates for customers who experience multiple service failures
- offering a discount for customers that opt into e-billing
- upgrading its water network to address population growth and climate change.

Tariff structures are the same

Consistent with our draft decision, our final decision approves Yarra Valley Water's proposed tariff structures, which are the same as its current structures (see pages 23 to 26 for our assessment).

For water services, Yarra Valley Water proposed a fixed service charge and a variable component that depends on water use. For residential customers, the variable component includes an inclining block structure where prices increase as higher amounts of water are used. For sewerage services, Yarra Valley Water proposed a fixed service charge and a variable component.

Our final decision also approves Yarra Valley Water's proposed revenue cap form of price control, with a minor amendment to its price adjustment formula (see page 23). This means the revenue Yarra Valley Water can earn is fixed at the start of its regulatory period, but customer prices may vary annually – within pre-defined limits – so the corporation can meet its revenue requirement. Yarra Valley Water currently uses a revenue cap.

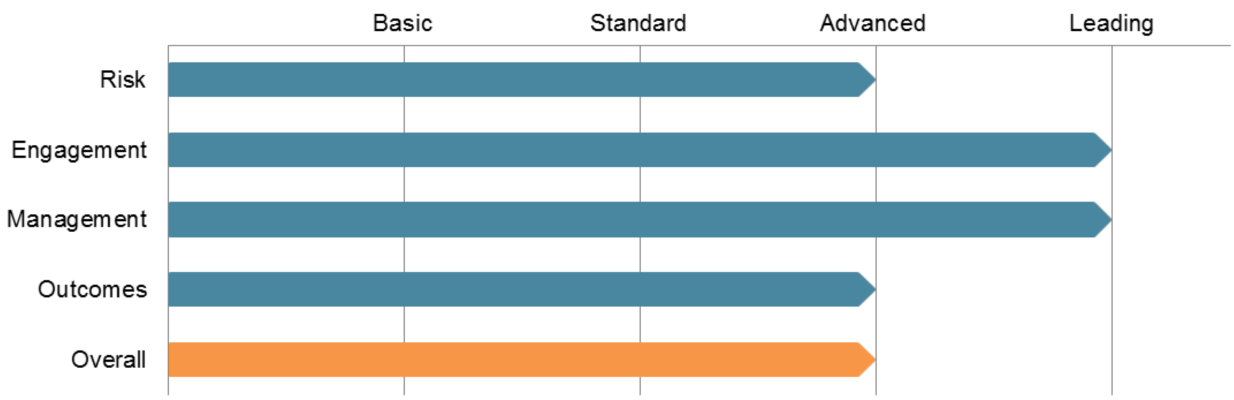
Yarra Valley Water's price submission is rated as 'Advanced' under PREMO

Consistent with our draft decision, our final decision accepts Yarra Valley Water's PREMO self-rating of its submission of 'Advanced'. In support of Yarra Valley Water's PREMO rating, we note:

- Yarra Valley Water's engagement, which provided a fair opportunity for customers to participate and influence its proposals. We note the quality of information Yarra Valley Water provided to its citizens' jury and its decision to accept recommendations of the jury in its price submission.
- Yarra Valley Water's efficiency improvement rate for operating expenditure, which is high relative to other water corporations. This contributes to the price declines proposed by Yarra Valley Water.
- Yarra Valley Water's commitment to returning revenue to customers through lower prices, if it does not meet service targets, demonstrating greater accountability.

Figure A summarises our final decision on PREMO. More detail on our assessment of Yarra Valley Water's PREMO rating is provided in Chapter 3.

Figure A PREMO – Yarra Valley Water final decision summary



Our PREMO rating is an assessment of the water corporation's price submission. It is not an assessment of the water corporation itself.

1. Our role and approach to water pricing

We are Victoria's independent economic regulator

Our role in the water industry is based on the Water Industry Regulatory Order 2014 (WIRO) which is made under the *Water Industry Act 1994* (Vic) (WI Act) and sits within the broader context of the *Essential Services Commission Act 2001* (Vic) (ESC Act). Our role under the WIRO includes regulating the prices and monitoring service standards of the 19 water corporations operating in Victoria.

We are reviewing the prices 17 water corporations propose to charge customers from 1 July 2018

Our review of the prices proposed by the water corporations covers the prescribed services listed in the WIRO.[4] The prescribed services include retail water and sewerage services, and bulk water and sewerage services delivered by the water corporations.[5]

Our task is to assess price submissions by water corporations against the legal framework that governs our role, and make a price determination that takes effect from 1 July 2018. We make a price determination after issuing a draft decision, and considering feedback from interested parties.

The price determination specifies the maximum prices a water corporation may charge for prescribed services, or the manner in which prices are to be calculated, determined or otherwise regulated. We also issue a final decision that sets out our supporting reasons for our price determination.

We assess prices against the WIRO and other legal requirements

Clause 11 of the WIRO specifies the mandatory factors we must have regard to when making a price determination, including matters set out in the WIRO, the WI Act and the ESC Act. In making a price determination, we have had regard to each of the matters required by clause 11 of the WIRO, including:

- the objectives and matters specified in clause 8 of the WIRO, which include economic efficiency and viability matters, industry specific matters, customer matters, health, safety, environmental and social matters, and other matters which are specified in sections 8 and 8A of the ESC Act and section 4C of the WI Act

[4] The review excludes Melbourne Water and Goulburn-Murray Water. In 2016 we approved prices for Melbourne Water to 30 June 2021 and for Goulburn-Murray Water to 30 June 2020.

[5] The prescribed services are listed at clause 7(b) of the WIRO.

- the matters specified in our guidance[6]
- the principle that prices should be easily understood by customers and provide signals about the efficient costs of providing services, while avoiding price shocks where possible
- the principle that prices should take into account the interests of customers of the regulated entity, including low income and vulnerable customers.

Our consideration of legal requirements document lists the specific objectives and the various matters the commission must have regard to when making a price determination and provides a guide to where we have done so for our price determination for Yarra Valley Water.[7]

In 2016, we issued guidance to Yarra Valley Water to inform its price submission. The guidance set out how we will assess Yarra Valley Water's submission against the matters we must consider under clause 11 of the WIRO.

If we consider the price submission has adequate regard for the matters in clause 11 of the WIRO and complies with our guidance, we must approve Yarra Valley Water's proposed prices.[8]

If we consider the submission does not have adequate regard for the matters specified in clause 11 of the WIRO or comply with our guidance, we may specify maximum prices, or the manner in which prices are to be calculated, determined or otherwise regulated.[9]

The power for water corporations to impose fees is set out in the *Water Act 1989* (Vic) (Water Act). Provisions in the Water Act also govern the manner in which water corporations may impose fees, and it is for each water corporation to ensure that it complies with them.[10]

The 2018 price review is the first we've undertaken under our new water pricing approach

In 2014, the Victorian Government reviewed and revised the WIRO. The changes allowed us more flexibility to decide on the pricing approach we use in Victoria's water sector. In April 2015 we released a consultation paper to start reviewing our pricing approach.[11]

[6] Essential Services Commission 2016, *2018 Water Price Review: Guidance paper*, November.

[7] Essential Services Commission 2018, *Yarra Valley Water final decision, 2018 Water Price Review – commission's consideration of legal requirements*, 29 May. This is available at www.esc.vic.gov.au/waterpricereview.

[8] This is a requirement of the WIRO, clause 14(b).

[9] This is provided for under the WIRO, clause 14(b)(i).

[10] See Part 13, Division 5 of the Water Act .

[11] Essential Services Commission 2015, *Review of Water Pricing Approach: Consultation paper*, April.

Over 2015, we held a series of workshops and hosted a conference (in November) to hear from stakeholders and explore alternative ways to approach water pricing.

In May 2016, we released a position paper setting out our proposed new pricing approach, and invited submissions.[12] We met with each water corporation and other interested parties to help inform their submissions. Submissions were supportive of the overall proposal, in particular the greater focus on customer engagement and value.

We finalised our new approach to water pricing in October 2016.[13]

Our new pricing approach builds on many aspects of the previous approach. We continue to use the building blocks to estimate the revenue requirement for a water corporation.[14] Our guidance explains the building blocks and how we use it to estimate the revenue requirement.[15]

Among the key changes, the new approach introduces new incentives to help ensure water corporations deliver the outcomes most valued by customers. Our new PREMO framework rewards stronger customer value propositions in price submissions, and an early draft decision is available for price submissions we can assess in a short timeframe.[16] The PREMO incentive is described next.

Our consultation on the pricing approach informed the guidance we issued water corporations in November 2016 to inform price submissions for the 2018 water price review.

PREMO

PREMO stands for **P**erformance, **R**isk, **E**ngagement, **M**anagement, and **O**utcomes. The purpose of PREMO is to provide an incentive for water corporations to deliver outcomes most valued by customers. It includes incentives for a water corporation to engage with customers to understand their priorities and concerns, and take these into account.

