ESSENTIAL SERVICES COMMISSION OF SOUTH AUSTRALIA

Water

Robusto Investments Pty Ltd: Drinking Water Draft Regulatory Determination

Statement of Reasons

November 2020

Request for submissions

The Essential Services Commission (**Commission**) invites written submissions on this draft report. Written comments should be provided by **15 January 2021**

It is the Commission's policy to make all submissions publicly available via its website (www.escosa.sa.gov.au), except where a submission either wholly or partly contains confidential or commercially sensitive information provided on a confidential basis and appropriate prior notice has been given.

The Commission may also exercise its discretion not to publish any submission based on length or content (for example containing material that is defamatory, offensive or in breach of any law).

Responses to this paper should be directed to: **Robusto Investments Pty Ltd: Drinking Water Draft Regulatory Determination**

It is preferred that submissions are sent electronically to: **escosa@escosa.sa.gov.au**

Alternatively, submissions can be sent to:
Essential Services Commission
GPO Box 2605
ADELAIDE SA 5001

Telephone: (08) 8463 4444
Freecall: 1800 633 592 (SA and mobiles only)
E-mail: escosa@escosa.sa.gov.au
Website: www.escosa.sa.gov.au

Table of contents

Glossary of terms

CAPM	Capital Asset Pricing Model
Commission	Essential Services Commission, established under the *Essential Services Commission Act 2002*
Code	Water Retail Code – Minor and Intermediate Retailers WRC-MIR/02
CPI	Consumer Price Index
DRC	Depreciated Replacement Cost, a form of asset valuation methodology
ESC Act	*Essential Services Commission Act 2002*
Hillrise	Hillrise Investments Pty Ltd, the former operator of the Mount Compass retail water network
NWI	National Water Initiative
Regulatory period	1 April 2021 to 30 September 2022
Robusto	Robusto Investments Pty Ltd (ABN 75 117 034 545)
RBA	Reserve Bank of Australia
SAW RD20	SA Water Regulatory Determination 2020
WACC	Weighted average cost of capital
WI Act	*Water Industry Act 2012*
WGA	Wallbridge Gilbert Aztec, a private engineering firm
2013 Regulatory Determination	2013-2017 Price Determination for Minor and Intermediate Retailers, the term of which was extended in June 2018 through the release of the Variation to 2013-2017 price determination for minor and intermediate retailers to extend its operation

1 Executive summary

In accordance with section 25 of the *Essential Services Commission Act 2002* (**ESC Act**) and section 35 of the *Water Industry Act 2012* (**WI Act**), the Essential Services Commission (**Commission**) proposes to make a Regulatory Determination relating to the drinking water retail services provided by Robusto Investments Pty Ltd (ABN 75 117 034 545) (**Robusto**) for the period 1 April 2021 to 30 September 2022 (**regulatory period**).

Since 2016, Robusto has been a licensed water retailer, currently supplying 174 customers (172 residential and two non-residential) at Mount Compass, located south of Adelaide. The pricing of Robusto's water retail services is regulated by the Commission through a Regulatory Determination made in 2013 (**2013 Regulatory Determination**), which applies to all water retailers (other than SA Water). That determination, among other things, requires retailers' ongoing conformance with the requirements of the National Water Initiative (**NWI**) Pricing Principles when setting prices.

Between March 2017 and September 2019, Robusto put forward four separate pricing proposals to the Commission. Robusto's stated objective of those pricing proposals was to ensure customers continue to receive reliable and high quality water supplied to their properties for domestic consumption.

The Commission determined that Robusto's proposals did not comply (including with the NWI Pricing Principles) and would have led to over-recovery of revenues. Specifically, Robusto's final proposal would allow for, if it reached the maximum amount proposed, a more than 250 percent increase in the average customer bill. It is noted that Robusto's proposals stated that, despite the maximum, it would take a 'stepped increase' approach to pricing to mitigate potential instances of 'bill shock' and hardship on its customers.

The Commission, therefore determined that it would make a new Regulatory Determination to apply to Robusto, through a transparent and consultative process, in order to protect consumers' long-term interests, by addressing the factors identified in Robusto's proposals that were unlikely to be consistent with efficient costs and compliant with NWI Pricing Principles.

This Draft Regulatory Determination sets out, for public consideration and comment, the draft scope of and reasons for that proposed determination. The Commission invites written submissions on the Draft Regulatory Determination by 15 January 2021, and will consult with impacted stakeholders during that consultation period, to facilitate the provision of submissions and address queries. The Commission intends to release a Final Price Determination in March 2021.

In summary, the proposal is that a new Regulatory Determination will apply to Robusto, on largely the same terms as the 2013 Regulatory Determination, with an additional requirement that, in setting prices, Robusto must also adopt, comply with and not exceed a revenue control set by the Commission. That control is proposed to be a maximum revenue cap of $283 337 (in December 2018 prices, equivalent to $287 976 at current prices) for the regulatory period.

Under that proposal, if Robusto chose to reach the revenue cap the average customer bill would rise from approximately $900 to approximately $1 086 per year (in December 2018 prices, equivalent to $1 103 at current prices). This increase of approximately 21 percent is primarily driven by the need to include the recovery of efficient asset costs (depreciation and return) within the cost base - which is not occurring within the current pricing structure.

By way of comparison, the Commission estimates that Robusto's proposal, after relevant adjustments, would have resulted in a 264 percent increase in the average customer bill, to approximately $3 279 for 2020-21 (in December 2018 prices) for the proposed 18-month period.

The main differences between the Commission's proposed revenue cap and Robusto's proposal reflects the treatment of the cost of funding and using existing assets and the level of operating

expenditure. The Commission's proposal also does not include revenue allowances for any new capital expenditure within the maximum allowable revenue cap, as there is currently insufficient information to establish the level of expenditure that would be prudent and efficient.

The proposed determination period is 18 months, allowing for the continued provision of drinking water retail services and giving Robusto the opportunity to provide appropriately detailed information about its long -term investment and financing plans. In doing so, the Commission expects Robusto – and indeed all water retailers – to engage with its customers genuinely and transparently, and to take into account the type, level and quality of services that customers value and for which they are willing to pay.

The proposed revenue cap has been calculated using the standard 'building block' approach for economic regulation. A similar methodological approach is applied by the Commission in its regulation of SA Water. It is based on and consistent with standard and generally-accepted (within Australia and internationally) economic regulatory methodologies.

It is noted that the Commission's proposed revenue cap has been determined based on the best available evidence at this stage of the process. The revenue cap for the final decision, however, may end up being higher, lower or the same as the revenue cap proposed in the draft decision, depending on any new information and evidence available to the Commission.

2 Background and context

The Commission is proposing to make a Regulatory Determination in accordance with its statutory objective to protect the long-term interests of South Australian consumers with respect to price, quality and reliability of essential services.

The Commission is consulting on this Draft Regulatory Determination, with written submissions due by 15 January 2021. The Commission intends to meet with impacted stakeholders during the consultation period, to facilitate the provision of submissions and address any queries. The process for providing written submissions is on the inside of the front cover of this report. All relevant submissions, evidence and information will be considered by the Commission in preparing the final determination.

This chapter outlines why a Regulatory Determination is required for Robusto's drinking water retail services and explains the legal requirements and policy context of the determination.

2.1 The Compass Springs water retail business[1]

Robusto Investments Pty Ltd (ABN 75 117 034 545) (**Robusto**) (trading as Compass Springs) is a retailer of drinking water services to 174 customers at Mount Compass, located south of Adelaide.[2] It acquired the Mount Compass drinking water retail business in mid-2016, from Hillrise Investments Pty Ltd (**Hillrise**),[3] and was granted a licence by the Essential Services Commission (**Commission**) to provide drinking water retail services in August 2016.[4]

It is a small scale water business that at the time of the acquisition supplied 165 customers.[5] There are now 174 customers (172 residential and two non-residential).[6]

The water supply network at Mount Compass comprises four bores (three are reportedly in use), three kilometres of pipe network, tanks, pumps, meters and other associated infrastructure; all customers are separately metered. The bores are located on the Mount Compass Golf Course, with water pumped to two holding tanks at the highest point of the land and thereafter gravity fed to customers.[7]

Robusto acquired the water retail business in parallel with acquisition of the affiliated golf course business and land (bought by Capitoline Property Pty Ltd).[8] It expects that its customer base could expand to 240 over the longer term.[9] The water retail licence granted by the Commission allows for a maximum of 250 connections.

In terms of the acquisition, the Commission understands that:

- Robusto's designated portion of the purchase price of the water retail business was $1.05 million (excluding GST).[10]

---

1 ESC Act s 25(4)(a). The ESC Act is available at https://www.legislation.sa.gov.au/LZ/C/A/ESSENTIAL%20SERVICES%20COMMISSION%20ACT%202002/CURRENT/2002.14.AUTH.PDF.
2 Robusto, *Financial and operational reporting statement for 2018-19,* submitted in November 2019.
3 Robusto, *Pricing submission Compass Springs – ESCOSA March 2017*, pp. 1-4.
4 Commission, *Water industry retail licence – Robusto Investments Pty Ltd.*
5 Robusto, *Pricing submission Compass Springs – ESCOSA March 2017*, pp. 1-4.
6 Robusto, *Financial and operational reporting statement for 2018-19,* submitted in November 2019.
7 Robusto, *Pricing submission Compass Springs – ESCOSA March 2017*, pp. 1-4.
8 Robusto, *Pricing submission Compass Springs – ESCOSA March 2017*, pp. 10-14.
9 Robusto, *Pricing submission Compass Springs – ESCOSA March 2017*, pp. 11-13.
10 Robusto, *Pricing submission Compass Springs – ESCOSA March 2017*, p. 7.

- Robusto used debt finance to fund the water retail business. A loan from a securities firm was first taken out at an interest rate of 14 percent for a six-month period.[11] The loan amount was refinanced at an interest rate of 5.5 percent in early 2017 with an authorised deposit-taking institution.[12] The security underpinning the loan included assets outside of the water retail business.[13]

The pricing proposals did not include a full accounting of the debt and equity funding of the assets. Nor did the proposals include full information about the security underpinning the loan funding.

At the time of the acquisition, the water retail business had been in place since 1996 and, throughout that time, pricing was fixed to SA Water's pricing with a fixed percentage mark-up.[14,15]

2.2 Background to the Regulatory Determination

Robusto is the sole (monopoly) supplier of retail drinking water services to its customers, sourcing its water from four local bores (three bores are reportedly currently in use).[16,17]

The drinking water retail services at Mount Compass are subject to economic regulation by the Commission.[18] That includes a Regulatory Determination made by the Commission on 1 July 2013 (**2013 Regulatory Determination**), established under the *Essential Services Commission Act 2002* (**ESC Act**) and the *Water Industry Act 2012* (**WI Act**).[19] Relevantly, the 2013 Regulatory Determination provides that all South Australian minor and intermediate water retailers, including Robusto, while retaining responsibility for setting water prices, must do so in line with efficient costs and the requirements of the National Water Initiative (**NWI**) Pricing Principles.[20]

Further, a consumer protection framework established by the Commission applies to Robusto's drinking water retail services. That includes the water retail code for minor and intermediate retailers (**Code**).[21] The Code sets out key consumer protection obligations, including a standard customer contract, hardship policy, customer charter, and dispute resolution policy to all be approved by the Commission and in effect within three months of obtaining a licence.[22]

Since acquiring Hillrise in 2016, Robusto has provided regulatory documents and correspondence relating to consumer protection obligations and pricing to the Commission for compliance purposes.

---

11 Robusto, *Pricing submission Compass Springs – ESCOSA March 2017*, pp. 1-6.
12 Robusto, *Pricing submission Compass Springs – ESCOSA March 2017*, pp. 1-6.
13 Robusto, *Pricing submission Compass Springs – ESCOSA March 2017*, pp. 1-6.
14 Robusto, *Pricing submission Compass Springs – ESCOSA March 2017*, pp. 1-4.
15 This approach to pricing is inconsistent with the 2013 Price Determination and NWI Pricing Principles. It would, therefore, not be appropriate for this approach to continue to apply. The application of state-wide pricing means that SA Water's prices may not be an appropriate indicator of the cost of production in various regions.
16 ESC Act ss 6(b)(i)(ii), 25(4)(a).
17 Robusto, *Pricing submission Compass Springs – ESCOSA March 2017,* March 2017, pp. 1-4.
18 Commission, *Economic regulation of minor and intermediate retailers*, June 2013, pp. 1-5, available at https://www.escosa.sa.gov.au/industry/water/retail-pricing/minor-and-intermediate-retailers-price-determination.
19 The WI Act is available at https://www.legislation.sa.gov.au/lz/c/a/water%20industry%20act%202012/current/2012.10.auth.pdf.
20 Commission, *Economic regulation of minor and intermediate retailers*, June 2013. Also, see NWI Pricing Principles, pp. 1-18, available at https://www.agriculture.gov.au/sites/default/files/sitecollectiondocuments/water/national-water-initiative-pricing-principles.pdf. A summary of the NWI Pricing Principles is in Appendix A.
21 Commission, *Water Retail Code – Minor and Intermediate Retailers - Final Decision*, March 2015, available at https://www.escosa.sa.gov.au/ArticleDocuments/429/20150310-WaterRetailCode-MinorIntermediateRetaile.pdf.aspx?Embed=Y.
22 Commission, *Water Retail Code – Minor and Intermediate Retailers - Final Decision*.

In terms of consumer protection obligations, between August 2016 and March 2018, Robusto submitted documents in relation to its obligations under the Code. Those included a standard customer sales contract, hardship policy, dispute resolution procedure and a customer charter.

In terms of pricing, between March 2017 and September 2019 Robusto sent four separate drinking water pricing proposals to the Commission,[23] aiming to demonstrate compliance with the terms and requirements of the 2013 Regulatory Determination. Those proposals would allow for, if it reached the maximum amount proposed, drinking water prices at Mount Compass to rise by a significant amount (more than a 250 percent increase), on the basis that current prices did not recover efficient costs. For example, in its September 2019 submission, Robusto proposed annual costs per customer of approximately $3 300 for 2020-21. By way of comparison, Robusto's average customer bill was estimated to be approximately $900 in 2019-20.[24]

As will be discussed in Chapters 4 and 6, it is the Commission's view that because of several factors Robusto's pricing proposals were unlikely to be consistent with efficient costs and compliant with NWI Pricing Principles. These factors include information gaps, and calculations that appear inaccurate or difficult to reconcile based on various forms of available information (both public information, as well as information provided by Robusto in its annual regulatory reporting). In contrast, the Commission notes that Robusto believes that its proposals meet the 2013 Regulatory Determination, including conforming to the requirements of the NWI Pricing Principles.