PREMO links the return on equity allowed in the revenue requirement to the value delivered by a water corporation to its customers. Under PREMO, a higher level of ambition in terms of delivering customer value results in a higher return on equity.

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[12] Essential Services Commission 2016, *A new model for pricing services in Victoria's water sector: Position paper*, May.

[13] For more detail on the new water pricing approach see: Essential Services Commission 2016, *Water Pricing Framework and Approach: Implementing PREMO from 2018*, October.

[14] The revenue requirement is the forecast amount that a water corporation needs to deliver on customer outcomes, government policy, and obligations monitored by technical regulators including the Environment Protection Authority Victoria and the Department of Health and Human Services.

[15] Essential Services Commission 2016, *Guidance paper*, op. cit., pp. 8–9.

[16] In December 2017 we issued early draft decisions for East Gippsland Water, South East Water, Westernport Water and Yarra Valley Water.

The 2018 water price review is the first time we've applied our PREMO incentive mechanism. A water corporation's ambition in terms of delivering customer value is being assessed against four elements of PREMO – Risk, Engagement, Management and Outcomes.[17]

A water corporation must self-assess and propose a rating for its price submission as 'Leading', 'Advanced', 'Standard' or 'Basic'. Its proposed return on equity will then reflect its PREMO rating. A 'Leading' submission has the highest return on equity, and a 'Basic' submission the lowest. We assess the justification for the PREMO rating, and also rate the price submission. This process determines the return on equity reflected in the revenue requirement.[18]

[17] The Performance element of PREMO will be assessed at the review following the 2018 water price review.

[18] The PREMO process is described in: Essential Services Commission 2016, *Guidance paper*, op. cit., pp. 45–49.

2. Our assessment of Yarra Valley Water's price submission

We have made our price determination for Yarra Valley Water after considering: Yarra Valley Water's price submission, its responses to our queries and our draft decision, and written submissions from interested parties, including in response to our draft decision (a list of submissions responding to our draft decision is provided in Appendix A). We also held a public meeting in February on our draft decision to receive feedback.

Any reports, submissions, or correspondence provided to us which are material to our consideration of Yarra Valley Water's price submission are available on our website (to the extent the material is not confidential).

Yarra Valley Water's price submission and financial model presented clear and comprehensive information to support its proposals. Yarra Valley Water also provided evidence that its engagement sought to capture the main priorities and concerns of customers, and that it has taken this feedback into account (see customer engagement on pages 6 and 7).

Our guidance included a number of matters water corporations must address in their price submissions. Yarra Valley Water's price submission addressed each of these matters, with our initial assessment set out in our draft decision. Our final decision is set out on the following pages.

All financial values referred to in this chapter are in $2017-18, unless otherwise specified.

Regulatory period

Our draft decision accepted the five year regulatory period (1 July 2018 to 30 June 2023) proposed by Yarra Valley Water in its price submission. Our guidance proposed to approve a five year regulatory period, subject to any alternative and justified proposal.[19]

In response to our draft decision, Consumer Action Law Centre recommended the regulatory period should be the same for all water corporations, unless there are special circumstances.[20] In support of this, it noted factors such as greater community attention when all price reviews are undertaken at the same time.

Our final decision is to approve the five year regulatory period proposed by Yarra Valley Water. This is the same period we have approved for the other three final decisions released at this time.

Customer engagement

Our guidance required Yarra Valley Water to engage with customers to inform its price submission. The engagement by Yarra Valley Water:

- took place between March 2016 and September 2017
- used a range of methods including face-to-face interviews, online surveys, focus groups, and a citizens' jury – the citizens' jury was a deliberative process in which a representative group of customers met for five and half days over four months
- covered matters such as the outcomes to be delivered, guaranteed service levels, tariff structures, and price and service trade-offs. The citizens' jury provided recommendations to Yarra Valley Water on 'a balance between price and service which is fair for everyone'.[21]

More detail on Yarra Valley Water's engagement is available in its price submission.[22]

Evidence that Yarra Valley Water's engagement influenced its price submission includes it accepting eight recommendations of the citizens' jury in full. It accepted the remaining two recommendations with some minor variation.[23]

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[19] For detail on the reasons for using five years as the default regulatory period, see: Essential Services Commission 2016, *Guidance paper*, op. cit., p. 21.

[20] Consumer Action Law Centre 2018, *Submission: Comment on Early Draft Decisions*, 13 March, pp. 5–6.

[21] Yarra Valley Water 2017, *Price submission: Water*, p. 6.

[22] Yarra Valley Water 2017, op. cit., pp. 18–28.

[23] Yarra Valley Water 2017, op. cit., pp. 150 –170.

The influence of Yarra Valley Water's engagement on its proposals supports the objectives in our pricing framework relating to efficiency and the interests of consumers.[24]

In a submission responding to our draft decision, Consumer Action Law Centre suggested we could play a greater role to promote best practice customer engagement and identify areas for improvement.[25] We note that following our price review, we will continue to work with water corporations to promote best practice customer engagement.

Outcomes

The outcomes Yarra Valley Water proposes to deliver over the five years starting 1 July 2018 are:

- safe drinking water
- reliable water and sewerage
- timely response and restoration
- modern flexible service
- fair access and assistance for all
- care for and protect the environment
- water availability and conservation.

Some of the ways Yarra Valley Water plans to deliver on these outcomes for customers are by:

- reducing water and sewerage prices
- extending access to services and programs for disadvantaged customers
- increasing rebates for customers who experience multiple service failures
- offering a discount for customers that opt into e-billing
- upgrading its water network to address population growth and climate change.

Yarra Valley Water's proposed measures and targets for reporting against these outcomes are listed in appendix 5 of Yarra Valley Water's price submission. Yarra Valley Water has committed to reporting annually to customers on its performance against these measures and targets. Information about its performance will be on its website, social media and inserts with bills.

For each outcome where Yarra Valley Water does not meet the specified target it proposes to lower prices in the following year to reduce the revenue recovered from customers by $1.5 million. Its approach to any underperformance is set out at page 32 of its price submission.

[24] See for example, WIRO clauses 8(b)(i), 8(b)(ii), 8(b)(iii), 11(d)(iii), and ESC Act Sections 8(1), 8A(1)(a).

[25] Consumer Action Law Centre 2018, *Early Draft Decisions*, op. cit., p. 4.

Early in 2018-19, we will engage with Yarra Valley Water to finalise measures and targets and how it will report to customers on its performance against Outcomes. Its performance will inform our assessment during future price reviews as part of the Performance element of PREMO assessments.

Service Standards

Yarra Valley Water has also provided a list of service standards relating to reliability and attending faults that it will include in its customer charter. These service standards and Yarra Valley Water's targets until 2023 are set out in Appendix B.

In a submission on our draft decision, Consumer Action Law Centre noted a range of ambitions by water corporations when it comes to proposed service standards and that water corporations should be encouraged to 'improve service standards over time'.[26] We note that Yarra Valley Water proposed reducing some standards for reliability and attending faults to align with current service levels, an approach that reflects feedback from customers who took part in its Citizens' Jury.

We accept there are arguments for maintaining or decreasing service levels over time particular where engagement identifies customers are satisfied with the existing level of service or do not support increasing expenditure to deliver improved service. We expect water corporations to consider customer preferences when forming these service targets.

> Service standards relating to reliability and attending faults are set out in Appendix B and form part of the manner in which Yarra Valley Water's services are regulated.

Guaranteed service levels

Guaranteed service levels (GSLs) define a water corporation's commitment to deliver a specified level of service. For each GSL, a water corporation commits to a payment or a rebate on bills to those who have received a level of service below the guaranteed level. We expect water corporations to include GSLs in its customer charter.

Yarra Valley Water's proposed GSLs are set out on pages 96 and 97 of its price submission. It proposed to revise some of its existing GSLs, and introduce new GSLs relating to water flow rate, response time to customer letters, and water quality complaints.

In our draft decision we provided an overview of Yarra Valley Water's proposed GSLs.

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[26] Consumer Action Law Centre 2018, *Early Draft Decisions*, op. cit., p. 7.

In submissions responding to our draft decision, Graeme Strachan[27] and Mark Fielding[28] commented on Yarra Valley Water's proposed GSLs. The submission by Consumer Action Law Centre supported increasing payments for GSLs so they are 'not losing their value over time'.[29]

In relation to the views of Consumer Action Law Action Centre on GSL payment amounts, we note that Yarra Valley Water will increase the customer payment amounts for GSLs related to sewerage spills, but maintain existing payment amounts for others, based on feedback from its engagement.