In February 2020, the Commission publicly announced that it would make a price determination to apply specifically to the drinking water retail services provided by Robusto. The Commission determined that, based on the information provided, there was insufficient evidence to demonstrate that significant price rises proposed were based on efficient costs and therefore that Robusto's pricing proposals would be in compliance with the 2013 Regulatory Determination.

2.3 Why a separate Regulatory Determination is required

Robusto's characteristics suggest that it is a small-scale monopoly provider of drinking water retail services. For instance, duplication of its water infrastructure at Mount Compass is unlikely to be profitable (an indicator of natural monopoly[25]) and there is limited competitive constraint imposed from alternative sources of supply for customers (such as the use of rainwater tanks or access to alternative infrastructure).

There is therefore a risk that Robusto – as a monopoly water retail service provider facing limited competition – could use market power to provide service levels that are not valued by its customers and/or to set customer prices higher than they need to be.[26] If there is a need to intervene to prevent the implementation of inefficient pricing, the Commission can, under the ESC Act and the WI Act,[27] exercise its discretion to make a Regulatory Determination to mandate prices, conditions relating to prices or price-fixing factors in any matter the Commission considers appropriate.[28]

---

23 Submissions were received by the Commission by email on: 17 March 2017, 30 January 2019, 23 April 2019 and 13 September 2019.

24 Appendix B outlines the calculation of historic average customer bills.

25 For example, see discussion of water monopolies in Commission, *SA Water Regulatory Determination 2020 – Final Determination Statement of Reasons*, pp. 11-12, available at https://www.escosa.sa.gov.au/ArticleDocuments/21489/20200611-Water-SAWRD20-FinalDetermination-StatementOfReasons.pdf.aspx?Embed=Y.

26 Commission, *Economic regulation of minor and intermediate retailers*; and Commission, *SA Water Regulatory Determination 2020 – Final Determination Statement of Reasons*, pp. 11-12.

27 See s 3 of the ESC Act and s 35 of the WI Act.

28 ESC Act s 6 generally.

In its proposals to the Commission, Robusto sought the Commission's "endorsement" of the pricing proposals. However, the Commission's role under the 2013 Regulatory Determination is one of determining compliance, such that retailers, such as Robusto, need to demonstrate (to customers and the Commission) how they are complying with NWI Pricing Principles in determining revenues and setting prices.

In that context, when considering Robusto's pricing proposal, the following principles are the most relevant:

- Recovery of Capital Expenditure Principle 3: Valuation of legacy assets: Legacy assets that are to be retained should be valued at Depreciated Replacement Cost (DRC); Depreciated Optimised Replacement Cost (DORC); Optimised Replacement Cost (ORC), indexed actual cost, Optimised Deprival Value (ODV) or using another recognised valuation method.
- Urban Water Tariffs Principle 1: Cost recovery: Water businesses should be moving to recover efficient costs consistent with the "upper revenue bound" which means that a water business should not recover more than the operational, maintenance and administrative costs, externalities, taxes or tax equivalent regimes, provision for the cost of asset consumption and cost of capital, the latter being calculated using a Weighted Average Cost of Capital (WACC).

The NWI Pricing Principles do not define the term "efficient costs" and so the Commission has relied on the definition of efficient costs as stated in the Council of Australian Governments' (COAG) pricing principles, which were the basis of the NWI Pricing Principles. The COAG pricing principles defined efficient costs as follows:[29]

> *Efficient business costs' in principle 6 are the minimum costs that would be incurred by an organisation in providing a specific service to a specific customer or group of customers, or the minimum amount that would be avoided by not providing the service to the customer or group of customers. Efficient business costs will be less than actual costs if the organisation is not operating as efficiently as possible.*

As discussed in detail later on, the Commission's view is that the pricing proposals included apparent overestimates for operating expenditure for a business of Robusto's size and scale, perceived inaccurate calculations relating to the return of and on assets (as it relates to the application of the asset 'rollover methodology', asset lives and the asset value), and insufficient evidence used to justify and support a rate of return on assets.[30] These matters indicated that the pricing proposal was unlikely to be consistent with efficient costs and compliant with NWI Pricing Principles.

There is therefore a need for the Commission to intervene to protect the long-term interests of drinking water customers at Mount Compass. Pursuant to the ESC Act and the WI Act, the Commission considered it appropriate to make a new Regulatory Determination relating to the drinking water retail services provided by Robusto. That new determination will retain the terms of the 2013 Regulatory Determination but introduce a new revenue control requirement in order to address the matters identified in Robusto's pricing proposals and thereby protect consumers' long-term interests. The policy framework and legal requirements for that determination are outlined in the next chapter.

2.4 Robusto had sufficient opportunity to submit pricing proposals

The Commission has had various discussions with Robusto, formal and informal, on multiple occasions. Key submission dates are listed in Table 1. Of note, the first pricing proposal was submitted in March 2017, and the fourth pricing proposal was submitted in September 2019. There was considerable discussion between Robusto and the Commission regarding the value of assets to be

[29] NWI Pricing Principles, p.18.
[30] See, for example, ESC Act ss 6(b)(ii)(iv) and (v).

used in the pricing proposal, and two independent reviews were produced: an engineering report by Wallbridge Gilbert Aztec (prepared for Robusto) on the condition and replacement cost of assets, and an accounting report by BRM Holdich (prepared for the Commission) on the depreciated replacement cost of the assets.

Table 1: The lead up to and context of the Draft Regulatory Determination

Date	Key dates
August 2016	Robusto is granted a water retail licence by the Commission
September 2016 to March 2017	Robusto submits certain consumer protection obligations and engages in communications with Commission staff regarding these obligations and compliance
March 2017	**Pricing proposal 1 submitted to the Commission**
March 2017 to January 2019	Robusto and Commission staff engage in various discussions and communications regarding the pricing proposal, including in regards to the value of depreciation and the value of the water assets. Independent engineering and accounting reports undertaken in 2018 (by WGA and BRM Holdich). Robusto states that, while it disputes the valuation produced by BRM Holdich, it has adopted the valuation with a view to resolving the issue.
January 2019	**Pricing proposal 2 submitted to the Commission**
January 2019 to April 2019	Robusto and Commission staff engage in communications regarding the proposal. Robusto informed its proposal does not meet NWI Pricing Principles
April 2019	**Pricing proposal 3 submitted to the Commission**
April 2019 to September 2019	Robusto and Commission staff engage in further communications regarding the proposal, including in regards to the value of depreciation and the rate of return on assets. Robusto informed its proposal does not meet NWI Pricing Principles
September 2019	**Pricing proposal 4 submitted to the Commission**
December 2019	Commission informs Robusto that it has rejected the pricing proposal and that it will now make a Regulatory Determination

2.5 Customers have, and expressed, an interest in water pricing outcomes

Since Robusto commenced operations, its customers have contacted both the Commission and Robusto on various occasions to express concerns. Those concerns have been wide-ranging, from problems in customer billing to reliability of services to pricing issues and outcomes.

Further, to give an indication of customers' interest, in August 2017 the Commission was invited to attend a community session convened by the Hon Robert Brokenshire MP. That involved a question

and answer session and, according to a summary of minutes of the event (prepared by the convenors, not the Commission), approximately 86 people attended (though it is not known how many of the attendees were Robusto's customers).[31] The community session did not include Robusto.

2.6 Engagement with customers is an important input

All water retailers, irrespective of size, are expected to engage with their customers. This is an important mechanism through which retailers can understand the level and type of services that customers value and are willing to pay for, and take that information into account in pricing and investment decisions.

The Commission has not been made aware of the activities undertaken by Robusto to engage with its customers at Mount Compass in respect of the pricing proposals. In its March 2017 submission, Robusto stated its approach to customer engagement:[32]

> *As noted above it will be essential to engage customers in dialogue to bring them on the journey.*
>
> *We have engaged Corporate Communications to assist in public relations. Costs for their services have been included in our estimates for operation of the business.*
>
> *Once a new Pricing Structure is approved by ESCOSA, we propose to consult with ESCOSA to coordinate a letter from ESCOSA and a letter from Compass Springs to our customers explaining the new pricing model, its concurrence with ESCOSA's requirements and the stepped approach that has been offered by Compass Springs to help transition customers to the new pricing model.*
>
> *We anticipate this deferral in cost increases will help ameliorate the impact of price increased [sic] for our customers, and will reduce instances of hardship.*

Robusto's approach to customer engagement – outlined above – indicates it does not engage with its customers until the pricing proposal is to take effect. The Commission does not consider this approach is in the long-term interests of customers. Rather, engagement with customers should be forward-looking, seeking to understand customer needs and values, so they can be taken into account in pricing and investment decisions from the start, not at the end, of the process.

2.7 Summary of Robusto's September 2019 pricing proposal

In September 2019, Robusto submitted its fourth pricing proposal setting out proposed revenues and prices for drinking water retail services. Robusto proposed to collect annual revenues of approximately $3 300 per customer in 2020-21 in real terms (this figure excludes capital expenditure, which would add further costs per customer).

The Robusto proposal is discussed in detail in Chapter 4 but, in summary, was based on:

- operating expenditure of, on average, approximately $210 000 annually in real terms
- return on assets of $135 000 annually in real terms
- return of assets (depreciation) of $88 300 annually in real terms

[31] This is based on a meeting summary recorded by convenor Bill Coormans of a community meeting on 29 August 2017 held at the Community Sports & Social Club, Peters Terrace, Mount Compass.

[32] Robusto, *Pricing submission Compass Springs – ESCOSA*, March 2017, p. 17.

- claimed amortised losses (ie compensation for claimed losses in financial years 2016-17, 2017-18 and 2018-19 because costs were claimed to be above prices and a new pricing structure had not yet taken effect) of approximately $97 000 annually in real terms, and
- 172 customers from 2019-20 to 2023-24.

Although it was not included in the proposed prices, the proposal noted estimates of capital investment of $1.5 million, additional return on assets of $135 000 annually in real terms, and additional return of assets (depreciation) of $100 000 annually in real terms.

Robusto has not implemented its pricing proposal, as it was seeking to confirm compliance with the 2013 Price Determination.

2.8 Key issues related to the proposal

The method and estimates in Robusto's proposal raise a number of key issues. These issues form a central part of the reasoning underpinning the Commission's revenue determination.[33]

- To what extent does the proposal contain sufficient information to make a price determination? Relatedly, why are there **inconsistencies** between the operating expenditure data in annual compliance statements formally submitted to the Commission and operating expenditure included in the pricing proposal?
- What is the appropriate cost and level of **debt** for a small-scale water retailer? Relatedly, to what extent should the firm's actual loan structure be considered in the revenue determination?
- What is the appropriate calculation of **depreciation** (wear and tear) of the water assets at Mount Compass?
- What amount of **future investment** is needed in the water assets at Mount Compass? Relatedly, what amount of **customer engagement** has been undertaken to guide future capital investment plans?
- Should **customers compensate** Robusto for its claims as to potential losses incurred in the period between the first pricing proposal in March 2017 and the Commission's determination in 2020? If so, how should that compensation be calculated?

It is noted that the making of the determination is based on the Commission's position that each of Robusto's proposals was not compliant with the 2013 Regulatory Determination and would have led to revenue over-recovery. Robusto believes, however, that its proposals meet the 2013 Regulatory Determination including NWI Pricing Principles.

[33] ESC Act ss 6 and 25.

3 Policy framework and legal requirements

The Commission has made this Draft Regulatory Determination in accordance with its statutory objective, which is to protect the long-term interests of South Australian consumers with respect to the price, quality and reliability of essential services, and has complied with the requirements under the ESC Act and WI Act that relate to the making of a Regulatory Determination.

This chapter explains the statutory framework that applies to the making of this Regulatory Determination, and includes a general description of the elements of the statutory regime governing Robusto's operations that are relevant in the Regulatory Determination context.

3.1 Overview

The Commission has considered all relevant legislative objectives and factors in making this Draft Regulatory Determination. This chapter summarises the applicable legal and policy framework, and sets out the key legal requirements.

The existing 2013 Regulatory Determination was made under, and in accordance with, the requirements of the ESC Act and the WI Act (as explained later in this section). Its purpose is to protect consumer long-term interests with respect to the price, quality and reliability of water and sewerage services. It was made having regard and giving weight to the various statutory factors set out in the ESC Act and the WI Act (including consideration of the trade-off inherent in certain of those factors).[34]

As noted above, the Commission proposes that all of the terms of that 2013 Regulatory Determination (subject to any necessary changes to procedural or related requirements) will continue to apply to Robusto if the Commission moves to make a Final Regulatory Determination for it. The only difference will be the imposition of an additional requirement on Robusto when setting prices - it will need to adopt and comply with the maximum allowable revenue figure fixed under the determination.

Setting a maximum revenue allowance in accordance with the ESC Act and the WI Act, under which Robusto may recover the lowest sustainable cost of supplying drinking water services, allows Robusto sufficient revenue to efficiently deliver the services valued by customers, in the long term.

The Commission is not seeking to deliver low prices in the short term at the expense of long-term service delivery. That would be inconsistent with the Commission's requirement to protect customers' long-term interests.[35] Nor is the Commission seeking to set revenues above the efficient cost of service delivery, as that would deliver excessive profits and would be inconsistent with the long-term interests of consumers.

Overall, the Draft Regulatory Determination proposed is consistent with the Commission's primary objective of protecting the long-term interests of South Australian consumers with respect to the price, quality and reliability of essential services, as it fixes a maximum drinking water revenue to reflect the lowest sustainable cost of providing that service at the determined standards and in accordance with the obligations set by the Commission and other regulators.

Further, the Commission has fulfilled its statutory role under the WI Act and the ESC Act, in which it is required to:

- have regard to all relevant statutory factors and objectives (as explained in the following Chapters and in the appendices)

[34] Commission, *Economic Regulation of Minor and Intermediate Water and Sewerage Services,* pp. 1-5.
[35] ESC Act s 6(1).

- consider all relevant evidence available to it (including all submissions, data, information and representations provided and available to the Commission) and, thereafter
- proposed a Regulatory Determination which it considers best meets those statutory factors and objectives, informed by available evidence.

In considering these matters, the Commission notes that there is no single correct decision which arises from them, and that the decision-making process involves issues of discretion, judgement and degree (to the extent permitted under the statutory framework). In such cases, given the range of possible choices, the Commission recognises that different minds, acting reasonably, can be expected to make different choices on the same subject matter.[36]

This Draft Regulatory Determination therefore sets out the Commission's considered position as to the most reasonable (in the context of the nature and scope of the governing statutory regime and all the available evidence) form of regulation and revenue control to be applied to Robusto that best protects customers' long-term interests with respect to the price, quality and reliability of water retail services. In doing so, the Commission has considered and weighed the various relevant statutory factors in accordance with the submissions, data, information and representations provided and available to the Commission.[37]

As this is a draft, however, the Commission acknowledges that subsequent submissions, data, information and representations may cause it to change its position (based on considering all relevant factors) in the Final Regulatory Determination (if made) - provided that those changes still meet the objective of protecting customers' long-term interests. That process is of course the purpose of issuing this Draft Regulatory Determination for public consultation.

3.2 The Commission's functions and powers

The regulatory functions of the Commission are set out in section 5 of the ESC Act. Functions relevant to the economic regulation of Robusto include:

5 — Functions

The Commission has the following functions:

(a) to regulate prices and perform licensing and other functions under relevant industry regulation Acts;

(b) to monitor and enforce compliance with and promote improvement in standards and conditions of service and supply under relevant industry regulation Acts;

(c) to make, monitor the operation of, and review from time to time, codes and rules relating to the conduct or operations of a regulated industry or regulated entities.

In performing these functions, the following objectives (including the Commission's primary objective when undertaking any function) inform and guide the Commission. They are set out in section 6 of the ESC Act.

[36] *Re GasNet Australia (Operations) Pty Ltd* [2003] ACompT 6 (23 December 2003) at paragraph 29.
[37] ESC Act s 6 generally.

6 — Objectives

In performing the Commission's functions, the Commission must —

(a) have as its primary objective protection of the long term interests of South Australian consumers with respect to the price, quality and reliability of essential services; and

(b) at the same time, have regard to the need to —

(i) promote competitive and fair market conduct; and

(ii) prevent misuse of monopoly or market power; and

(iii) facilitate entry into relevant markets; and

(iv) promote economic efficiency; and

(v) ensure consumers benefit from competition and efficiency; and

(vi) facilitate maintenance of the financial viability of regulated industries and the incentive for long term investment; and

(vii) promote consistency in regulation with other jurisdictions.

With regard to the Commission's principal statutory objective, three elements of service delivery are captured – price, quality and reliability – and these are to be interpreted in a context of economic efficiency. That is particularly so in light of the fact that sections 6(b)(iv) and (v) of the ESC Act expressly refer to efficiency considerations.

3.3 The Commission's price determination powers under the ESC Act

Part 3 of the ESC Act sets out a legislative scheme governing the exercise of the Commission's price determination powers and functions.

Sections 25(1) and 25(2) have the combined effect of empowering the Commission to make price determinations where authorised to do so by a relevant industry regulation Act, which, in this case, is the WI Act.

Section 25(3) provides that a price determination may regulate prices, conditions relating to prices, or price fixing factors in any manner the Commission considers appropriate. Examples include:

(a) fixing a price or the rate of increase, or decrease, in a price

(b) fixing a maximum price, or maximum rate of increase, or minimum rate of decrease, in a maximum price

(c) fixing an average price for specified goods or services, or an average rate of increase or decrease in an average price

(d) specifying pricing policies or principles

(e) specifying an amount determined by reference to a general price index, the cost of production, a rate of return on assets employed, or any other specified factor

(f) specifying an amount determined by reference to quantity, location, period or other specified factor relevant to the supply of goods or services

(g) fixing a maximum average revenue, or maximum rate of increase, or minimum rate of decrease in maximum average revenue, in relation to specified goods or services, or

(h) monitoring the price levels of specified goods and services.

These examples are not exhaustive and the Commission may make a price determination to operate in a manner it considers appropriate, subject to any specific requirements of an industry regulation Act. In the case of the WI Act, certain requirements do exist, as discussed below.

As well as the general factors set out in section 6 of the ESC Act, section 25(4) specifies additional factors to which the Commission must have regard when exercising its price determination function. They include:

(a) the particular circumstances of the regulated industry and the goods and services for which the determination is being made

(b) the costs of making, producing or supplying the goods or services

(c) the costs of complying with the laws or regulatory requirements

(d) the return on assets in the regulated industry

(e) any relevant interstate and international benchmarks for prices, costs and return on assets on comparable industries

(f) the financial implications of the determination

(g) any factors specified by a relevant industry regulation Act, or by regulation under the Act, and

(h) any other factors that the Commission considers relevant.

Two further statutory imperatives arise under section 25(5) of the ESC Act in relation to price determinations. They are:

(a) wherever possible, the costs of regulation do not exceed the benefits, and

(b) the decision takes into account and clearly articulates any trade-off between costs and service standards.

Finally, section 25(6) provides that subsections 25(3), 25(4) and 25(5) have effect in relation to a regulated industry, subject to the provisions of the relevant industry regulation Act for that industry (in this case, the WI Act).

3.4 The Commission's price determination powers under the WI Act

Section 17 of the WI Act declares that the water industry is a regulated industry for the purposes of the ESC Act. Accordingly, the Commission has a general power to regulate prices in the water and sewerage industries.

Specifically, in terms of the price regulation function, the WI Act provides that:

7 — Functions and powers of Commission

(1) The Commission has (in addition to the Commission's functions and powers under the Essential Services Commission Act 2002) —

(a) the licensing, price regulation and other functions and powers conferred by this Act:…

The provisions of the WI Act that confer pricing powers on the Commission are set out in section 35. Consistent with the general discretionary powers under Part 3 of the ESC Act, the price determination power set out in section 35 of the WI Act is discretionary:

35 — Price regulation

(1) Subject to this section, the Commission may make a determination under the Essential Services Commission Act 2002 regulating prices, conditions relating to prices, and price fixing factors for retail services.

A 'retail service' is defined in section 4 of the WI Act to include a service constituted by:

(a) the sale and supply of water to a person for use (and not for resale other than in prescribed circumstances (if any)) where the water is to be conveyed by a reticulated system; or

(b) the sale and supply of sewerage services for the removal of sewage,

(even if the service is not actually used) but does not include any service, or any service of a class, excluded from the ambit of this definition by the regulations.

Accordingly, any operations or services falling outside the scope of the above definition are not subject to price regulation by the Commission.

3.5 Pricing Orders

The price regulation provisions of the WI Act also include a framework for the Treasurer to issue Pricing Orders. Section 35(4) provides that the Treasurer may issue a Pricing Order that:

(a) sets out any policies or other matters that the Commission must have regard to when making a determination

(b) specifies various parameters, principles or factors that the Commission must adopt or apply in making a determination, and

(c) relates to any other matter that the Treasurer considers to be appropriate in the circumstances.

Pursuant to section 35(3) of the WI Act, the Commission must comply with the requirements of any Pricing Order when making a determination. There are no specific requirements under the current Pricing Order which relate to the making of a Regulatory Determination for Robusto.

3.6 The broader context

As a provider of water retail services, Robusto's primary role is to source, treat, distribute and sell drinking water to homes and businesses. That essential service is highly regulated, including health, technical or environmental regulation as outlined below (see Table 2), with the Commission's role as economic regulator occurring within that broader legislative and policy framework.

Table 2: Entities involved in the regulation of the water industry

Entity	Overview of role within the water industry	Relevant legislation
Minister for Environment and Water	Administers the *Water Industry Act*, and is responsible for non-regulatory instruments (eg schemes) and appointing water industry entities.	*Water Industry Act 2012*
Treasurer	Sets licence fees for water industry entities, issues Ministerial directions and Pricing Orders.	*Water Industry Act 2012*
The Commission	Regulates customer service standards for the sale and supply of water and sewerage retail services. Assesses and may regulate the prudent and efficient costs for delivery of water and sewerage retail services. Regulator for the third party access regime.	*Essential Services Commission Act 2002* *Water Industry Act 2012*
Environment Protection Authority	Regulates the environmental impact of water businesses.	*Environmental Protection Act 1993*
Department for Environment and Water	Regulates State water resources, and other natural resource management matters.	*Natural Resources Management Act 2003*
SA Health	Regulates public health requirements for providing drinking water supplies.	*Safe Drinking Water Act 2011*
Technical Regulator	Regulates safety and technical matters.	*Water Industry Act 2012*
Consumer and Business Services	Responsible for administration of the Australian Consumer Law, covering consumer protection and fair trading, in South Australia. Regulates the relationship between landlords and tenants for the payment of rates and charges for water and sewerage services. Regulates the professional conduct of plumbing contractors.	*Competition and Consumer Act 2012* *Residential Tenancies Act 1995* *Plumbers, Gasfitters and Electricians Act 1995*
Department of Human Services	Develops customer hardship and concession policies.	*Water Industry Act 2012*
EWOSA	Handles complaints from customers of water retailers that have joined the scheme.	*Water Industry Act 2012* *Corporations Act 2001*

3.6.1 Government and other regulators

The South Australian Government develops and implements, through legislation, public policy in relation to public health, the environment, water supply and demand planning, technical standards, safety and social welfare, all of which have an impact on Robusto. The Commission and other regulators decide on matters assigned to them by the South Australian Government under that policy and legislative framework.

Further, the Commission's role is limited to assessing the efficient costs of providing essential services; it does not extend to assessing an individual customer's capacity to pay for essential services. The South Australian Government makes decisions about social policy, including policies designed to assist customers to meet the costs of accessing essential services.

3.6.2 Robusto

Robusto, as a licensed water service retailer, is responsible for making the day-to-day commercial decisions about the operations and investments required to deliver water services that meet its regulatory obligations. Under the 2013 Regulatory Determination, it is also responsible for setting the prices that apply to customers in accordance with the specified pricing principles and related requirements. Under this Draft Regulatory Determination it is further proposed that those prices must be also set in accordance with the maximum revenue cap set by the Commission.

3.6.3 Customers

Customers and consumer and industry advocates also have an important role to play in the economic regulation of Robusto, through understanding and representing to Robusto their views and positions, or by reflecting the views of their constituents in consultation and engagement processes. They may also advocate for changes where their customers' interests are not being met (for example, in relation to the price/service offerings being provided by Robusto).

As noted in this Draft Regulatory Determination, the Commission expects Robusto to improve its customer engagement processes and practices, and to reflect customers' views in its long-term asset management and financing decisions and plans.

4 Robusto's proposal

Robusto proposed a maximum revenue requirement for a five-year period. That requirement was made up of proposals for operating expenditure, return on assets, depreciation and claimed amortised losses. The proposal was for a cost per customer of, on average, approximately $3 100 per year (in December 2018 prices). It is noted that Robusto's proposals stated that, despite the maximum revenue amount, it would take a 'stepped increase' approach to pricing to mitigate potential instances of 'bill shock' and hardship on its customers.

4.1 Robusto's September 2019 pricing proposal[38]

Robusto's fourth pricing proposal (submitted in September 2019) has been considered by the Commission

The proposal involved several elements, including operating expenditure, return on assets, depreciation and claimed amortised losses. Those elements were combined to form a proposed revenue requirement for the period 2019-20 to 2023-24. It is noted that the proposal included information regarding capital investment in the network, but this was not included in Robusto's proposed price rises.

The proposal is shown below. The proposal has been adjusted, to the extent possible, to provide a basis of comparison with the Draft Regulatory Determination developed in Chapter 6.

Of note, the Commission has stated Robusto's proposal in financial years (2020-21 to 2024-25) and in real terms (in December 2018 dollars, a measure that presents the estimates adjusted for inflation).[39] Appendix C outlines the adjustments that translate the stated proposal into the table below.[40]

The proposal is for a revenue requirement per customer of, on average, approximately $3 100 per year ($3 300 in 2020-21) over a five-year period. It is, however, noted that Robusto's proposals stated that, despite this maximum revenue requirement, it would take a 'stepped increase' approach to pricing to mitigate potential instances of 'bill shock' and hardship on its customers.

In terms of individual items, the proposed operating expenditure includes a range of items, including but not limited to, bank fees and charges, licence fees, accounting fees, staff costs, public relations, and maintenance.[41] The cost for each individual operating cost item is not listed for confidentiality reasons.

---

38 Robusto, *Pricing submission Compass Springs – ESCOSA September 2019*, pp. 1-4. The submission included an attachment with the proposed figures and projections. It also included separate economic advice from Ernst and Young in respect of the drinking water pricing proposal.

39 Robusto's September 2019 proposal did not appear to be on a consistent price basis. Also, it was unclear if the proposal was for calendar or financial years.

40 Note that Appendix C shows the translation only for an 18-month period, as the proposed Draft Revenue Determination is for only an 18-month period (see Chapter 6).

41 Items in the proposed operating expenditure are: bank fees and charges, accounting fees, financial service charges, annual licence fees, water testing (compliance), infrastructure inspections and reporting, Insurance, statutory charges, legal fees, meter reading, staff costs (bookkeeping, management, vehicle), office accommodation, computer equipment, software licences, stationary and postage, web site maintenance and updating, public relations and communications, debt recovery, mediation and dispute resolution costs, provision for bad and doubtful debts, engineering consulting fees, emergency repairs and maintenance (contract staff, plumbers, suppliers), power costs (bore pumps, lighting), pump maintenance, bore maintenance, and UV system maintenance.

Table 3: Annual average of the revenue requirements in the Robusto proposals (December 2018 dollars)

	2020-21	2021-22	2022-23	2023-24	2024-25
Operating expenditure ($)	251 954	239 563	188 966	183 803	183 803
Depreciation ($)	88 300	88 300	88 300	88 300	88 300
Return on assets ($)	135 000	135 000	135 000	135 000	135 000
Amortised losses ($)	97 057	97 057	97 057	97 057	97 057
Revenue requirement ($)	572 311	559 920	509 322	504 159	499 495
Revenue requirement per customer ($)	3 327	3 255	2 961	2 931	2 931
Customer numbers	172	172	172	172	172

The proposed depreciation in the revenue requirement has been calculated as $88 300 per year. The calculation is based on an asset value of $485 000 for approximately for 65 percent of the water distribution network with remaining asset lives of 60 years, $262 000 for approximately 35 percent of the water distribution network with remaining asset lives of zero to five years, $93 000 for bores with remaining lives of 10 years, and $60 000 for water tanks with remaining lives of zero to ten years.

The proposed return on assets has been calculated as $135 000. It was based on an asset value of $900 000 multiplied by a pre-tax rate of return of 15 percent. The Commission notes that, in Robusto's calculation:

- the $900 000 asset value is held constant over the forward horizon, so it can be inferred that the asset value in this calculation value is considered constant in real terms
- the submission explains that the $900 000 asset value is calculated by inflating $862 000 by some estimate of inflation (as an approximate to estimate the real value of the asset), and
- the pre-tax rate of return is multiplied by the asset value, so it can be inferred that the actual rate of return being used for the proposal should be considered a 15 percent pre-tax *real* rate of return.[42]

The proposed losses to be included have been calculated as $97 057, to account for claimed losses for the period from 30 June 2016 to 31 December 2020. The losses are argued to be compensation for a period in which costs were above prices, and over that period a new pricing structure had not yet taken effect. The proposal does not outline the calculation in detail. [43]

[42] Robusto, *Pricing submission Compass Springs – ESCOSA September 2019*, pp. 1-4, and attached projections.
[43] Robusto, *Pricing submission Compass Springs – ESCOSA September 2019*, pp. 1-4, and attached projections.