We have considered the comments raised in response to our draft decision. However we note that Yarra Valley Water consulted on its GSLs through a citizens' jury and its customer advisory committee, and has adopted most of the recommendations arising from this consultation. We therefore consider Yarra Valley Water's proposed GSLs reflect the most important aspects of service delivery identified by customers.

For these reasons, our final decision approves Yarra Valley Water's proposed GSLs.

Yarra Valley Water's GSLs are set out in Appendix C.

Yarra Valley Water's commitment to GSL payments should these service levels not be met, forms part of the manner in which Yarra Valley Water's services are regulated.

Revenue requirement

The revenue requirement is the forecast amount a water corporation needs to deliver on customer outcomes, government policy, and obligations monitored by technical regulators including Environment Protection Authority Victoria and the Department of Health and Human Services.[30] Along with forecast demand, it is an input to calculating prices.

Our draft decision accepted Yarra Valley Water's proposed revenue requirement of $4,790.4 million over a five year period starting 1 July 2018.

Our final decision approves a lower revenue requirement of $4,771.9 million. This reflects our final decision on each element that comprises the revenue requirement, as set out in Table 2.1.

[27] Graeme Strachan 2018, *Submission,* 14 January 2018

[28] Mark Fielding 2018, *Submission,* 3 April 2018

[29] Consumer Action Law Centre 2018, *Early Draft Decisions*, op. cit.

[30] We met with officers of the Department of Environment, Land, Water and Planning, Department of Health and Human Services, and Environment Protection Authority Victoria, to discuss their expectations of Yarra Valley Water in the regulatory period from 1 July 2018. We had regard to their views in our draft and final decisions.

The reduction in our final decision is mainly due to adjustments we made to Yarra Valley Water's forecast return on assets, which reflects the updates to the cost of debt (see pages 19 to 20), anticipated in our draft decision. Also, in its submission responding to our draft decision, Yarra Valley Water updated its expected revenue forecast for 2017-18 due to higher than forecast demand, and advised the excess revenue would be returned to customers in 2018-19 and 2019-20. This has the effect of reducing the revenue requirement for the 2018–23 regulatory period compared with the amount in our draft decision.

Adjustments to the revenue requirement since our draft decision are set out at Table 2.2, with the reasons set out in the following sections.

Table 2.1 Final decision – Revenue requirement
$ million 2017-18

	2018-19	2019-20	2020-21	2021-22	2022-23	Total
Operating expenditure	686.4	678.4	664.7	663.0	661.6	3,354.0
Return on assets	169.6	173.6	178.1	182.2	184.8	888.3
Regulatory depreciation	96.1	99.6	95.7	97.0	99.3	487.7
Adjustments from last period[a]	-11.4	-11.4	0.0	0.0	0.0	-22.7
Tax allowance	10.9	11.9	13.7	13.8	14.3	64.6
Final decision – revenue requirement	**951.5**	**952.2**	**952.2**	**956.0**	**960.0**	**4,771.9**

[a] The adjustments in 2018-19 and 2019-20 are amounts Yarra Valley Water expects to return to customers due to earning revenue above its revenue cap in prior years

Note: Numbers have been rounded

Table 2.2 Adjustments to draft decision revenue requirement
$ million 2017-18

	2018-19	2019-20	2020-21	2021-22	2022-23	Total
Draft decision – revenue requirement	**954.0**	**958.5**	**955.5**	**959.3**	**963.2**	**4,790.4**
Operating expenditure	3.9	0.1	0.1	0.1	0.3	4.5
Return on assets	-2.9	-2.9	-3.0	-3.1	-3.1	-15.1
Adjustments from last period	-2.7	-2.7	0.0	0.0	0.0	-5.3
Tax allowance	-0.8	-0.8	-0.4	-0.4	-0.4	-2.7
Total adjustments	**-2.4**	**-6.3**	**-3.3**	**-3.3**	**-3.2**	**-18.6**
Final decision – revenue requirement	**951.5**	**952.2**	**952.2**	**956.0**	**960.0**	**4,771.9**

Note: Numbers have been rounded

Operating expenditure

Operating expenditure is an input to the revenue requirement. In our draft decision (pages 9 to 12), we proposed to accept Yarra Valley Water's operating expenditure forecast of $3,349.5 million for the 2018–23 period. The reasons for this were:

- Evidence indicating its baseline controllable operating expenditure reflects an efficient benchmark.[31]
- The relatively high efficiency improvement rate of 2.5 per cent per year, which is greater than its forecast customer growth of 1.7 per cent per year.
- Yarra Valley Water has absorbed forecast increases in wages (above inflation) and electricity prices within its proposed efficiency improvement targets, where some other corporations have sought additional expenditure for these items. Yarra Valley Water only sought additional expenditure for two items which were both new initiatives arising directly from its citizens' jury recommendations.

[31] Controllable costs are those that can be directly or indirectly influenced by a water corporation's decisions.

We noted in our draft decision that we would update the forecast non-controllable operating expenditure for our final decision, and also adjust for the latest inflation and external bulk charges data.[32]

Yarra Valley Water's response to our draft decision did not provide any new information on our draft decision for operating expenditure. No new considerations were presented in submissions received following the draft decision which caused us to change our views on operating expenditure.

For non-controllable operating expenditure, we have adjusted Yarra Valley Water's forecasts where required based on the latest information received from the relevant regulatory authorities on their licence fees and the environmental contribution. We have also taken into account the latest data on inflation and external bulk charges.

For the environmental contribution, we have used the 2018-19 value provided by the Department of Environment, Land, Water and Planning and assumed that this will remain flat in nominal terms (decline in real terms) across the 2018–23 regulatory period.

We have assumed the licence fees for the Department of Health and Human Services, the Environment Protection Authority Victoria and the Essential Services Commission remain flat in real terms across the period, but with a 50 per cent increase for our commission fee in 2022-23 to align with our regulatory review cycle.[33]

We have increased Yarra Valley Water's forecast non-controllable operating expenditure by $4.54 million across the 2018–23 period, resulting from the following adjustments:

- decreasing the Department of Health and Human Services licence fee by $0.023 million per year (a total decrease of $0.11 million)
- decreasing the forecast for our commission licence fee by $0.003 million per year from 2018-19 to 2021-22, and increasing the forecast for the fee by $0.146 million in 2022-23 (an overall increase of $0.14 million)
- decreasing the Environment Protection Authority Victoria licence fee by $0.008 million per year (a total of $0.04 million)
- adopting a forecast for the environmental contribution of $42.06 million for 2018-19, and assuming this declines this across the remainder of the period in real terms (an overall increase of $0.79 million)

[32] Non-controllable costs are those that cannot be directly or indirectly influenced by a water corporation's decisions.

[33] The Department of Health and Human Services and the Environment Protection Authority Victoria provided their latest 2016-17 licence fees. We have also based our forecast on our 2016-17 commission licence fee.

- increasing external bulk water and sewerage charges by $3.77 million in 2018-19 based on Melbourne Water's recently approved tariffs for that year.

Overall, non-controllable operating expenditure will increase by $17.02 million from 2017-18 to 2018-19, due primarily to the increase in the environmental contribution from $29.88 million to $42.06 million and the increase in external bulk water charges from $501.31 million to $506.45 million. We note that for metropolitan water corporations, which purchase bulk water and sewerage services from Melbourne Water, the proportion of non-controllable operating expenditure is large relative to the regional water corporations which harvest their own water supply and operate their own sewerage treatment plants.[34]

Table 2.3 sets out our adjustments for non-controllable operating expenditure. Table 2.4 sets out the benchmark values for licence fees we have adopted for our final decision.

Table 2.3 Adjustments to operating expenditure
$ million 2017-18

	2018-19	2019-20	2020-21	2021-22	2022-23	Total
Draft decision – total operating expenditure	**682.5**	**678.2**	**664.5**	**662.9**	**661.3**	**3,349.5**
Licence fees	-0.03	-0.03	-0.03	-0.03	0.12	-0.02
Environmental contribution	0.16	0.16	0.16	0.15	0.15	0.79
External bulk charges	3.77	0.00	0.00	0.00	0.00	3.77
Total adjustments to non-controllable costs	**3.91**	**0.13**	**0.12**	**0.12**	**0.27**	**4.54**
Final decision – total operating expenditure	**686.4**	**678.4**	**664.7**	**663.0**	**661.6**	**3,354.0**

Note: Numbers have been rounded

We have adopted the benchmark for operating expenditure set out in Table 2.4 for the purpose of making our final decision on Yarra Valley Water's revenue requirement (Table 2.1). We consider

[34] This was raised in a submission from Mark Fielding. Bulk services are considered non-controllable costs because the commission approves the bulk water and sewerage prices, and these cannot be negotiated by the water retailers.

Yarra Valley Water's approach to forecasting controllable operating expenditure, alongside our $4.54 million increase to the non-controllable expenditure, is consistent with the requirements of the Water Industry Regulatory Order 2014 (WIRO) and the criteria for prudent and efficient expenditure outlined in our guidance.[35]

Table 2.4 Final decision – Operating expenditure
$ million 2017-18

	2018-19	2019-20	2020-21	2021-22	2022-23	Total
Controllable costs	**136.9**	**136.0**	**135.0**	**133.9**	**132.7**	**674.4**
Non-controllable costs	**549.5**	**542.4**	**529.7**	**529.1**	**528.9**	**2,679.6**
Bulk services[a]	506.4	500.3	488.5	488.9	489.2	2,473.4
Environmental contribution[b]	42.1	41.1	40.2	39.3	38.4	201.0
Licence fees – ESC[c]	0.60	0.60	0.60	0.60	0.90	3.29
Licence fees – DHHS[c]	0.28	0.28	0.28	0.28	0.28	1.39
Licence fees – EPA[c]	0.09	0.09	0.09	0.09	0.09	0.46
Final decision – operating expenditure	**686.4**	**678.4**	**664.7**	**663.0**	**661.6**	**3,354.0**

[a] Bulk services covers the supply of bulk water and sewerage services

[b] The Environmental Contribution collects funds from water corporations under the WI Act

[c] Licence fees are paid to cover costs incurred by Department of Health and Human Services, Environment Protection Authority Victoria, and the Essential Services Commission in their regulatory activities related to the water corporation

Note: Numbers have been rounded

The benchmark operating expenditure that we have adopted for Yarra Valley Water does not represent the amount that Yarra Valley Water is required to spend or allocate to particular operational, maintenance and administrative activities. Rather, it represents assumptions about the

[35] Essential Services Commission 2016, *Guidance paper*, op. cit., p. 31.

overall level of operating expenditure (to be recovered through prices) that we consider sufficient to operate the business and to provide services over the regulatory period.

Regulatory asset base

The regulatory asset base is used to estimate the return on assets and regulatory depreciation in the revenue requirement. Our guidance required Yarra Valley Water to propose its:

- closing regulatory asset base at 30 June 2017
- forecast regulatory asset base for each year of the regulatory period from 1 July 2018.

Closing regulatory asset base

We update the regulatory asset base to reflect actual capital expenditure, government and customer contributions, and asset disposals for the period to 30 June 2017. This helps to ensure prices reflect the actual expenditure of a water corporation.

Our draft decision accepted Yarra Valley Water's proposed closing regulatory asset base for 30 June 2017 of $3,938.4 million because:

- Yarra Valley Water's actual net capital expenditure for the period from 2012-13 to 2016-17 was $221 million lower than the forecast used to approve prices for the period from 1 July 2013.[36] [37]
- Yarra Valley Water calculated its closing regulatory asset base in accordance with the requirements of our guidance.

No new considerations were presented in submissions received following the draft decision which caused us to change our views on the closing regulatory asset base.

Our final decision approves a closing regulatory asset base at 30 June 2017 of $3,938.4 million. The calculations are provided at Table 2.5.

[36] Net capital expenditure is calculated by deducting government and customer contributions from gross capital expenditure.

[37] We take a risk-based approach to including past capital expenditure in the regulatory asset base. We undertake a prudency and efficiency review where a water corporation has exceeded its net capital expenditure forecasts by more than 10 per cent. We believe this approach is reasonable given capital expenditure can be relatively 'lumpy' in nature.

Table 2.5 Final decision – Closing regulatory asset base
$ million 2017-18

	2012-13	2013-14	2014-15	2015-16	2016-17
Opening RAB at 1 July	3,418.2	3,579.7	3,660.5	3,717.2	3,841.9
Plus gross capital expenditure	252.1	211.1	181.2	257.1	227.4
Less government contributions	3.8	0.0	0.0	0.0	0.0
Less customer contributions	25.8	31.5	37.9	50.3	47.3
Less proceeds from disposals	0.3	0.9	2.3	6.1	2.0
Less regulatory depreciation	60.7	97.9	84.3	75.9	81.6
Closing RAB at 30 June	**3,579.7**	**3,660.5**	**3,717.2**	**3,841.9**	**3,938.4**

Note: Numbers have been rounded

Forecast regulatory asset base

The forecast regulatory asset base is calculated having regard to the closing asset base, and forecasts for capital expenditure, government and customer contributions, and asset disposals.

Our draft decision accepted Yarra Valley Water's forecast regulatory asset base for the period from 1 July 2018, because we were satisfied it met the requirements of our guidance.

Table 2.6 sets out our final decision on Yarra Valley Water's forecast regulatory asset base from 1 July 2018, which is the same as our draft decision.[38] We are satisfied that Yarra Valley Water's proposed forecast regulatory asset base meets the requirements of our guidance.

[38] Our guidance required water corporations to provide an estimate of the components of its regulatory asset base for 2017-18. This is so we can assess the opening asset base for 1 July 2018. Our guidance noted that where the 2017-18 forecasts for net capital expenditure (gross capital expenditure less government and customer contributions) is lower than the forecast benchmark for that year in its 2013 price determination, the lower amount must be used. The estimates for 2017-18 will be confirmed at the price review following the 2018 water price review.

Table 2.6 Final decision – Forecast regulatory asset base
$ million 2017-18

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Opening RAB at 1 July	3,938.4	4,058.1	4,153.7	4,251.9	4,374.8	4,448.7
Plus gross capital expenditure	248.3	238.8	245.8	263.4	214.4	194.4
Less government contributions	0.0	0.0	0.0	0.0	0.0	0.0
Less customer contributions	42.7	46.1	47.0	43.8	42.5	41.9
Less proceeds from disposals	1.0	1.0	1.0	1.0	1.0	1.0
Less regulatory depreciation	84.9	96.1	99.6	95.7	97.0	99.3
Closing RAB at 30 June	**4,058.1**	**4,153.7**	**4,251.9**	**4,374.8**	**4,448.7**	**4,500.9**

Note: Numbers have been rounded

Capital expenditure

Capital expenditure is an input to estimating the regulatory asset base. In our draft decision (pages 14 to 17), we proposed to accept Yarra Valley Water's capital expenditure forecast of $1,156.9 million for the 2018–23 period. The reasons for this were:

- Yarra Valley Water's price submission and business cases provided evidence that its forecasts for capital expenditure are efficient.
- We consider the planned capital expenditure program is achievable, given Yarra Valley Water's past track record delivering its capital expenditure program.
- Yarra Valley Water has an appropriate approach for managing expenditure associated with uncertain projects.
- We consider Yarra Valley Water's approach to forecasting its capital expenditure is consistent with the requirements of our guidance.

In its price submission, Yarra Valley Water advised it would undertake a digital water metering pilot, but it was not seeking to include costs for the pilot in prices for the 2018–23 period. It would only recover the pilot costs in the following period if it proceeded to a full roll-out of digital meters, with a preference that the roll-out was at no additional cost to customers. Our draft decision requested Yarra Valley Water define the success criteria for the pilot before any broader roll-out could proceed. In its submission, the Consumer Action Law Centre (CALC) strongly supported our position that water corporations must define success criteria and that a full roll-out should be expected to deliver a positive net present value.[39]

In its response to our draft decision, Yarra Valley Water stated a full roll-out will be subject to establishing a positive business case for the project, taking account of the preferences of customers including the value attributable by them to digital services. We expect Yarra Valley Water will consult with its customers throughout the pilot, and before committing to the next stages of its digital metering program. Any expenditure incurred by Yarra Valley Water on this program will be subject to a prudency and efficiency assessment before it can be included in the regulatory asset base.

In its submission, CALC recommended the commission sets industry-wide principles to ensure the rollout of smart meters is in the best interest of consumers, including support mechanisms for vulnerable customers.[40] However, our regulatory role is to ensure only efficient costs are recovered from customers through pricing, and does not extend to overseeing the design and delivery of capital projects. We agree with CALC that strong customer engagement and collaboration across the industry is important for achieving an efficient outcome for customers, including vulnerable customers. We also agree water corporations should take into account lessons learnt from the energy smart meter rollout, and from other water corporations further advanced with their digital metering programs.

Yarra Valley Water's response to our draft decision did not propose any changes to the draft decision's proposed gross capital expenditure. No new considerations for capital expenditure were presented in submissions received following the draft decision which caused us to change our views on capital expenditure.

Accordingly, we consider it appropriate to maintain the views we expressed in our draft decision in relation to the gross capital expenditure benchmark for the same reasons proposed in our draft decision. We consider this benchmark is consistent with our guidance and WIRO principles,[41] and is reflected in our final decision on Yarra Valley Water's forecast regulatory asset base (Table 2.6) and its revenue requirement (Table 2.1).