Table 4: Robusto's depreciation calculation[44]

	Asset values ($)	Economic life (years)	Depreciation (annual $)
Water distribution network (65%)	485 000	60	8 000
Water distribution network (35%)	262 000	0-5	65 000
Bores	93 000	10	9 300
Water tanks	60 000	0-10	6 000
Total	900 000	~10	88 300

4.2 The evolution of Robusto's proposals

Robusto submitted four proposals between March 2017 and September 2019 (Table 5). While certain aspects of the proposals have been unchanged, such as operating expenditure, others have changed, such as the value and life of the economic assets. The latter two items have led to a small decline in the proposals since March 2017 (for the depreciation and return on assets components).

Table 5: Revenue requirements in Robusto's proposal (December 2018 dollars)

	March 2017[45] ($)	January 2019[46] ($)	April 2019[47] ($)	September 2019[48] ($)
Annual average over the five year period proposed by Robusto				
Operating expenditure	227 447	227 447	227 447	227 447
Profit on operating costs	34 117			
Depreciation	210 000	86 200	88 300	88 300
Return on assets	157 500	157 500	157 500	135 000
Amortised losses		45 060	45 060	63 354
Revenue requirement per customer	3 571	3 028	3 039	2 991

44 The Robusto proposal did not present an average estimated life for total assets on page 2 of the submission. The estimate of ten years is inferred from the data.

45 Robusto, *Pricing submission Compass Springs – ESCOSA March 2017*.

46 Robusto, *Pricing submission Compass Springs – ESCOSA January 2019*.

47 Robusto, *Pricing submission Compass Springs – ESCOSA April 2019*.

48 Robusto, *Pricing submission Compass Springs – ESCOSA September 2019*.

Table 6: Robusto's proposals for asset values and the economic life of assets at each proposal

	March 2017[49]	January 2019[50]	April 2019[51]	September 2019[52]
Depreciation				
Asset value ($)	1 050 000	862 000	880 000[53]	883 000[54]
Average life (years)	5	10	10	10
Return on assets				
Pre-tax real (percent)	15	15	15	15
Asset value ($)	1 050 000	1 050 000	1 050 000	900 000

4.3 Issues identified in the Robusto proposals

Robusto's proposal has several factors that indicate that it would be unlikely to be consistent with efficient costs and compliant with NWI Pricing Principles, and thereby is not in the long-term interests of consumers.

4.3.1 The proposal appears to have been developed with insufficient customer consultation

The Commission expects all retailers to consider the needs and values of its customers when making pricing and investment decisions. However, based on the information available to the Commission, it is not clear that Robusto has undertaken or sought to undertake any meaningful customer engagement regarding its pricing proposal/s.[55]

Further, the Commission's Charter of Consultation and Regulatory Practice,[56] as well as the legal framework within which the Commission operates (outlined earlier), requires that the Commission's processes are transparent and provide for meaningful stakeholder engagement and consultation. This requires an appropriate level of information to be publicly available, in order for stakeholder engagement and consultation to be undertaken on an informed basis. To date, this has not been the case for the pricing proposals put forward by Robusto.

4.3.2 Robusto's proposal has several limitations

The identified issues in Robusto's proposal include:

[49] Robusto, *Pricing submission Compass Springs – ESCOSA March 2017*.
[50] Robusto, *Pricing submission Compass Springs – ESCOSA January 2019*.
[51] Robusto, *Pricing submission Compass Springs – ESCOSA April 2019*.
[52] Robusto, *Pricing submission Compass Springs – ESCOSA September 2019*.
[53] Stated as $900 000, but calculations are based on $880 000.
[54] Stated as $862 000, but calculations are based on $883 000.
[55] Robusto, *Pricing submission Compass Springs – ESCOSA March 2017*.
[56] Commission, *Charter of consultation and regulatory practice*, November 2019, available at https://www.escosa.sa.gov.au/ArticleDocuments/11387/20191112-Corporate-CharterOfConsultationRegulatoryPractice.pdf.aspx?Embed=Y.

- information gaps, notably regarding the size and type of loan finance used to acquire the water retail business
- inconsistency with other data sources, including with annual compliance reports submitted to the Commission
- apparent over-estimates of operating expenditure for a business of its size and scale
- inaccurate calculations, such as in the application of the asset 'rollover methodology', and in the approximation of asset lives, and
- insufficient evidence used to justify and support a rate of return on assets that is well above the cost of finance that was actually obtained by Robusto.

Taken together, these limitations suggest that the costing proposal cannot be considered to be efficient, and would not meet the NWI Pricing Principles or the requirements of the 2013 Regulatory Determination. These technical limitations are summarised below and discussed in more detail in Chapter 6.

As noted above, Robusto's proposal/s do not adopt a consistent price base. Given this, the Commission's analysis has been undertaken in December 2018 prices. This reflects the price base consistent with the independent engineering assessment of the assets undertaken by Wallbridge Gilbert Aztec (**WGA**), which was contained in a report produced by BRM Holdich regarding the existing value of the Mount Compass asset stock.[57]

Robusto has stated that, while it disputes the valuation produced by BRM Holdich, it adopted the valuation produced by BRM Holdich for its pricing proposal with a view to resolving the issue.[58]

Table 7: Summary of the limitations of Robusto's proposal

Aspect of the proposal	Commission's concerns
Operating costs	▶ Inconsistency across data sources. ▶ Potential double counting of financing costs ▶ Costing proposals that may not reflect efficient costs ▶ No transparency regarding any common cost apportionment
Depreciation and return	▶ The use of two starting asset values ▶ Incorrect application of the 'asset rollover' methodology ▶ Asset lives that do not reflect the life of the asset stock ▶ Insufficient justification of the proposed rate of return ▶ Incorrect application of the rate of return
Amortisation of losses	▶ Lack of transparency regarding methodological approach
Financing structure	▶ Lack of transparency regarding the financial structure and costs
Customer numbers	▶ 172 customers used by Robusto, but compliance reports state 174
Price base	▶ Inconsistent price base used

[57] BRM Holdich, *Robusto Investments Pty Ltd – Water Pricing Submission*, report prepared for Commission and Robusto, 10 January 2019, pp. 1-6.

[58] Robusto, *Pricing submission Compass Springs – ESCOSA September 2019*, p. 1.

5 Assessment framework and methodology

Proposed methodology for determination

The Draft Regulatory Determination proposes a revenue cap to be calculated using the standard 'building block' approach to access regulation. A similar methodological approach was applied by the Commission in SA Water Regulatory Determination2020 (SAW RD20).

This is an important regulatory approach because investment in water infrastructure benefits customers over many decades and, accordingly, the infrastructure investment costs are shared between the customers of today and tomorrow.

The building block approach recognises this through two key costs: the cost of financing new and existing infrastructure (the return on regulated assets) and the expected wear and tear over the life of the infrastructure (regulatory depreciation). Both the return on assets and regulatory depreciation are dependent in part on the value of the infrastructure asset base.

As the Commission's approach is based on standard and generally-accepted (within Australia and internationally) regulatory methodologies, the approach followed in this determination promotes consistency in regulation with other jurisdictions (refer ESC Act, section 6(b)(vii)).

The Draft Regulatory Determination proposes a revenue requirement for Robusto to be in place for 18 months, allowing for the continued provision of drinking water retail services and giving Robusto the opportunity to provide appropriately detailed information about its long-term investment and financing plans. In doing so, the Commission expects Robusto to engage with its customers genuinely and transparently, and to take into account the type, level and quality of services that customers value and for which they are willing to pay.

During that time, the Commission will assess the need for a further new determination from 1 October 2022, including a consideration of whether or not Robusto can satisfy the Commission that it should revert to being regulated under the 2013 Regulatory Determination (i.e., no further need for a Commission-specified revenue control).

In addition, the Commission proposes that for every price change (both structural and monetary) Robusto wishes to implement in the 18-month period between the 1 April 2021 and 30 September 2022:

- Robusto will be required to provide its customers with notification of the change one month prior to implementation. A bill impact assessment will also be provided to each customer.
- Robusto will be required to provide the Commission with notification of the change three months prior to implementation. An assessment explaining how Robusto will remain in compliance with its revenue cap must be provided.

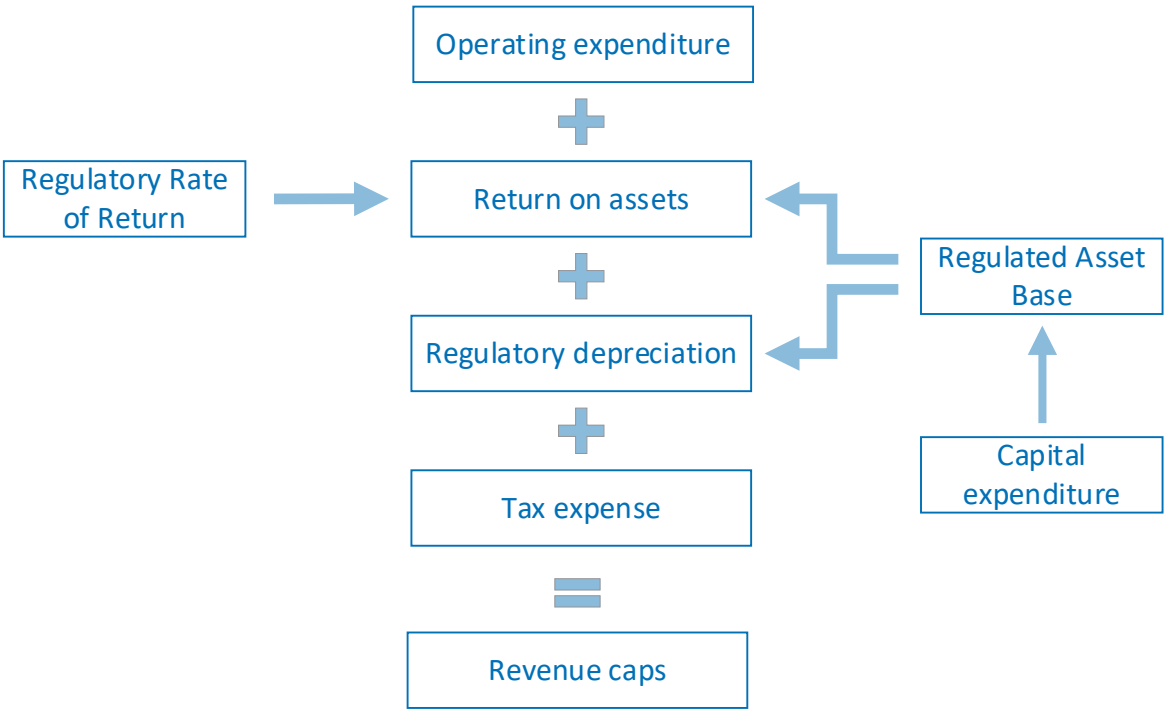
5.1 Proposed determination methodology

The Commission adopts a 'building block' or revenue requirement approach to assessing the maximum allowable revenue for regulated businesses and proposes to do so for this Draft Regulatory Determination (see, for example, Chart 1).

That approach is based on only including efficient costs when calculating the maximum allowable revenue. The Commission considers that efficient cost relates to the forecast efficient operating expenditure, return on assets, regulatory depreciation and tax expense to determine the total efficient

costs of providing each service. For example, a similar approach was used in SAWRD20.[59] As noted earlier, this approach to setting revenues aligns with the NWI principles and the legal framework within which the Commission operates. As it is based on standard and generally-accepted (within Australia and internationally) regulatory methodologies,[60] the approach followed in this determination promotes consistency in regulation with other jurisdictions (refer ESC Act, section 6(b)(vii)).

Chart 1: Simple example of cost building blocks for water retail services



Efficient costs need not be the costs the regulated business is actually incurring, and it is for the regulated business to demonstrate that its actual costs represent an efficient cost base.

In the context of small-scale network provision, the Commission also has regard to the cash position resulting from applying the revenue requirement approach.[61]

The cash flow position can be affected by the structure of the regulated entity's debt. If, for instance, the loan term is shorter than the average asset life, then the cost of the loan is not spread over the life of the assets, resulting in its current customers paying more for assets than its future customers. However, as customer benefits are spread over the life of the assets, it is more appropriate that customers pay for assets in an even manner over the asset life. As highlighted earlier, in line with the requirements of the ESC Act, the Commission's primary statutory objective is the *'protection of the **long term** interests of South Australian consumers with respect to the price, quality and reliability of essential services'*. (emphasis added)

In terms of calculating the maximum allowable revenue for a regulated business, if the owner of that business has various consolidated business interests, the regulated business has to be split out from the other business interests. Therefore, in applying this approach to Robusto, the Commission is only

59 Commission, *SA Water Regulatory Determination 2020 – Final Determination Statement of Reasons*, p. 48.
60 Petersen et al, *Access Regulation in Australia*, Thomson Reuters (Professional) Australia Ltd, 2016, pp. 69-100; and Decker, Modern Economic Regulation – An introduction to theory and practice, Cambridge University Press, 2015, pp. 103-139.
61 Refer ESC Act, s25(4)(f).

concerned with identifying the maximum allowable revenue (based on efficient costs) for Robusto's water retailing business.

5.2 Calculating the revenue requirement: a hypothetical example

To illustrate how the revenue requirement works in practice, the following box provides a stylised example.

Box A1: Example of calculating of a maximum revenue requirement

In this hypothetical example, a maximum allowable revenue requirement is developed for a three year period for a regulated business that also provides other services. No inflation is assumed and the key inputs for the regulated business that provide for efficient costs are the following:

Annual direct operating costs of $15 000.

Annual common costs of $10 000, with a 50 percent allocation to regulated business.

A starting value of the asset stock of $200 000, with a remaining asset life of 45 years.

Capital expenditure of $10 000 in year 2, with an asset life of 20 years.

Yearly loan repayments of $10 000 ($2 000 interest and $8 000 principal).

A rate of return of 7.5 percent.

A tax rate of 30 percent.

Stage 1: Allowable operating costs

Allowable operating costs are calculated by adding together annual direct operating costs and the common costs allocation to the regulated business as follows.

Table A1: Allowable operating costs

	Year 1 ($)	Year 2 ($)	Year 3 ($)
Direct operating costs	15 000	15 000	15 000
Common costs allocated to the regulated business	5 000	5 000	5 000
Total allowable operating costs	20 000	20 000	20 000

Stage 2: The 'asset rollover' and allowable depreciation and return

The second stage in calculating the maximum allowable revenue requirement is to undertake the 'asset rollover'. This describes how the asset stock will evolve over the three-year period based upon the inputs used. It calculates the allowable depreciation and return elements of the maximum allowable revenue.

These allowances reflect how the efficient costs of the assets will be recovered over the life of the asset. It should be noted that, in part, the allowable depreciation and return are used to cover costs associated with financing the purchase of the assets. These costs relate to loans and/or equity and are included in stages 4 and 5 of this example.

Table A2: Asset rollover and depreciation

	Year 1	Year 2	Year 3
Starting value of the asset stock ($)	200 000	$195 556	191 111
Asset life of starting value of the asset stock (years)	45	44	43
Annual depreciation of starting value of the asset stock ($)	4 444	4 444	4 444
Ending value of the starting asset stock ($)	195 556	191 111	186 667
Capital expenditure ($)		10 000	9 500
Asset life of capital expenditure (years)		20	19
Annual depreciation of capital expenditure undertaken in year 2 ($)		500	500
Ending value of capital expenditure undertaken in year 2 ($)		9 500	9 000
Total starting value of the asset stock ($)	200 000	205 556	200 611
Total allowable depreciation ($)	**4 444**	**4 944**	**4 944**
Total ending value of the asset stock ($)	195 556	200 611	195 667
Average value of the asset stock ($)	197 778	203 083	198 139
Allowable rate of return	7.5%	7.5%	7.5%
Total allowable return ($)	**14 833**	**15 231**	**14 860**

In this example:

- The depreciation schedules are calculated by dividing the starting asset value each year by the remaining asset life.
- The allowable return is calculated by multiplying the yearly average value of the asset stock by the allowable rate of return.

Stage 3: Maximum allowable revenue requirement before tax

Stages 1 and 2 identify three elements of the maximum allowable revenue, allowable operating costs, depreciation and return. These are added together to obtain the maximum allowable revenue before tax, as follows:

Table A3: Maximum allowable revenues before tax

	Year 1 ($)	Year 2 ($)	Year 3 ($)
Total allowable operating costs	20 000	20 000	20 000
Total allowable depreciation	4 444	4 944	4 944
Total allowable return	14 833	15 231	14 860
Maximum allowable revenue requirement before tax	**39 278**	**40 176**	**39 805**

Stage 4: Allowable tax

The next stage is to identify the allowable tax allowance based upon the efficient cost inputs, as per the following.

Table A4: Allowable tax calculation

	Year 1	Year 2	Year 3
Maximum allowable revenue requirement before tax ($)	39 278	40 176	39 805
Less: Total allowable operating costs ($)	20 000	20 000	20 000
Less: Total allowable depreciation ($)	4 444	4 944	4 944
Less: Total allowable interest ($)	2 000	2 000	2 000
Total allowable taxable income ($)	**12 833**	**13 231**	**12 860**
Allowable tax rate	30%	30%	30%
Total allowable tax ($)	**3 850**	**3 969**	**3 858**

The total allowable taxable income is multiplied by the allowable tax rate. This gives the total allowable tax.

Step 5: Maximum allowable revenue and financial position

The allowable tax calculated in Step 4 is added to the maximum allowable revenue before tax. This provides the overall maximum allowable revenue. The overall financial position of the regulated business based upon the efficient cost allowances is as follows:

Table A5: Maximum allowable revenue position

	Year 1 ($)	Year 2 ($)	Year 3 ($)
Maximum allowable revenue requirement before tax	39 278	40 176	39 805
Total allowable tax	3 850	3 969	3 858
Maximum allowable revenue	**43 128**	**44 145**	**43 663**
Operating statement			
Maximum allowable revenue	43 128	44 145	43 663
Less: Total allowable operating costs	20 000	20 000	20 000
Profit before depreciation, interest and tax	**23 128**	**24 145**	**23 663**
Less: Total allowable depreciation	4 444	4 944	4 944
Less: Total allowable interest	2 000	2 000	2 000
Less: Total allowable tax	3 850	3 969	3 858
Profit after depreciation, interest and tax	**12 833**	**13 231**	**12 860**
Cash position			
Maximum allowable revenue	43 128	44 145	43 663
Less: Total allowable operating costs	20 000	20 000	20 000
Less: Total allowable interest	2 000	2 000	2 000
Less: Total allowable loan principal repayments	8 000	8 000	8 000
Less: Total allowable tax	3 850	3 969	3 858
Cash position	**9 278**	**10 176**	**9 805**

Summary

Overall, the key points to note are:

- The extent to which the elements of revenue requirement calculation are interconnected and result in an internally consistent framework, given the inputs.
- The amount of information and/or assumptions required to develop an appropriately informed assessment.

- It is the responsibility of the regulated business to provide the Commission with accurate, consistent, complete and justified information with respect to its proposals, and in the context of efficient costs.

5.3 The regulatory period: 1 April 2021 to 30 September 2022

The Commission proposes that a revenue requirement be in place for an 18-month period from 1 April 2021 to 30 September 2022. That period has been proposed to allow continued provision of drinking water retail services at Mount Compass, while allowing Robusto to undertake detailed planning of its long-term investment. As noted in Robusto's first proposal, parts of the network need replacement. While Robusto's proposal did not include capital investment in its calculations of proposed price rises, it provided estimates of capital investment. Those estimates did not align with the economic lives of the asset stock, and do not appear to have been put together taking into account the needs of, and service levels valued by or willingness to pay of customers at Mount Compass.

It is important to note that this proposed approach does not recommend for, say, a second 18-month period to operate following the period of 1 April 2021 to 30 September 2022. The proposed short-term regulatory period is not standard regulatory practice; for example, SAWRD20 sets out revenue caps for a four-year period. However, information gaps suggest that it is in the long-term interests of consumers to make a determination for the upcoming 18-month period and potentially to follow this with a subsequent determination that can incorporate the assessment of long-term investment plans once those information gaps have been filled. Those information deficiencies can be addressed by Robusto as it engages with its drinking water customers and the Commission.

Therefore, during the 18-month period, and having regard to the extent to which Robusto engages with the issues and practices outlined above, the Commission will assess the need for a further new determination from 1 October 2022. This will encompass consideration of whether or not Robusto can satisfy the Commission that it should revert to being regulated under the 2013 Regulatory Determination (ie, no further need for a Commission-specified revenue control).

5.4 Robusto will engage with customers on pricing

As noted above, the Draft Regulatory Determination proposes a revenue cap. In setting prices for drinking water retail services to apply during the regulatory period, Robusto must not exceed that cap.

However, it is important that monopoly providers of retail drinking water services are transparent with price changes and explain to customers how and why prices are changing. For that reason, the Commission proposes that for every price change (both structural and monetary) that Robusto implements in the 18-month period between the 1 April 2021 and 30 September 2022, it will be required to provide notification to:

- customers one month prior to implementation: a bill impact assessment, and
- the Commission three months prior to implementation: an assessment explaining how Robusto will remain in compliance with its revenue cap.

6 Assessment

6.1 Draft Regulatory Determination Summary

The Draft Regulatory Determination is to apply a maximum allowable revenue cap of $283 337, in December 2018 prices, for the 18-month period from 1 April 2021 to the 30 September 2022. Including estimated inflation, the allowable revenue cap is $287 976.[62]

In terms of the average customer bill, if Robusto chooses to price in a manner that reaches this revenue cap, this will be in the region of $1 086 per year (in December 2018 prices), or $1 103 including estimated inflation. This represents an increase of approximately 21 percent relative to the existing average customer bill.

By way of comparison, the Commission estimates that Robusto's proposal, after relevant adjustments, would have resulted in an increase in the average customer bill of 264 percent (in December 2018 prices). This would be an average yearly bill of $3 279 ($3 334 including estimated inflation).

The key driver underpinning the average bill increase is factoring into prices the efficient costs of using and funding the existing assets supplying Robusto's customers. Historically, prices have not been set to cover these costs. This places system sustainability at risk over the longer term. The Draft Regulatory Determination seeks to mitigate this risk at an efficient cost for customers. This reflects the Commission's primary objective under the ESC Act.

The table below summarises the Draft Regulatory Determination and compares it with Robusto's September 2019 proposal.[63] The Draft Regulatory Determination does not include capital expenditure, as there is currently insufficient information to establish the level of expenditure that would be prudent and efficient.

Note that in the tables throughout Chapter 6, the 50 percent for financial year 2020-21 indicates that the calculation is for the six month period 1 April 2021 to 30 September 2021, and the financial year 2021-22 is for 1 October 2021 to 30 September 2022.

Table 8: Summary of Draft Regulatory Determination

December $2018	2020-21	2021-22	2020-21 (50%)	2021-22 (100%)	Total
Draft Regulatory Determination					
Maximum allowable revenue ($)	195 582	185 546	97 791	185 546	283 337
Customer numbers	174	174			174
Average customer bill ($)	1 124	1 066			1 086
Historical average yearly bill ($)	900	900			900

[62] The Commission has assumed that there will be no inflation from December 2018 to December 2020 owing to the effects of COVID-19 on the Australian economy. From December 2020 onwards, inflation is assumed to be 2.5 percent (at the mid-point of the RBA's 2-3 percent target band).

[63] See Appendix C for an explanation of the adjustments undertaken and a reconciliation with Robusto's September 2019 proposal.

Percentage change	25	18			21
Robusto's fourth proposal (adjusted)					
Maximum allowable revenue ($)	572 311	559 920	286 155	559 920	846 075
Customer numbers	172	172			172
Average customer bill ($)	3 327	3 255			3 279
Historical average yearly bill ($)	900	900			900
Percentage change	270	262			264

6.2 Revenue requirement

The table below summarises the Draft Regulatory Determination according to each element included in the maximum allowable revenue cap. The table is compared with Robusto's final proposal.

Table 9: Summary of maximum allowable revenue

December $2018	2020-21 ($)	2021-22 ($)	2020-21 ($) (50%)	2021-22 ($) (100%)	Total
Draft Regulatory Determination					
Operating costs	125 461	116 168	62 730	116 168	178 898
Depreciation	24 804	24 804	12 402	24 804	37,206
Return on capital	44 009	42 644	22 004	42 644	64 649
Amortised losses	0	0	0	0	0
Tax	1 308	1 930	654	1 930	$2 584
Maximum allowable revenue	195 582	185 546	97 791	185 546	283 337
Robusto's final proposal (fourth proposal adjusted)					
Operating costs	251 954	239 563	125 977	239 563	365 540
Depreciation	88 300	88 300	44 150	88 300	132 450
Return on capital	135 000	135 000	67 500	135 000	202 500
Amortised losses	97 057	97 057	48 528	97 057	145 585
Tax	0	0	0	0	0
Maximum allowable revenue	572 311	559 920	286 155	559 920	846 075
Difference (Draft Regulatory Determination *less* Robusto's proposal) (red numbers represent negatives)					
Operating costs	126 494	123 396	63 247	123 396	186 642

Depreciation	63 496	63 496	31 748	63 496	95 244
Return on capital	90 911	92,356	45 496	92 356	137 851
Amortised losses	97 057	97 057	48 528	97 057	145 585
Tax	1 308	1 930	654	1 930	2 584
Maximum allowable revenue	376 726	374 374	188 364	374 374	562 738

6.3 Operating costs

As illustrated above, the Draft Regulatory Determination proposes to reduce Robusto's operating cost proposal by 51 percent to be $178 898 (in December 2018 dollars).

Robusto's operating cost proposal in September 2019 remained essentially unchanged from the first proposal in March 2017. To make the proposal appropriately comparable, the operating cost profile has therefore been shifted forward, with a consumer price index (CPI) inflation assumption of 3.26 percent adopted. This is summarised in the table below for the relevant years for which the Draft Regulatory Determination would apply.

Table 10: Evolution of Robusto's operating cost submission

	2017-18	2018-19	2019-20	2020-21	2021-22
Robusto's proposals					
March 2017 proposal ($): Mar $2017	244 000	232 000	183 000	178 000	178 000
September 2019 proposal ($): Nominal prices			258 860	253 513	205 968
Robusto's inflation assumption (%)		3.00	6.09	9.27	12.55
September 2019 proposal ($): Mar $2017			244 000	232 000	183 000
Robusto's proposal (times shifted for the purposes of the Draft Regulatory Determination)					
September 2019 proposal ($): Mar $2017				244 000	232 000
Inflation uplift (%): $Mar 2017 to Dec $2018				3.26	3.26
September 2019 proposal ($): Dec $2018				251 954	239 563

This means that the starting point for the Commission's assessment of Robusto's operating cost proposal primarily relates to its original March 2017 submission and the information provided to support that proposal. In its March 2017 submission, Robusto splits its operating costs into 24 categories and provides a cost estimate for each one. This results in a total annual cost of $244 000 in prices of the day (March 2017 prices) for what the Commission understands to be 2017-18.[64]

Robusto made various adjustments to the following cost categories over its proposed subsequent four years of the proposal: legal fees, public relations and communications, debt recovery, mediation and

[64] Robusto's March 2017 submission does not explicitly identify this in its proposal and the Commission has inferred this based on the information provided.

dispute resolution, provision for bad and doubtful debts, and emergency repairs and maintenance. The profile proposed for these cost categories by Robusto is shown in the table below.

Table 11: Selected operating cost profiles, ($)

	2017-18	2018-19	2019-20	2020-21	2021-22
Robusto's proposal (March 2017 dollars)					
Legal fees	10 000	10 000	10 000	5 000	5 000
Public relations and communications	24 000	24 000	12 000	12 000	12 000
Debt recovery, mediation, dispute resolution	20 000	20 000	10 000	10 000	10 000
Provision for bad/doubtful debts	36 000	24 000	12 000	12 000	12 000
Emergency repairs and maintenance	20 000	20 000	5 000	5 000	5 000
Total	110 000	98 000	49 000	44 000	44 000
Robusto's proposal (time shifted, March 2017 dollars)					
Legal fees				10 000	10 000
Public relations and communications				24 000	24 000
Debt recovery, mediation, dispute resolution				20 000	20 000
Provision for bad/doubtful debts				36 000	24 000
Emergency repairs and maintenance				20 000	20 000
Total				110 000	98 000
Robusto's proposal (time shifted, December 2018 dollars) Inflation uplift to convert March 2017 to December 2018 of 3.26%					
Legal fees				10 326	10 326
Public relations and communications				24 782	24 782
Debt recovery, mediation, dispute resolution				20 652	20 652
Provision for bad/doubtful debts				37 174	24 782
Emergency repairs and maintenance				20 652	20 652
Total				113 586	101 195
Total *excluding emergency repairs and maintenance*				92 934	80 543

In assessing Robusto's operating cost proposal the Commission considered the following questions.