The benchmark that we adopt for Yarra Valley Water does not represent the amount that the water corporation is required to spend or allocate to particular projects. Rather, it represents assumptions about the overall level of expenditure (to be recovered through prices) that we consider sufficient to operate the business and to maintain or improve services over the regulatory period. Yarra Valley

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[39] Consumer Action Law Centre 2018, *Early Draft Decisions*, op. cit.

[40] Ibid.

[41] Essential Services Commission 2016, *Guidance Paper*, op. cit., p. 35; WIRO clause 8(b)

Water determines how to best manage the allocation of its revenue and priority of its expenditure within a regulatory period.

In our draft decision, we accepted Yarra Valley Water's approach for addressing uncertain capital expenditure. We reiterate that Yarra Valley Water will need to demonstrate the prudency and efficiency of additional costs incurred during the 2018–23 period if seeking to include them in the regulatory asset base.

Customer contributions

Customer contributions are deducted from gross capital expenditure so they are not included in the regulatory asset base.

Our draft decision considered Yarra Valley Water's forecast revenue from customer contributions was reasonable, having regard to past trends and its growth forecasts. We proposed to accept Yarra Valley Water's forecast in our draft decision. No new considerations were presented in submissions received following the draft decision which caused us to change our views on revenue from customer contributions.

For the reasons set out above, we consider it appropriate to maintain the views we expressed in our draft decision. Our final decision accepts the position in our draft decision for the same reasons, and adopts the benchmark revenue from customer contributions proposed by Yarra Valley Water and as set out at Table 2.6.

Cost of debt

In our draft decision we proposed to approve the cost of debt proposed by Yarra Valley Water as it used the cost of debt values we specified in our guidance to calculate its revenue requirement. We also noted that we will update the value of the estimated cost of debt for 2017-18 with our calculation of the actual cost, applying the method outlined in our guidance.[42]

A submission from the Consumer Action Law Centre recommends that we set the benchmark cost of debt at five per cent or around one per cent lower than the amount allowed in our draft decision (6.05 per cent per annum in nominal terms).[43] CALC submits that government owned water corporations carry less risk than private corporations and as such, the allowed cost of debt and the

[42] We received data on the actual trailing average cost of debt for 2017-18 from Treasury Corporation Victoria in April 2018.

[43] Consumer Action Law Centre 2018, *Submission: Cost of debt and allowed return on equity in the 2018 Water Price Review,* 26 March.

return on equity should be lowered compared with the rates allowed in our draft decision. These recommendations are based on a report prepared by CME for CALC.[44]

A submission by the Water Services Association Australia (WSAA) addressed CALC's submission.[45] Among other things, WSAA's submission noted that competitive neutrality principles have been embedded in government policy, including in Victoria via the Financial Accommodation Levy. As a result, water corporations face a cost of debt that reflects the commercial cost of debt.

In keeping with government policy, the approach we take to the cost of debt is to adopt a benchmark rate that applies to all water corporations. The benchmark reflects our estimate of the efficient financing costs for a privately owned business facing a similar degree of economic risk to a regulated water corporation. We consider this is consistent with the requirements of the WIRO.[46]

In our view, adopting the approach recommended by CALC would mean a benchmark efficient water corporation may not have a reasonable opportunity to recover their debt costs.

A more detailed response to the issues raised by CALC is set out at Appendix D.

Our final decision adopts the benchmark cost of debt as set out in Table 2.7.[47]

Table 2.7 Final decision – Trailing average cost of debt

	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Cost of debt (nominal)	6.9%	7.4%	7.0%	6.3%	5.3%	7.1%	5.4%	5.3%	4.9%	4.5%

Note: Numbers have been rounded

Return on equity – PREMO rating

Yarra Valley Water rated its price submission as 'Advanced'. Based on its PREMO self-rating, Yarra Valley Water proposed a return on equity of 4.9 per cent per annum. This reflects the maximum return rate allowed in our guidance for a price submission rated as 'Advanced'.[48]

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[44] Consumer Action Law Centre 2018, *Cost of debt*, op. cit., Appendix A.

[45] WSAA 2018, *WSAA Submission to ESC Cost of debt,* May.

[46] Including, in particular, the requirements that our decision have regard to: the promotion of efficiency in regulated industries and the financial viability of the regulated water industry (cl 8(b)(ii) WIRO); efficiency in the industry and incentives for long term investment (s 8A(1)(a) ESC Act); and consistency in regulation between States and on a national basis (s 8A(1)(f) ESC Act).

[47] We received data on the actual trailing average cost of debt for 2017-18 from Treasury Corporation Victoria in April 2018, updating for these estimates in our final decision.

[48] Essential Services Commission 2016, *Guidance paper*, op. cit., p. 49.

Our draft decision accepted Yarra Valley Water's proposed return on equity. This reflected our preliminary review of its PREMO self-rating.

A submission from the CALC recommended a one per cent reduction to each return on equity value in the PREMO matrix.[49] CALC's recommendation is based on the findings of a report prepared by CME. The main reason CME proposed the reduction is due to comparisons with returns allowed for UK water entities, and that government owned water corporations carry less risk than private corporations.

The most relevant comparisons for the return on equity are other economic regulators in Australia. The rate for the return on equity (and the regulatory rate of return, comprising the cost of debt and the return on equity) approved in our draft decision are similar to rates recently estimated by other Australian-based regulators of the water sector.[50] We also consider the allowed return on equity should not be adjusted to reflect government ownership, as the exposure of a water corporation to market risk will not be materially affected by government ownership.

A more detailed response to the issues raised by CALC is set out at Appendix D.

We consider our approach to the return on equity is consistent with our requirements under the WIRO, and in particular, that our estimate provides water corporations with an incentive to invest efficiently, and that our approach has regard to the financial viability of the water industry.

Our final decision accepts Yarra Valley Water's proposed return on equity of 4.9 per cent per annum, reflecting our views, above and our final decision on its PREMO rating (see Chapter 3).

Regulatory depreciation

Regulatory depreciation is an input to calculating the regulatory asset base. Our draft decision proposed to accept Yarra Valley Water's forecast regulatory depreciation, as it was calculated using a straight line depreciation profile and in a manner consistent with our guidance. No new considerations were presented in submissions received following the draft decision which caused us to change our views on regulatory depreciation.

For the reasons set out above, we consider it appropriate to maintain the views we expressed in our draft decision. Our final decision accepts the position in our draft decision for the same reasons, and accepts Yarra Valley Water's forecast regulatory depreciation, as set out in Table 2.1.

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[49] Consumer Action Law Centre 2018, *Cost of debt,* op. cit.

[50] Essential Services Commission of South Australia 2016, *SA Water regulatory determination 2016*, Final Determination, June; Independent Pricing and Regulatory Tribunal 2017, *WACC biannual update*, February.

Tax allowance

The tax allowance is an input to the revenue requirement. Our draft decision proposed to accept Yarra Valley Water's forecast tax allowance as it was calculated consistently with the method required by our guidance.[51]

In its response to our draft decision, Yarra Valley Water updated its estimates of forecast tax to reflect our updated cost of debt. We consider Yarra Valley Water's updated estimates were calculated in a manner consistent with our guidance. The revisions lower the forecasts for tax payments by Yarra Valley Water by around $2.7 million over the five year regulatory period from 1 July 2018, compared to our draft decision (Table 2.2).

No other new considerations on tax were presented in submissions received following the draft decision which caused us to change our views on tax allowance.

For the reasons set out above, our final decision accepts Yarra Valley Water's forecast tax allowance, as set out in Table 2.1.

Demand

Our draft decision proposed to approve Yarra Valley Water's demand forecasts as we considered they were estimated in a manner that is consistent with the requirements of our guidance. No new considerations were presented in submissions received following the draft decision which caused us to change our views on demand.

For the reasons set out above, we consider it appropriate to maintain the views expressed in our draft decision. Our final decision accepts the position in our draft decision for the same reasons, and accepts Yarra Valley Water's demand forecasts.

Yarra Valley Water's price determination includes the benchmark demand forecasts adopted for our final decision.

Form of price control

Our draft decision accepted Yarra Valley Water's proposal to continue with a revenue cap form of price control, subject to revisions that expressed its revenue cap formula in real (and not nominal) terms. A revenue cap allows prices to be adjusted to reflect under or over-recovery of revenue in prior years, usually due to differences in demand from forecast. Yarra Valley Water proposed to

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[51] Essential Services Commission 2016, *Guidance paper*, op. cit., pp. 50–51.

limit any annual price increase to two per cent (not including inflation). Yarra Valley Water's proposal is similar to its current approach, which we approved in 2013.[52]

Our draft decision noted Yarra Valley Water's proposal allows the recovery of sufficient revenue to cover the forecast efficient costs of providing services, and for it to deliver on any health, safety, social and environmental obligations. We also considered the annual limit on price increases also helps to minimise the impact of price changes on customers that can arise under a revenue cap.