- Is there evidence that the proposal is consistent and verifiable across information sources?
- Is there any double counting?
- Is there the potential for common cost allocation and is this transparent?
- Is there evidence the proposal represents efficient costs?

6.3.1 Evidence that the proposal is consistent and verifiable across information sources?

Robusto must provide an annual return to the Commission as part of its licence conditions (signed off by the sole Director). The information provided is required to be a true reflection of the business.

Those annual returns include information on operating costs. The relevant annual return information available for 2016-17, 2017-18 and 2018-19 was compared with Robusto's March 2017 pricing proposal. (Note: the data has been removed from Table 12 for reasons of confidentiality.) The Commission's review of the data indicates that Robusto's proposal for operating costs (excluding finance costs) appears to be inconsistent with the operating costs excluding finance costs contained within the annual returns submitted to the Commission.

As such, Robusto's operating cost proposals are not, as yet, verifiable relative to the other formal regulatory information that it has provided to the Commission.

Table 12: Robusto's annual returns[65]

	2016-17 ($)	2017-18 ($)	2018-19 ($)
Annual return: Table FR1.1			
Employee costs			
Materials, contracts and other services			
Depreciation			
Finance costs			
Total expenses			
Less finance costs			
Annual return: Table FR1.2			
Operations and maintenance			
Treatment			

[65] The Commission has taken into consideration the information from Table 12. The Commission's general practice is to publicly provide sufficient supporting information and analysis to allow interested stakeholders to understand the reasons for its decisions. However, for reasons of confidentiality the information has not been disclosed in the Commission's Draft Regulatory Determination.

	2016-17 ($)	2017-18 ($)	2018-19 ($)
Customer service and billing			
Licence fees			
Corporate overheads			
Depreciation			
Other operating expenditure			
Total operating costs			
Less finance costs			
Robusto's proposal (March 2017 prices)			
Operating costs			

6.3.2 Is there evidence of the potential for double counting?

The annual return data includes financing costs as part of Robusto's expenses/operating costs. Robusto's pricing proposal does not include financing costs as one of the 24 operating cost components. This is relevant for the Commission's reasoning with respect to the potential for double counting and the implications this has for efficient costs, in the context of calculating maximum allowable revenue.

The example box in Chapter 5 described the methodological approach used when calculating maximum allowable revenue. A key part of that methodology is that operating costs should not include financing costs. This is because efficient financing costs are recovered through time as the costs associated with the asset stock are recovered through the return and depreciation allowances (see steps 2, 4 and 5 of the example box). If financing costs are included within operating costs when applying the revenue requirement methodology, then they will be double counted.

If the annual return data, as reported, are used to define the operating costs that should be included to calculate maximum allowable revenue, the financing costs would need to be removed. This would give operating costs that are significantly less than the costs included in Robusto's pricing proposal, which does not appear to include financing costs. This could suggest that Robusto's operating cost proposal is not representative of efficient costs.

The Commission acknowledges that, despite the fact the annual return data should represent a true and fair picture of Robusto's business, it is possible that the allocation to financing costs in the annual compliance return actually relates to other operating cost categories. It might also be the case that financing costs have been spread across all or some of the 24 cost categories included in Robusto's pricing proposal, but that has not been clearly articulated. Each of these, or a combination of these, would have differing implications for the efficient level of costs.

Notwithstanding this, at this point in the process of developing the regulatory determination, the Commission is of the view that this is a material issue, given the scale of the business and the methodology underpinning the revenue requirement framework. If spread across a customer base, of what is now approximately 174 customers, it would impact bills by several hundred dollars per customer per year.

6.3.3 Is there the potential for common cost allocation and is this transparent?

The water retail business is one of a number of affiliated businesses. As stated in its first proposal to the Commission, Compass Springs (the trading company of Robusto) acquired the water retail business in parallel with acquisition of the affiliated golf course business and land (bought by Capitoline Property Pty Ltd).

There is, therefore, the potential for the water retail business to have been allocated a proportion of the common costs relating to all of these interests. Based on the information available to the Commission, it is not able to verify the extent to which Robusto's operating costs proposals include common costs, what proportion of the common cost might have been allocated to the water retail business and why this represents an efficiently incurred cost.

A condition of Robusto's water retail licence is that it must maintain accounting and other records and reporting arrangements which enable separate regulatory statements to be made, operating performance metrics to be measured, and information used in the preparation of regulatory statements and operating performance to be verified.

6.3.4 Is there evidence that the proposal represents efficient costs?

The Commission's reasoning is that Robusto's operating cost submission does not represent efficient costs.[66] First, all of the previous points discussed above would need to be rectified in order to develop a transparent operating cost baseline from which to assess efficient costs. Second, once this is available, Robusto would have to justify why this operating cost baseline represented efficient operating costs.

While Robusto provided an explanation as to how it has calculated the cost associated with each cost category, it has not explained, to the Commission's satisfaction, why the outcome of these calculations represents efficient costs. In the context of this point, of particular relevance is the fact that Robusto's operating cost allowances provided for an initial step increase in the following cost categories:

- legal fees
- public relations and communications
- debt recovery, mediation and dispute resolution, and
- provision for bad and doubtful debts.

The step increase in these cost components largely appears to relate to the fact that Robusto's pricing proposal sought to significantly increase average customer bills, and this would impact its customer's behaviour in terms of bill payment.

The Commission is of the view that these cost increases are not appropriate for the following reasons. First, given that the cost increases would result from Robusto's actions, it is not appropriate that the risk and consequences of these actions are borne by customers. Second, the Draft Regulatory Determination maximum revenue requirement does not support Robusto's proposals, so, by default, these cost increases are no longer necessary.

As such, the Commission is proposing to remove the step increase proposed by Robusto, as follows:

[66] ESC Act ss 6(b)(iv)(v).

Table 13: Commission adjustments to various operating cost categories

December $2018	2020-21 ($)	2021-22 ($)	2020-21 ($) (50%)	2021-22 ($) (100%)	Total ($)
Robusto's fourth proposal (adjusted)					
Legal fees	10 326	10 326	5 163	10 326	15 489
Public relations and communications	24 782	24 782	12 391	24 782	37 174
Debt recovery mediation dispute resolution	20 652	20 652	10 326	20 652	30 978
Provision for bad and doubtful debts	37 174	24 782	18 587	24 782	43 369
Total	92 934	80 543	46 467	80 543	127 010
Commission adjustments (proportion adopted)					
Legal fees	75%	75%			
Public relations and communications	75%	75%			
Debt recovery mediation dispute resolution	75%	75%			
Provision for bad and doubtful debts	75%	75%			
Commission Draft Regulatory Determination					
Legal fees	7 745	7 745	3 872	7 745	11 617
Public relations and communications	18 587	18 587	9 293	18 587	27 880
Debt recovery mediation dispute resolution	15 489	15 489	7 745	15 489	23 234
Provision for bad and doubtful debts	27 880	18 587	13 940	18 587	32 527
Total	69 701	60 407	34 850	60 407	95 257
Difference (Draft Regulatory Determination *less* Robusto's proposal) (red numbers represent negatives)					
Total	23 234	20 136	11 617	20 136	31 752

6.3.5 Summary and conclusion

The Commission has a number of concerns regarding Robusto's operating cost submission. Through constructive information provision and communication with Robusto, a number of these can likely be rectified. However, until that occurs, the Commission is of the view that it has to adopt a cautious approach towards Robusto's allowable efficient operating cost.

For the Draft Regulatory Determination the Commission proposes:

- removing an assumed amount from Robusto's operating proposals while the issues surrounding the role of finance costs is resolved, and
- deducting a further 25 percent to reflect the adjustment outlined in the table above (for legal fees, public relations and communications, debt recovery, mediation and dispute resolution, and provision for bad and doubtful debts).

The resultant allowable efficient operating cost is shown in Table 14 below.

Table 14: Commission's operating cost Draft Regulatory Determination

December $2018	2020-21	2021-22	2020-21 (50%)	2021-22 (100%)	Total ($)
Commission Draft Regulatory Determination	125 461	116 168	62,730	116 168	178 898

A comparison of Robusto's operating costs as reported in annual returns against those reported in annual returns by similar counterparts is presented in Appendix D.

6.4 Starting asset value, depreciation and capital expenditure

In the example box in Chapter 5, Step 2 described the importance of the asset rollover in calculating maximum allowable revenue, particularly the depreciation and return allowances. The Commission considers that Robusto's proposal does not undertake this process correctly. The outcome of this is to significantly inflate Robusto's maximum allowable revenue. The magnitude of this is considered later on.

The objective of this section is to appropriately structure the asset rollover, based on the information available to the Commission. This section considers the following in that context:

- the appropriate starting asset values and the average asset life, and
- the appropriate level of capital expenditure over the period of this Draft Regulatory Determination.

Thereafter, it provides the asset rollover that the Commission is using in this Draft Regulatory Determination.

6.4.1 Starting asset value and the average asset life

Based on the information available to the Commission, Robusto's final proposal appears to use two starting asset values for differing purposes, each with an associated asset life, comprising:

Table 15: Robusto's starting asset value and asset life assumptions

December $2018	Starting asset value ($)	Asset life (years)
For calculating depreciation	883 000[67]	10 years
For calculating a return	900 000	No asset life

[67] Stated as $862 000, but Robusto's calculations are based on $883 000.

The Commission has some initial observations regarding this.

First, under the methodological approach outlined in Step 2 of the box in Chapter 5, depreciation and the return should be calculated relative to a common starting point. Second, the same asset life assumptions should underpin the calculation of depreciation and return from this common starting point. Finally, Robusto's differing asset life assumption for calculating a return effectively keeps the starting asset value constant through time, which should not be the case.

Given these observations, the Commission considers the following questions relevant in setting up the asset rollover to apply in this Draft Regulatory Determination.

- What is the appropriate total starting asset value to use?
- What is the appropriate average remaining asset life to use?

These questions are linked and can be addressed together. The Commission considers that both the total starting asset value and average remaining asset life should be based upon the independent report produced by BRM Holdich, which was underpinned by an engineering assessment of the assets undertaken by WGA. This is because that report was undertaken in order to obtain an independent assessment of the depreciated replacement cost of Robusto's asset base to use in this determination. The Commission's understanding is that this report reflected the asset stock in December 2018.

To develop a depreciated replacement cost, BRM Holdich had to form a view of the replacement costs of the existing asset stock, the starting lives of the asset stock and the remaining lives of the asset stock. Because of this, a depreciation schedule on a straight line basis can also be calculated that is consistent with the findings of the report. In summary, based on the BRM Holdich report, the depreciated replacement costs of the water retail business asset base, its remaining asset lives and associated depreciation schedules are as follows.

Robusto has stated that it disputes the valuation produced by BRM Holdich. Further, Robusto has stated that it adopted the valuation produced by BRM Holdich for its pricing proposal with a view to resolving the issue.[68] However, as noted above, the independent report produced by BRM Holdich was underpinned by an engineering assessment of the assets undertaken by WGA, which was produced for Robusto.

Table 16: Summary of the key results of the BRM Holdich report

	Depreciated Replacement cost ($)	Depreciation Schedule ($)	Remaining asset life (years)
Water network	716 407	11 940	60.0
Bores	88 964	8 379	10.6
Water tanks	56 580	4 485	12.6
Total	**861 951**	**24 804**	**34.8**

6.4.2 Summary and conclusion

The Draft Regulatory Determination is to adopt the values outlined in Table 16 as and when appropriate, given the purpose for which the BRM Holdich report was produced.

[68] Robusto, *Pricing submission Compass Springs – ESCOSA September 2019*, p. 1.

The Commission notes that the depreciation values and remaining asset life align with the values for each individual asset type as reported in the BRM Holdich report (see Appendix F). When calculating the depreciated replacement cost value for the water distribution network assets, BRM Holdich uses a remaining asset life of either 60 years, or zero years, for each water distribution network asset. If zero years, this implies the asset is fully depreciated and potentially in need of replacement. This would be captured via capital expenditure that would, thereafter, feed into future depreciation schedules. When the remaining asset life is zero years, its depreciated replacement value becomes, by definition, zero (unless revalued subsequently).

In contrast to the values adopted and outlined in Table 16, Robusto's fourth proposal was for a depreciation figure of $88 300 per year (see Table 4, shown earlier). The Commission's understanding is that this is based upon the following provided to Commission staff on 16 April 2019.[69]

The BRM Holditch (sic) report calculates the DRC for the water distribution network assets at $716,406.

A simple pro-rata assessment based upon the costs provided by WGA for replacement implies that roughly 65% of this amount has a remaining lifespan of 60 years. The balance 35% is far shorter.

The following table summarises what we consider to be a balanced view of the depreciation expense that could be applied on a simplistic straight line basis for the first 5 years. (See Table 4, shown earlier)

In Robusto's proposal, it did not consider the use of a value of zero for certain water distribution network assets as appropriate, if those assets are still in operation.[70] Further, Robusto disputes the valuation produced by BRM Holdich; it has stated that it adopted the valuation produced by BRM Holdich for its pricing proposal with a view to resolving the issue. Also, Robusto argues that the NWI Pricing Principles do not preclude using different values. As stated by Robusto in its fourth proposal: [71]

> *As advised previously we disputed the DRC figure determined by the valuation process of $0.862m. We have adopted it with a view to resolving this pricing debate.*
>
> *There is usually a differential between the acquisition cost of a business and the value of its depreciable assets. The NWIPP does not preclude using different figures and we maintain that our approach and our figure of $1.05m is correct with reference to the principles.*
>
> *However, for the purposes of resolving a new pricing model we have adopted a figure of $0.900m in our calculations, being the DRC figure indexed back to the date of acquisition, calculated as described in our previous correspondence.*

Nonetheless, the Commission is of the view that, while Robusto takes the BRM Holdich report as its starting point, the logic thereafter is not internally consistent with the outcome of the BRM Holdich report. This is for the following reasons.

The BRM Holdich depreciated replacement cost value is based on specific asset life assumptions for each individual asset type. If those assumptions are changed, then the depreciated replacement cost value will change, along with the implied depreciation schedules, given the following relationship.

Depreciated replacement cost = (Remaining asset life ÷ Asset life) x Replacement cost

Robusto's approach has not accounted for this fact. Robusto has altered the remaining asset lives relative to those adopted by BRM Holdich, but has maintained the depreciated replacement cost value implied by BRM Holdich using a different set of remaining asset lives.

---

69 Robusto, *Pricing submission Compass Springs – ESCOSA April 2019.*

70 Robusto, *Pricing submission Compass Springs – ESCOSA September 2019*, pp. 1-2.

71 Robusto, *Pricing submission Compass Springs – ESCOSA September 2019*, pp. 1-2.

Based upon the above, Robusto's proposal appears inconsistent with the BRM Holdich report depreciated replacement cost values upon which it is based. Further, if Robusto were to be of the view that 35 percent of the water network assets had a remaining life of zero to five years this would need to be appropriately calculated by asset type. This would then accurately account for the change in the depreciated replacement cost (noting the asset life and replacement costs are fixed), with subsequent implications for the depreciation schedules.

Overall, this has implications for the capital expenditure needed to sustain Robusto, with the results in the following table providing the Draft Regulatory Determination for depreciation of the starting asset value.

In addition, the Commission is of the view that there can be instances where fully depreciated assets (ie assets with a zero theoretical life) are still in operation.

Table 17: Draft Regulatory Determination depreciation schedule for the starting asset value ($Dec 2018)

	2020-21 ($)	2021-22 ($)	2020-21 ($) (50%)	2021-22 ($) (100%)	Total ($)
Robusto's fourth proposal (adjusted)	88 300	88 300	44 150	88 300	132 450
Commission Draft Regulatory Determination	24 804	24 804	12 402	24 804	37 206
Difference (Draft Regulatory Determination *less* Robusto's proposal) (red numbers represent negatives)					
	63 496	63 496	31 748	63 496	95 244

6.5 Capital expenditure included within the period of this Draft Regulatory Determination

As noted above, capital expenditure is an important aspect of sustaining the assets, and accordingly influences the setting of prices.

Robusto's proposal notes what it describes as a 'phased' capital expenditure program for the water retail business amounting to $1.5 million. It is noted that the proposal included information regarding capital investment in the network, but this was not included in Robusto's proposed price rises. The proposal describes proposed capital works, an estimated cost for each, and the maximum allowable revenue requirement Robusto proposed to obtain from undertaking the capital works. However, Robusto did not specifically outline the phasing it was proposing for these capital works.

Overall, the Commission is of the view that it is currently unclear why $1.5 million of capital expenditure is required. This would appear to effectively replace virtually the entire system. This does not align with the outcome of the BRM Holdich report, which suggests there is considerable life left in many of the existing assets.

Also, as the BRM Holdich report lists the asset stock and remaining asset lives, the report can be used to identify what capital expenditure is likely to be required over the coming years. The BRM Holdich report suggests that $557 589 of capital expenditure (December $2018) to replace existing fully depreciated assets is needed, comprising: $390 609 for the water network, $137 724 for the bores and

$29 256 for the water tanks. The Commission also notes that a further $30 977 (December $2018) for additional UV treatment at the water tanks also appears necessary.[72]

The capital expenditure requirement implied by the BRM Holdich report is significantly at odds with Robusto's estimate of $1.5 million. Given this, the Draft Regulatory Determination is that, prior to including any capital expenditure within maximum allowable revenue, further work should be undertaken by Robusto, in consultation with the customer base and the Commission, to identify what capital expenditure is needed to maintain the water supply network in the long term. The intention is that this work can be undertaken in the 18-month period over which the Commission is proposing that the Regulatory Determination apply.

The Commission acknowledges that, in the March 2017 submission, Robusto proposed that some consultation occur with customers in relation to their preferences over the timing of works, and funding options for the required capital expenditure, prior to any works proceeding.[73]

For a detailed discussion of capital investment plans, see Appendix E.

6.6 Asset rollover

Based on the above, the asset rollover used in the calculation of the return elements of the maximum allowable revenue in the Draft Regulatory Determination is as follows. This starts in 2018-19, to reflect the fact that the BRM Holdich report related to the Compass Spring asset stock in December 2018.

Table 18: Asset rollover for the Draft Regulatory Determination

	2018-19	2019-20	2020-21	2021-22
Total				
Starting asset value ($)	861 951	837 147	812 343	787 539
Average asset life (years)	34.8	33.8	32.8	31.8
Depreciation ($)	24 804	24 804	24 804	24 804
Ending asset value ($)	837 147	812 343	787 539	762 735
Of which: Water network				
Starting asset value ($)	716 407	704 467	692 527	680 586
Average asset life (years)	60.0	59.0	58.0	57.0
Depreciation ($)	11 940	11 940	11 940	11 940
Ending asset value ($)	704 467	692 527	680 586	668 646
Of which: Bores				
Starting asset value ($)	88 964	80 585	72 206	63 827
Average asset life (years)	10.6	9.6	8.6	7.6

[72] Robusto provided evidence, supported by SA Health, that a UV treatment system should be installed on the water supply network. Robusto, *Pricing submission Compass Springs – ESCOSA March 2017*, pp. 8-10.

[73] Robusto, *Pricing submission Compass Springs – ESCOSA March 2017*.

	2018-19	2019-20	2020-21	2021-22
Depreciation ($)	8 379	8 379	8 379	8 379
Ending asset value ($)	80 585	72 206	63 827	55 448
Of which: Water tanks				
Starting asset value ($)	56 580	52 095	47 610	43 125
Average asset life (years)	12.6	11.6	10.6	9.6
Depreciation ($)	4 485	4 485	4 485	4 485
Ending asset value ($)	52 095	47 610	43 125	38 640

6.7 Financial structure and rate of return

The steps within the box in Chapter 5 above outlines the relevance of the financial structure and rate of return to the calculation of maximum allowable revenue.[74] The rate of return is relevant to identifying what the overall cash return on the asset stock is, based on efficient costs. Meanwhile, part of the role of the cash return in the overall revenue requirement approach is to recover efficient financing costs. These costs can take the form of loan repayments on the debt, and dividends on the equity, that were used to finance the purchase of the asset stock.

Robusto has proposed a weighted average cost of capital (WACC) of 15 percent for the real rate of return on the assets, but it is the Commission's view that Robusto has not provided sufficient justification for the proposal. Also, Robusto has provided limited information regarding its water retail financing costs. Overall, the Commission notes that, as it progresses to a final determination, it will be necessary for the Commission to obtain additional information on both of these factors.

Notwithstanding this, the two key questions remain:

- What are the efficient financing costs associated with the water retail business?
- What real rate of return should be adopted for the water retail business?

6.8 Efficient financing costs

The Commission considers that, for the purposes of the Draft Regulatory Determination, a proxy for the financing costs attributable to the water retail business is $84 514 per year. The Commission notes this is based on the limited information available to it at this time. Whether this represents an efficient cost, requires further analysis, supported by additional information from Robusto. This will be undertaken as this process progresses to a final determination.

Robusto's submission states that debt finance was used for the acquisition, with the designated portion of the purchase price for the water retail business being $1.05 million. In addition, Robusto explains that when the business was initially acquired, the debt funding arrangement was 14 percent per annum for a period of six months. Thereafter, it was refinanced by Robusto at a variable interest rate of 5.5 percent per annum, secured by assets including those owned by Robusto's Managing Director.

[74] ESC Act s 25(4)(d).

To the Commission's knowledge, other than the potential financing cost information discussed on operating costs, the above represents at this time, the only information Robusto has provided regarding the financing structure and costs of the water retail business. Based on this, in developing this Draft Regulatory Determination, the Commission has assumed the following:

- Robusto's purchase of the assets described was entirely debt financed via a consolidated loan
- the designated portion of the loan attributable to the water retail business is $1.05 million
- the interest rate on that loan in 2017 is a variable rate of 5.5 percent per annum, and
- financing costs (covering both interest and principal) are assumed to be generally consistent with those reported in Robusto's annual returns.

What is not known, for example, is:

- What the term of the debt financing is?
- Whether loan repayments cover interest and principal?
- Whether there has been further refinancing, noting the decline in interest rates since 2017?
- What proportion of the debt financing has been paid off?

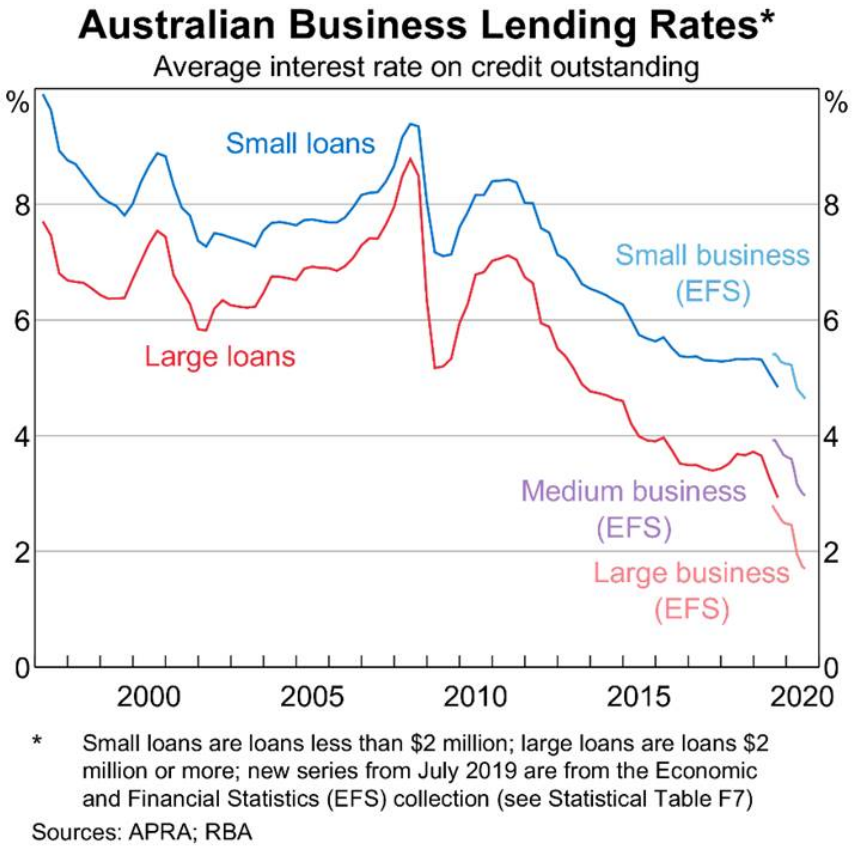
Against this background, the Commission has estimated allowable financing costs for the purposes of this Draft Regulatory Determination as follows:

Table 18: Commission's approach to estimating allowable financing costs

Description of calculation
The term of the loan was calculated by the Commission, in part using information provided by Robusto, to be in the region of 15 years, with an interest rate of 5.5%, with a loan value of $861 951. This represents the allowable starting asset value for the purposes of the Draft Regulatory Determination. If this were completely debt financed, it would result in a repayment of $84 514 per year.

The Commission notes that an interest rate of 5.5 percent is in line with trends in small business lending rates over recent years, as published by the Reserve Bank of Australia (RBA) (see Chart 2).

Chart 2: Indicative lending rates for business, according to data published by the RBA[75]



6.9 Rate of return

The Commission considers that, for the purposes of developing this Draft Regulatory Determination, it will adopt a 5.5 percent rate of return (post-tax, real).

This is informed by applying the WACC methodology, in the context of work undertaken for the Commission by KPMG.[76] That work relates to the extent to which a size premium might exist for small scale networks such as Robusto and, if so, what might be the implications for the WACC. The Commission acknowledges that such work is in its early stages. It also notes there is limited regulatory precedent for developing an efficient rate of return for entities of Robusto's size and scale.

The reasons for adopting this approach is that the Commission considers the evidence provided by Robusto is not compelling, as there appear to be methodological errors, and there is limited substantive evidence put forward by Robusto and its consultants. Also, the proposals are based upon Robusto's capital structure, rather than a benchmark efficient capital structure (the latter of which is common regulatory practice in Australia).[77]

---

[75] RBA Statistical Tables F5 and F7, available at https://www.rba.gov.au/statistics/; chart of data published at https://www.rba.gov.au/chart-pack/interest-rates.html. For background on the data, see Garner, *Insights from new economic and financial statistics collection*, Bulletin – September 2020, Reserve Bank of Australia, pp. 48-57, available at https://www.rba.gov.au/publications/bulletin/2020/sep/insights-from-the-new-economic-and-financial-statistics-collection.html.

[76] KPMG, *Applying a size premium to ESCOSA's rate of return framework for Compass Springs*, a report prepared for ESCOSA, June 2020, pp. 1-38.

[77] Australian Energy Regulator (AER), *Rate of return instrument – explanatory statement*, 2018, p. 29.

The remainder of this section considers the following:

- Robusto's proposal
- the Commission's response to Robusto's proposal, and
- the Commission's approach and Draft Regulatory Determination.

6.9.1 Robusto's proposal

In its original submission in March 2017, the argument put forward by Robusto for a 15 percent rate of return on the water retail business assets was:[78]

> *Current market interest rates for debt secured by this kind of business asset when demonstrable positive net cashflow is available in the range between 8.00% and 14.00% per annum. Bank debt remains extremely difficult to source for this kind of "specialized asset" in the current economic environment.*
>
> *We have adopted the lower figure of this range, being 8.00% per annum in our analysis, but a higher rate could very easily be justified.*
>
> *We have adopted a Risk Premium of 7.00% per annum which is in itself at the low end sought by equity investors that consider investing in these specialized assets.*
>
> *This results in our adopted Weighted Average Cost of Capital of 15% per annum.*

The pre or post-tax basis and nominal or real basis of this WAAC became clearer in the report provided by Robusto in September 2019, undertaken on its behalf by Ernst and Young, entitled *Economic advice in respect of Compass Springs drinking water pricing proposal*.[79]

Ernst and Young suggested that the return on assets for Compass Spring's drinking water business would likely be in the order of 10-12 percent on a post-tax nominal basis.[80] Ernst and Young stated this was estimated using a top-down assessment, based on its experience in undertaking valuations for similar entities.[81] Further, Ernst and Young noted it was an indicative estimate of the likely range of the appropriate return on assets and was not determined using a full assessment of the likely rate of return.[82] In its September 2019 proposal, Robusto indicated that the Ernst and Young report supported its 15 percent pre-tax nominal WACC submission, once adjusted for corporate tax.[83]

In coming to its opinion Ernst and Young cited four factors (discussed below), concluding that:[84]

> *As a result of the factors described above, it [Compass Springs] faces a higher cost of debt than SA Water which reflects the greater risk that providers of debt finance would assume with respect to Compass Springs's drinking water operations. We understand ESCOSA's current approach to calculating SA Water's cost of debt assumes a benchmark efficient entity with a BBB credit rating, that issues debt with a maturity of 10 years, and that 10% of its debt is refinanced every year. This approach would not be appropriate for Compass Springs's drinking water operations which faces higher debt financing costs given the nature of its operations and customer base (e.g. Compass Springs does not have a credit rating for its Compass Springs water business and would be viewed*

---

78 Robusto, *Pricing submission Compass Springs – ESCOSA March 2017*, p. 6.
79 Ernst and Young, *Economic advice in respect of Compass Springs drinking water pricing proposal,* a report prepared for Compass Springs, September 2019, pp. 1-2.
80 Ernst and Young, *Economic advice in respect of Compass Springs drinking water pricing proposal,* pp. 1-2.
81 Ernst and Young, *Economic advice in respect of Compass Springs drinking water pricing proposal,* pp. 1-2.
82 Ernst and Young, *Economic advice in respect of Compass Springs drinking water pricing proposal,* pp. 1-2.
83 Robusto, *Pricing submission Compass Springs – ESCOSA September 2019*, p. 1.
84 Ernst and Young, *Economic advice in respect of Compass Springs drinking water pricing proposal,* p. 2.

as significantly more risky than BBB). To illustrate the additional costs and risks that Compass Springs faces in the market for financing:

i. No major Australian bank was willing to provide debt financing for Robusto's acquisition of Compass Springs in 2016 given its size, regional location and perceived high degree of risk. This is despite Robusto being a major client of these banks and having a good credit history

ii. To be able to fund the acquisition of Compass Springs, Robusto resorted to debt financing from Turner Securities at a per annum interest rate of 14%, before obtaining finance from a Credit Union after servicing the Turner Securities loan for six months.