Yarra Valley Water responded to our draft decision with a revised revenue cap form of price control formula, expressed in real terms.

Our final decision approves Yarra Valley Water's revenue cap form of price control as we consider it meets our guidance, with a minor amendment to its price adjustment formula, discussed further in the adjusting prices section (page 27).

Tariff structures and prices

Our draft decision accepted Yarra Valley Water's proposal to retain its existing tariff structures, including a two-part tariff structure for water and sewerage services (it proposed a fixed service and variable usage charge for both services). For residential customers, Yarra Valley Water proposed to continue the three-tier inclining block for water usage, where the usage price increases with each higher tier.

In our draft decision, we considered the two-part structure for water services will promote efficient use. It also provides customers a signal about their water use costs, and is an approach that is commonly applied in other states and territories.[53] We also considered two-part tariff structures are easy to understand. Given there was no clear evidence customers wish to move from existing tariff structures, we accepted Yarra Valley Water's proposal to continue its three-tier inclining block tariff for residential water use. We considered Yarra Valley Water's proposed tariffs will allow it to recover revenue sufficient to cover efficient costs.

A number of submissions responding to our draft decision commented on the structure of tariffs, and in particular the mix of fixed and variable tariffs in customer bills. Some submissions thought fixed water charges were too high, and considered a higher variable tariff share would support water conservation objectives.[54] A submission from Mike Jorgensen recommended a discount for

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[52] Essential Services Commission 2013, *Price Review 2013: Greater Metropolitan Water Businesses — final decision*, June, p. 129.

[53] Includes the tariffs of Icon Water, Sydney Water, Hunter Water, Gosford City Council, Wyong Shire Council, Power and Water Corp, Urban Utilities, Unity Water, SA Water and TasWater.

[54] See for example, the submission from Mark Fielding.

large households, noting that when nine people occupy his house, water usage can reach the third tier of Yarra Valley Water's three-tier inclining block, raising variable charges and bills.[55] A submission by Christopher Irvine sought the removal of the fixed sewerage charge.[56]

A number of submissions outlined that non-residential connection charges are almost double that of residential customers, and provide little incentive to save water. [57] A submission by John Anderson recommended non-residential connection charges vary with the size of the connection.[58]

As noted in our draft decision, we have provided the water corporations with a large degree of discretion to decide on tariff structures.[59] This recognises water corporations are often best placed to consider the interests of customers in designing tariffs, and that existing tariff structures have been developed over time to deal with a variety of local circumstances.

We have reviewed Yarra Valley Water's engagement and consider the corporation robustly tested customer views on the balance of fixed and variable charges, and considered feedback to inform its proposals. For example, it proposed prices whereby the fixed component of a water bill would rise slightly from 1 July 2018, and retain its existing inclining block structure for residential water usage, in support of water conservation objectives identified by customers.[60] Also, to address concerns raised during engagement about the bill impact of the inclining block structure for larger households, Yarra Valley Water will introduce a mechanism to reduce the water usage charge for larger households having difficulty paying their bill, depending on the number of people in the property.

In its response to our draft decision, Yarra Valley Water proposed tariffs reflecting our draft decision on its revenue requirement. We consider these proposed tariffs take into account customers' interests, including low income and vulnerable customers, because:

- the proposed tariffs reflect the forecast efficient costs of delivering services
- the proposed two-part structure for water services tariffs will promote efficient water use, and provide customers a signal about the costs of their water use
- the proposed tariffs were informed by an extensive customer engagement program
- the proposed tariffs would allow the corporation to recover revenue sufficient to cover forecast efficient costs

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[55] Mike Jorgensen 2018, *Submission,* 23 February.

[56] Christopher Irvine 2018, *Submission,* 9 January.

[57] Fredrick Pearson 2018, *Submission,* 1 May; Anonymous 2018, *Submission,* 30 April.

[58] John Anderson 2018, *Submission,* 22 February.

[59] Essential Services Commission 2016, *Guidance paper*, op. cit., p. 55.

[60] Yarra Valley Water 2017, op. cit., p. 19.

- Yarra Valley Water has payment options and assistance for customers experiencing difficulty paying bills.

For the reasons set out above, our final decision approves Yarra Valley Water's proposed tariffs.[61]

Our price determination for Yarra Valley Water sets out the maximum prices it may charge for the five year period from 1 July 2018 (or the manner in which its prices are to be calculated, determined, or otherwise regulated). Approved maximum prices for water and sewerage services applying to most residential and non-residential customers are set out in Tables 2.8 and 2.9.

Table 2.8 Final decision – water prices
$ 2018-19

	2018-19	2019-20	2020-21	2021-22	2022-23
Residential					
Variable ($/kL)					
1st tier	2.6436	2.6171	2.5909	2.5650	2.5394
2nd tier	3.1058	3.0747	3.0439	3.0135	2.9834
3rd tier	4.6193	4.5777	4.5365	4.4956	4.4552
Fixed ($/year)	77.87	77.09	76.32	75.55	74.80
Non-residential					
Variable ($/kL)	2.8503	2.8217	2.7935	2.7656	2.7379
Fixed ($/year)	288.72	285.83	282.97	280.14	277.34

Note: Numbers have been rounded

[61] A submission from Emma Heart raised the issue of connection charges to properties that are no longer connected to Yarra Valley Water's network. On this we note that our role is to approve the maximum charges that Yarra Valley Water can charge its customers and its required revenue, which we set consistent with our legal requirements, including the Water Act 1989. Yarra Valley Water must set the charge consistent with the Water Act 1989, and not exceed the maximum charge we set. The Water Act 1989 allows Yarra Valley Water to levy a connection charge to a property that has previously been connected to Yarra Valley Water's network.

Table 2.9 Final decision – sewerage prices
$ 2018-19

	2018-19	2019-20	2020-21	2021-22	2022-23
Residential					
Variable ($/kL)	1.1390	1.1276	1.1163	1.1051	1.0941
Fixed ($/year)	456.81	452.24	447.71	443.24	438.80
Non-residential					
Variable ($/kL)	2.0153	1.9971	1.9791	1.9613	1.9437
Fixed ($/year)	555.29	549.73	544.23	538.79	533.40

Note: Numbers have been rounded

Adjusting prices

Our draft decision accepted Yarra Valley Water's proposal to continue with its existing uncertain and unforeseen events mechanism and the proposed pass-through events, as set out on page 206 of its price submission that we considered were consistent with efficiency objectives.[62]

We requested that Yarra Valley Water respond to our draft decision with a revenue cap formula expressed in real terms, and not nominal terms as set out in its price submission. We also sought more information from Yarra Valley Water on its proposal to pass through costs relating to the sale and purchase of water allocations.

Yarra Valley Water responded to our draft decision with:

- a revenue cap price adjustment formula expressed in real terms
- a price adjustment mechanism allowing for the pass-through of water trading costs that may occur in the South Central Victoria water market trial proposed by the Government
- revised forecasts for water sales in Northern Victorian that reflect its historical data.

Our final decision approves Yarra Valley Water's revenue cap price adjustment formula (with a minor adjustment to reflect our decision not to approve its proposed pass through for water trading, see below), as it is consistent with the approach of other water corporations and is expressed in real terms, which is consistent with our guidance.

[62] WIRO clauses 14(1)(a)(vi) and 14A(B)(viii).

We do not approve Yarra Valley Water's proposed pass-through mechanism for water trading costs. Yarra Valley Water is the only water corporation to propose a pass-through of these costs. The pass-through of the costs to its customers without a reciprocal off-set by the water corporation it traded with is not in the interests of customers. For this reason, our final decision does not approve the proposed mechanism to allow for the pass-through of water trading costs from the South Central Victoria water market trial in its price adjustment formula.

We have also approved Yarra Valley Water's:

- revised forecasts for water sales in Northern Victoria because we consider it more accurately reflects historical data
- proposed uncertain and unforeseen events mechanism, as we consider that it worked well in the past and our guidance proposed that the mechanism continue in its current form[63]
- remaining pass-throughs it proposed on page 206 of its price submission, as they are consistent with efficiency objectives.[64]

New customer contributions

New customer contributions (or developer charges) are levied by water corporations when a new connection is made to its water, sewerage or recycled water networks. New customer contributions can be either standard or negotiated. Standard charges apply to new connections in areas where infrastructure requirements and growth rates are relatively well known, while negotiated charges allow water corporations and developers to negotiate a site-specific arrangement.

Our draft decision proposed to accept Yarra Valley Water's proposed new customer contribution charges. Yarra Valley Water proposed the continuation of existing charges (plus inflation) for standard new customer contributions and location specific charges in Epping North. Yarra Valley Water also proposed to phase-in increases to location specific charges in the new urban growth boundary and Greenvale/Mickelham where contributions are below full cost recovery.

Our draft decision also accepted Yarra Valley Water's proposal to continue its existing backlog connection charges.

No other new considerations were presented in submissions received following the draft decision which caused us to change our views on new customer contribution charges or backlog charges.

For the reasons set out above, we consider it appropriate to maintain the views expressed in our draft decision. Our final decision accepts the position in our draft decision for the same reasons,

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[63] Essential Services Commission 2016, *Guidance paper*, op. cit. pp. 59–61.

[64] WIRO clauses 14(1)(a)(vi) and 14A(B)(viii).

and approves Yarra Valley Water's proposed new customer contribution charges and backlog charges. Our final decision also approves Yarra Valley Water's use of our new customer contribution pricing principles to calculate negotiated charges, as it is consistent with the requirements of our guidance.[65]

Our price determination for Yarra Valley Water sets out the approved new customer contribution charges and backlog charges for the five year period from 1 July 2018 (or the manner in which its prices are to be calculated, determined, or otherwise regulated).

Yarra Valley Water should update and publish any development servicing plans and negotiation protocols to assist developers understand the underlying assumptions of its new customer contribution charges.[66]

Financial position

In approving prices, we must have regard to the financial viability of the water industry.[67] We interpret the financial viability requirements under the *Essential Services Commission Act 2001* (Vic) and the Water Industry Regulatory Order (2014) to mean that the prices we approve should provide a level of certainty that each water corporation can generate sufficient cash flow to deliver on service commitments, including financing costs arising from investments to meet service expectations.

Our guidance set out key indicators of forecast financial performance. We have reviewed forecasts for these key indicators based on our final decision on Yarra Valley Water's prices. We have assessed that under our final decision, Yarra Valley Water will generate sufficient cash flow to deliver on service commitments, including financing costs arising from investments to meet service expectations.

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[65] Essential Services Commission 2016, *Guidance paper*, op. cit. pp. 62–63.

[66] Essential Services Commission 2013, *New Customer Contributions: Explanatory Note, December*, pp. 9-11.

[67] WIRO clause 8(b)(ii) and ESC Act s.8A(1)(b).

3. PREMO rating

PREMO is an incentive mechanism that links the return on equity to a water corporation's level of ambition in delivering value to its customers.

For the 2018 price review, a water corporation must rate its price submission as 'Leading', 'Advanced', 'Standard' or 'Basic'. The rating is based on an assessment against the Risk, Engagement, Management and Outcomes elements of PREMO. A 'Leading' price submission is allowed the highest return on equity, and a 'Basic' the lowest.

The assessment tool included in our guidance directs a water corporation to consider its level of ambition in relation to matters covered in its price submission, such as proposals related to operating and capital expenditure, the form of price control, and tariffs.

In Chapter 2, we noted our final decision is to accept Yarra Valley Water's proposed return on equity of 4.9 per cent. In this chapter, we set out our assessment of Yarra Valley Water's proposed PREMO rating.

Our review of Yarra Valley Water's PREMO self-rating

Yarra Valley Water's proposed PREMO rating, and our draft and final decision are summarised in Table 3.1. After considering submissions in response to our draft decision, our final decision agrees with Yarra Valley Water's proposed PREMO rating.

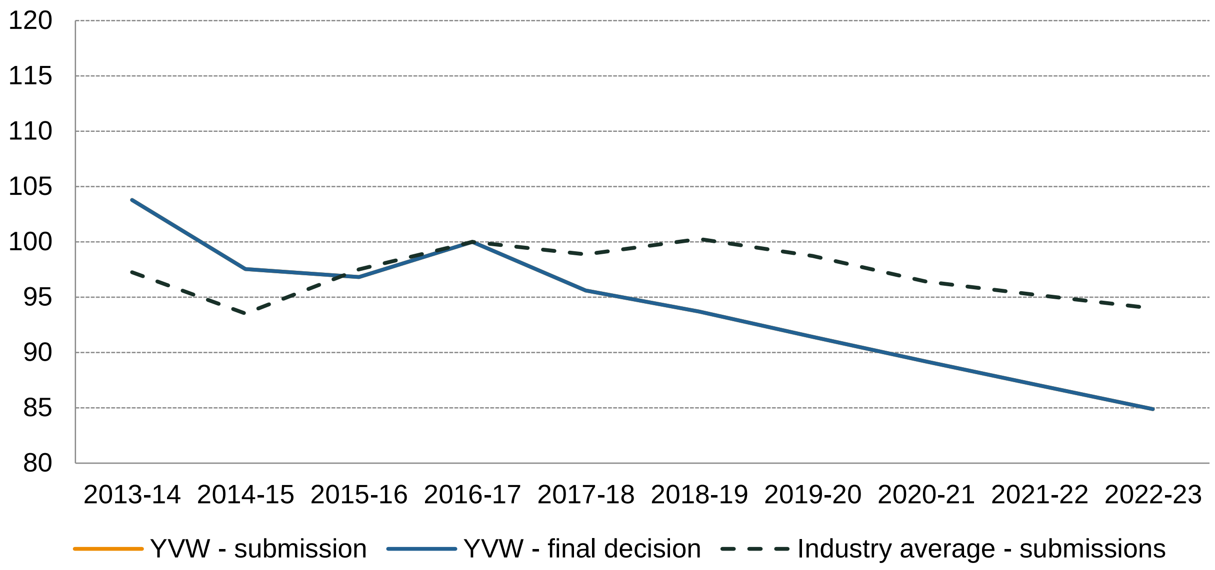
Table 3.1 PREMO Rating

	Overall PREMO rating	Risk	Engagement	Management	Outcomes
Yarra Valley Water's rating	**Advanced**	Leading	Leading	Leading	Advanced
Commission's draft decision rating	**Advanced**	Advanced	Leading	Leading	Advanced
Commission's final decision rating	**Advanced**	Advanced	Leading	Leading	Advanced

We agree with Yarra Valley Water's proposed self-rating for the Engagement, Management and Outcomes elements of PREMO. In support of its self-ratings we note:

- The high quality of Yarra Valley Water's price submission, and supporting financial model. Its price submission clearly demonstrated the links between its engagement and proposed outcomes, and provided sufficient information for us to assess its proposals.
- Yarra Valley Water's engagement, which we consider provided a fair opportunity for customers to participate and to influence its proposals. In particular, we note the quality of the information Yarra Valley Water provided to its citizens' jury and its decision to accept the recommendations of the jury in its price submission.[68]
- Yarra Valley Water's efficiency level and forecast improvement rate for operating expenditure per customer connection, which are high relative to other water corporations (Figure 3.1). This contributes to the price declines proposed by Yarra Valley Water.

Figure 3.1 Controllable operating expenditure per water connection
Index: 2016-17=100



Consistent with our draft decision, our final decision considers a rating of 'Advanced' is more appropriate for the Risk element of PREMO, rather than the 'Leading' rating proposed by Yarra Valley Water. Our reasons are:

- Yarra Valley Water proposed to retain a revenue cap form of price control, and a pass-through mechanism for the sale and purchase of water allocations. We consider these proposals

[68] Yarra Valley Water's *Citizens' jury information pack* is available on our website at www.esc.vic.gov.au/waterpricereview.

transfer demand risk to customers. For urban water services, our view is that demand risk is best managed by a water corporation.

- Yarra Valley Water's original proposal incorporated relatively conservative price assumptions for sales relating to its water entitlements, relative to the other metropolitan retail water corporations.[69]

However, we note there are other factors supporting its proposed Risk rating, such as:

- The proposed limit to the annual increase in prices under its revenue cap of two per cent (not including inflation), if demand is lower than forecast.
- Yarra Valley Water's progression to attain ISO 55001 certification.
- Yarra Valley Water's commitment to delivering an annual 2.5 per cent efficiency improvement in controllable operating expenditure, despite some uncertainty about how this will be achieved.
- Yarra Valley Water increasing the revenue it has at risk for failure to deliver on key service outcomes.

On balance, we consider the transfer of risk to customers through the revenue cap, and Yarra Valley Water's original proposal incorporating relatively conservative assumptions about water sales, are not consistent with a 'Leading' rating for the Risk element of PREMO.

We agree with Yarra Valley Water's proposed overall PREMO self-rating of 'Advanced'. This is reflected in the return on equity we have approved for Yarra Valley Water at page 21.

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[69] In response to our draft decision, Yarra Valley Water provided updated forecasts for sales of its Northern Victoria water allocations. Our draft decision noted its original price assumptions for sales relating to its water entitlements, were relatively conservative compared to the other metropolitan retail water corporations. The update provided by Yarra Valley Water brought its forecasts closer to the assumptions adopted by the other metropolitan retail water corporations.

Appendix A – submissions received on draft decision

Name or organisation	Date received
Water Services Association Australia	16 May 2018
Frederick Pearson	1 May 2018
Anonymous	30 April 2018
Mark Fielding	3 April 2018
Consumer Action Law Centre	26 March 2018
Consumer Action Law Centre	13 March 2018
Mike Jorgensen	23 February 2018
Emma Heart	22 February 2018
John Anderson	22 February 2018
Anonymous	18 February 2018
Graeme Strachan	14 January 2018
Christopher Irvine	5 January 2018
Environment Protection Authority Victoria	12 December 2017

Appendix B – approved service standards

We have approved the following standards, and conditions of service and supply, and associated targets for Yarra Valley Water.

Yarra Valley Water's approved service standards

Service standard	2018-19	2019-20	2020-21	2021-22	2022-23
Water					
Customers experiencing more than 5 unplanned water supply interruptions in any 12 month period (number)	165	165	165	165	165
Average time taken to attend bursts and leaks (priority 1) (minutes)	44	44	44	44	44
Average time taken to attend bursts and leaks (priority 2) (minutes)	88	88	88	88	88
Average time taken to attend bursts and leaks (priority 3) (minutes)	802	802	802	802	802
Average duration of unplanned water supply interruptions (minutes)	110	110	110	110	110
Average duration of planned water supply interruptions (minutes)	128	128	128	128	128
Sewerage					
Customers receiving more than 3 sewer blockages in the year (number)	11	11	11	11	11
Average time to attend sewer spills and blockages (minutes)	82	82	82	82	82
Average time to rectify a sewer blockage (minutes)	243	243	243	243	243
Spills contained within 5 hours (per cent)	97	97	97	97	97

Note: Numbers have been rounded

Appendix C – approved GSL scheme

We have approved the following service level obligations and corresponding amounts of payment for failure to attain the stated obligation as the guaranteed service level (GSL) scheme for Yarra Valley Water.

In accordance with clause 13 of our Customer Service Code: Urban Water Businesses, Yarra Valley Water must ensure that any payment is made to a customer as soon as practical after a customer becomes entitled to the GSL payment.

Yarra Valley Water is not required to make a payment where the failure to meet the service level is due to the action or inaction of the customer or a third party. For the avoidance of doubt, third party does not include any person or firm acting on behalf of Yarra Valley Water.

Yarra Valley Water's approved GSL scheme

Approved service level obligation	Approved payment ($)
Customer's planned water or sewerage service interruption exceeds 5 hours	50
Customer's planned water or sewerage interruption is longer than advised	50
Customer is not provided at least 1 weeks' notice of a planned water interruption	50
Customer experiences a planned water supply interruption during peak hours (5am to 9am and 5pm to 11pm)	50
Customer's water service is not restored within 4 hours of an unplanned event occurring	50
Customer's water service is not restored within 12 hours of an unplanned event occurring	50
Customer experiences more than 5 unplanned water or sewerage interruptions in total within any 12 month period	50
Customer water flow does not meet minimum standard	77.87
Sewage spill within a customer's house is not contained within 1 hour of notification	1000
Customer experiences a subsequent sewage spill in their house that is not contained within 1 hour of notification in a 12 month period	2000
Sewage spill within a customer's property is not contained within 4 hours	1000
Customer experiences a subsequent sewage spill in their property that is not	2000

Approved service level obligation	Approved payment ($)
contained within 4 hours in a 12 month period	
Customer's sewerage service is not restored within 4 hours of an unplanned event occurring	50
Customer's sewerage service is not restored within 12 hours of an unplanned event occurring	50
Customer experiences more than 3 unplanned sewerage service interruptions within any 12 month period	50
Customer's letter or contact is not responded to within 4 days	50
Customer experiences more than 2 separate water quality related issues in 12 months	50
Not restricting the water supply of, or taking legal action against, a residential customer prior to taking reasonable endeavours (as defined by the Essential Services Commission) to contact the customer and provide information about help that is available if the customer is experiencing difficulties paying	300

Appendix D – rate of return

A submission from the Consumer Action Law Centre (CALC) recommended that we set the benchmark cost of debt at five per cent or around one per cent lower than the amount allowed in our draft decision (6.05 per cent per annum in nominal terms). It also recommended that we reduce each of the equity values in the PREMO matrix by one per cent. CALC submits that government owned water corporations carry less risk than private corporations, and as such, the allowed cost of debt and the return on equity should be lowered, compared with the rates allowed in our draft decision.[70] These recommendations are based on a report prepared by CME for CALC.[71]

Victoria's water corporations are subject to the competitive neutrality measures the Victorian government agreed to implement as part of the national competition policy agreement and related reforms.[72] This includes ensuring that borrowing costs reflect an estimate of a water corporation's standalone risk profile and credit rating. We note that:

- Victoria's water corporations do not access debt capital markets directly, but rather, their debt is managed by the state government treasury corporation, through the issuance of government bonds. While the treasury corporation may have access to lower debt funding costs due to government's higher credit rating, the water corporation's borrowing costs do not reflect this. Rather, the water corporations borrow from state treasuries at rates consistent with the risk inherent in the businesses as reflected in their stand-alone credit rating.
- The difference between the government's borrowing costs and the costs faced by water corporations represents consideration due to state taxpayers for accepting the business' credit risk. This is achieved via the Financial Accommodation Levy (FAL), which seeks to ensure the borrowing cost faced by each water corporation reflects the nature of their businesses, not the tax powers of government. If state-owned service providers accessed debt markets directly, then they would face debt financing interest rates that reflected their stand-alone credit ratings.

In keeping with these policy parameters, the approach we take to the cost of debt is to adopt a benchmark rate that applies to all water corporations. The benchmark rate reflects our estimate of the efficient financing costs for a privately owned business facing a similar degree of economic risk

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[70] Consumer Action Law Centre 2018, *Cost of debt,* op. cit.

[71] Consumer Action Law Centre 2018, *Cost of debt*, op cit., Appendix A.

[72] We note the Water Services Association of Australia supports application of competitive neutrality principles, see Water Services Association of Australia 2016, *Submission to the Essential Services Commission: A new model for pricing services in Victoria's water sector*, July, p. 11.

to a regulated water corporation. We consider this is consistent with the requirements of the WIRO.[73]

Adopting the approach recommended by CALC would mean the allowed rate for the cost of debt may be lower than the rate faced by a benchmark efficient water corporation. As well as being inconsistent with government policy that water corporations pay an estimate of a commercial equivalent borrowing rate, it would also be inconsistent with the WIRO's viability and efficiency objectives. Our approach is also similar to that adopted by other Australian economic regulators.

CALC's submission also recommended a one per cent reduction to each return on equity value in the PREMO matrix.[74] CME proposed the reduction mainly based on comparisons with the return allowed for UK water entities, and its view that government-owned water corporations carry less risk than comparable privately owned businesses.

We believe the most relevant comparisons for the return on equity are other economic regulators in Australia. We note the rate for the return on equity (and the overall regulatory rate of return, comprising the cost of debt and the return on equity) approved in our draft decision are within the range of rates estimated by other Australian-based regulators.[75]

Also, our current view is that the allowed return on equity should not be adjusted to reflect government ownership. In deriving the values for the return on equity in the PREMO matrix, we had regard to the return on equity we had allowed in the past, and the incentives for water corporations to provide high quality price submissions in the interests of their customers.

CME also argues for a reduction in return on equity to reflect the prevailing revenue cap form of price control. This reflects that a revenue cap provides a water corporation with greater revenue certainty than other forms of price control, such as a price cap. We note however, that only one urban water corporation in Victoria (Yarra Valley Water) has a revenue cap form of price control. As well, a revenue cap does not necessarily change the level of systematic risk faced by a water corporation. For example, it is possible that a water corporation operating under a revenue cap is more exposed to cost risks than corporation operating under a price cap.[76]

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[73] Including, in particular, the requirements that our decision have regard to: the promotion of efficiency in regulated industries and the financial viability of the regulated water industry (cl 8(b)(ii) WIRO); efficiency in the industry and incentives for long term investment (s 8A(1)(a) ESC Act); and consistency in regulation between States and on a national basis (s 8A(1)(f) ESC Act).

[74] Consumer Action Law Centre 2018, *Cost of debt,* op. cit.

[75] Essential Services Commission of South Australia 2016, *SA Water regulatory determination 2016*, Final Determination, June; Independent Pricing and Regulatory Tribunal 2017, *WACC biannual update*, August

[76] For example, increases in water demand can lead to increased costs for a water corporation, which would not be matched by an increase in revenue, under a revenue cap. By contrast, under a price cap increases in water demand would also lead to an increase in revenue.

While our final decision has not agreed with CALC’s recommendations, we will re-consider its arguments as part of any future review of the PREMO framework.