6.9.2 Commission's response to Robusto's proposal

The Commission is of the view that the reasoning put forward in both Robusto's original proposal in 2017 and the Ernst and Young report in September 2019, (1) does not support a WACC of 15 percent (pre-tax, nominal), and (2) does not demonstrate an appropriate application of the WACC approach. The Commission does, however, acknowledge that if the WACC applied for SA Water was used as starting point to develop a WACC for small scale water network operator, it may need adjusting if there was evidence to suggest this.

Starting with the Ernst and Young report, the Commission notes the report focuses upon the cost of debt attributable to the water retail business, but couches this as an overall opinion on the rate of return. In the absence of any discussion regarding equity, Ernst and Young's opinion is that the rate of return be in the order of 10-12 percent post tax, nominal would actually appear to be an opinion on the cost of debt, not the WACC.[85]

Overall, the Commission does not consider that the Ernst and Young report provides evidence which supports Robusto's position. Rather, it provides a series of assertions sometimes supported by qualitative examples. No quantitative analysis or evidence is provided. Ernst and Young notes that the opinion provided is not based on a full assessment of the water retail business, but rather is a top-down assessment based upon experience. Ernst and Young also notes that it has not verified the accuracy of the information provided to it when forming its opinion. Specifically, with regard to the factors adopted by Ernst and Young to support its opinion, the Commission has the following observations.

Table 19: Ernst and Young factors and the Commission's response[86]

Ernst and Young factors	Commission response
Factor 1 Robusto face more uncertainty compared to SA Water due to the nature of its drinking water operations and its customer base. The example provided by Ernst and Young was that Robusto does not have long-term contracts for the supply of water in the same way that SA Water provides water and sewerage services to the majority of South Australia and has legislative requirements to do so under the *South Australian Water Corporation Act 1994*. In other words, there is less certainty that Robusto will have the opportunity to recover the costs of its investments over the life of the asset.	The Commission is not aware that SA Water has long-term contracts with the majority of its customers, being that the majority are residential users. Rather, SA Water has an obligation to supply all its customer base, as does Robusto (clause 5.1 of Robusto's licence); both are monopoly suppliers of retail water services. Further, the general methodology of the revenue requirement approach being applied to Robusto is equivalent to that of SA Water. Both provide a maximum allowable revenue based upon efficient costs This process is independent of contract terms or the obligation to supply. It provides a high degree of

[85] Ernst and Young, *Economic advice in respect of Compass Springs drinking water pricing proposal*, pp.1-2.
[86] Ernst and Young, *Economic advice in respect of Compass Springs drinking water pricing proposal*, pp.1-2.

Ernst and Young factors	Commission response
	certainty regarding revenue streams over the applicable regulatory period (noting issues regarding bad debt are for the operator to manage). As a regulated business and given no legislative changes, Robusto could have a maximum allowable revenue periodically set in a manner that will eventually span the life of the water retail business assets. This would appear to provide a high level of certainty.
Factor 2 Robusto is a very small business compared to SA Water with less than 170 customers, which not only brings risks as a small business (for example, possibly making it susceptible to demand shocks), but also increases the risk of competition through alternative means (as opposed to alternative service providers). The example provided being the significant threat of competition from customers relying on rainwater tanks.	There has not been sufficient evidence provided to demonstrate that substitution to rainwater tanks represents a competitive threat to Robusto's operation. Further, the extent to which it might become a competitive threat is, in part, down to Robusto's own actions in terms of its pricing and operation of the water retail business, including its relationship with its customer base. Given this, this is largely within Robusto's control. There could be a risk of greater variability in demand from a small customer base (for example, more exposure to demand shocks). This could in principle then make it more difficult to obtain finance (if lenders perceive the income of the water provider to be more variable). However, no empirical evidence was provided to support this argument.
Factor 3 The small and local nature of Robusto' customer base means that it is particularly susceptible to the non-payment of bills. Ernst and Young noted that, as the Commission is aware, Robusto has been in ongoing disputes with 15-20 percent of its customers about the 15 percent premium it charges on SA Water's consumption rates, who have chosen to underpay or not pay their bills as a result. While Energy and Water Ombudsman SA recently determined that the correct consumption rates have been applied, Robusto has already incurred significant administrative costs and will continue to do so to collect outstanding debts.	It is not clear why location and size of a customer base, in and of itself, means that customers are less or more likely to pay their bills. Ernst and Young's example relates to a dispute about Robusto's charging, rather than anything innate about the small or local nature of a customer base. In relation to the Energy and Water Ombudsman, that decision reflected the legacy nature of the supply contracts which retain the previous, SA Water-linked, pricing structures.
Factor 4 Robusto has greater risks to the reliability of water supply of it outside the control due to frequent and regular power outages. The power outages result in customers losing water supply, as the storage tanks have a capacity of just 150 kilolitres. Robusto's supply of drinking water has been disrupted by two catastrophic power failures over the past three years, each resulting in lost water supply for over 24 hours as	The Commission considers this a risk that Robusto, in collaboration with its customer base, can seek to manage. For example, nothing precludes Robusto from seeking to ascertain whether the customer base is willing to pay for contingency back-up generators to mitigate this risk. If they are not willing to pay, this may simply

Ernst and Young factors	Commission response
a function of the unique location and nature of the network. Ernst and Young noted that, when South Australia suffered a state-wide blackout in September 2016 for 24 hours, the disruptions to power supply were significantly longer at Mount Compass.	indicate that they are prepared to accept a level and frequency of disruption.

Finally, in the context of the Ernst and Young report, there are many options other than the major Australian banks from which Robusto can seek to access financing. The willingness, or otherwise, of any particular institution to provide Robusto with financing can depend on various factors other than the water retail business acquisition, such as, for example, Robusto's other commitments, how these are secured, and the risks associated with them. In this context, the Commission notes that Robusto has actually achieved debt financing at a variable rate of 5.5 percent, based upon providing the appropriate level of security required by the lender. This interest rate is not out of line with indicative small business lending rates in Australia reported by the RBA.

The Commission is of the view that Robusto's original proposal does not use the WACC methodology correctly and, as a consequence, a 15 percent pre-tax nominal WACC is not supported.

Standard practice is to calculate WACC as follows:

WACC = (proportion of debt) x (cost of debt) + (proportion of equity) x (cost of equity)

However, Robusto's 15 percent estimate is based on a cost of debt assumption of 8 percent, with the risk premium of 7 percent put forward by Robusto that relates to the cost of equity (i.e. as an equity risk premium). Robusto appears to add these together to obtain a 15 percent WACC (which Robusto defines in its September 2019 submission as pre-tax nominal). Adding these components in that manner should not be done as one relates to debt and one to equity. If the WACC was calculated using the above WACC formula and based upon Robusto's actual debt-equity structure, the equity risk premium is not relevant because there is no equity.

Overall, it is not possible to take Robusto's approach any further, but it is also not possible to adopt Robusto's proposed WACC for the reasons outlined above. Given this, for the purposes of this Draft Regulatory Determination the Commission is adopting the methodology outlined below. For avoidance of doubt, this does not mean the Commission will adopt this approach, or the assumptions within it, for the Final Regulatory Determination or thereafter for small scale network providers in general. Rather, it represents an interim measure that adjusts a standard methodological approach.

6.9.3 Commission's approach

The Commission has attempted to start the process of answering the following questions which are relevant to developing a WACC framework for small scale network providers.

- Is there any evidence that a size premium applies?
- If so what is an appropriate rate of return?

This represents the Commission's initial attempt to develop a framework in which to assess the WACC that might apply to small scale network providers and further work is required in this area. The Commission also notes there is limited regulatory precedence to guide this work. Further, at the time this work was started, the Commission was required to adopt NWI pricing principles. In the context of

applying the WACC approach, this required the use of the Capital Asset Pricing Model (CAPM). The Commission notes that this is now not the case.[87]

The Commission has engaged KPMG to assist it in this work. In June 2020 KPMG produced the report: *Applying a size premium to ESCOSA's rate of return framework for Compass Springs*.[88] This places the questions above in the context of assessing what WACC might apply to a small scale network, such as Robusto, in the context of the WACC framework with respect to SA Water. That is, a real post tax vanilla WACC using the Sharp-Linter CAPM model.

6.9.3.1 Is there any evidence that a size premium applies?

KPMG suggested that, while the evidence of a size premium was not conclusive and did not relate to businesses as small as Robusto, there was, on balance, a case to support the application of a size premium to a business of the scale and size of Robusto.[89] KPMG noted that the estimation of a WACC for small firms such as Robusto is a challenging exercise with limited regulatory precedent.[90] As such, KPMG noted that the Commission would need to exercise judgement when applying such a WACC.[91]

6.9.3.2 What is an appropriate rate of return?

In order to develop a picture of what the appropriate return for a business such as Robusto might be, KPMG took the WACC framework and assumptions used for SA Water and adjusted these to reflect two things:

- a small size premium, and
- the ability to obtain debt finance.

These were applied as follows in KPMG's report, using the SA Water WACC framework as the starting point.

---

87 This Pricing Order issued by the Treasurer took effect on 1 July 2020, available at https://www.treasury.sa.gov.au/__data/assets/pdf_file/0003/215139/Second-Pricing-Order-for-the-Regulatory-Period-1-July-2020-to-30-June-2024.pdf. By comparison, see Pricing Order issued in 2013, available at https://www.treasury.sa.gov.au/__data/assets/pdf_file/0015/36222/initial-pricing-order-for-regulatory-period-1july2013-30june2016.pdf. The initial Pricing Order from 2013 required that the Commission adopt NWI Pricing Principles (of which the WACC and CAPM approaches were set out) when making any price determination including for minor and intermediate retailers. However, the Pricing Order (which took effect on 1 July 2020) provides greater flexibility when selecting a price setting methodology for minor and intermediate retailers, and in that regard a price determination for minor and intermediate retailers does not need to adopt the WACC and CAPM approach set out in NWI Pricing Principles.

88 KPMG, *Applying a size premium to ESCOSA's rate of return framework for Compass Springs*, pp. 1-38.

89 KPMG, *Applying a size premium to ESCOSA's rate of return framework for Compass Springs*, pp. 4-5.

90 KPMG, *Applying a size premium to ESCOSA's rate of return framework for Compass Springs*, pp. 4-5.

91 KPMG, *Applying a size premium to ESCOSA's rate of return framework for Compass Springs*, pp. 4-5.

- **Step 1: Identify an assumption for the small scale premium and how to apply it:** KPMG assumed the size premium to be 6.46 percent[92] based upon the research undertaken in developing the June 2020 report. It applied this adjustment to the cost of equity.[93]
- **Step 2: Identify the adjusted WACC for an efficient debt-equity structure:** This provides a crude proxy for the WACC, if the efficient debt-equity structure used for SA Water also applied to small scale businesses. This was calculated by applying the size premium adjustment, with all other SA Water assumptions held constant.
- **Step 3: Identify the maximum adjusted WACC with debt constrained finance:** This provides a crude proxy for the WACC, if small-scale businesses access to debt markets is constrained and they can only finance via equity. In addition to applying the size premium adjustment, this requires two additional adjustments. These are to un-lever SA Water's asset beta[94] and to amend the capital structure to only include equity.

The outcome of this exercise is provided in Table 20 below.

Table 20: Estimates of Robusto WACC

	SA Water Final Determination, June 2020	KPMG Efficient capital structure	KPMG Debt constrained	Robusto
Risk free interest rate (%)	0.91	0.91	0.91	
Unlevered asset beta			0.33[95]	
Equity beta	0.67	0.67		
Equity market risk premium (%)	6.00	6.00	6.00	

92 In assuming a 6.46 percent size premium, KPMG placed most weight on the Winn et al 2018 study: *The Size Premium: Australian Evidence, Research Paper for Chartered Accountants Australia and New Zealand. Macquarie University, Applied Finance Centre.* This study concluded that smaller firms have historically exhibited higher return performance than larger ones. The premium being indicative of the risks and difficulties of investing in smaller firms. Over the 1991 to 2000 period the premium range was 3.96 percent to 8.96 percent per year, or an average of 6.46 percent. KPMG's reasoning for preferring this study is that it provides a relatively detailed and recent analysis of micro-cap businesses. Micro-cap businesses typically have a market capitalisation of US$300 million to US$50 million, with nano-cap businesses being less than $50 million. KPMG also noted that the Winn et al results were broadly consistent with its historical annual Valuation Practices Surveys in 2013, 2015 and 2017. KPMG, *Applying a size premium to ESCOSA's rate of return framework for Compass Springs*, pp. 1-38.

93 KPMG considered that a business of the scale and size of Robusto would be significantly constrained in its ability to access capital markets and is not directly comparable to large utilities, so it was not possible to rely on capital market observations to determine an uplift to the WACC. So an alternative approach is to apply a size premium to the cost of equity. KPMG, *Applying a size premium to ESCOSA's rate of return framework for Compass Springs*, pp. 4-5.

94 This process removes the impact debt has on the asset beta in the benchmark capital structure. This is necessary because the asset beta reflects the benchmark capital structure adopted, which reflects the level of financial gearing or debt adopted. So if a different capital structure is to be adopted relative to the benchmark capital structure, the impact of the debt in benchmark capital structure on the asset beta has to be removed in order to allow comparison.

95 An unlevered asset beta will be below the asset beta if there is debt in the capital structure. This is because there is an obligation to service debt, which commits funds. By contrast, equity does not have such a commitment because equity returns are discretionary.

Small size premium (%)		6.46	6.46	
Cost of equity (post-tax, nominal)[96] (%)	*4.93*	*11.39*	*9.33*	
Cost of debt (pre-tax, nominal)[97] (%)	*5.21*	*5.21*	*5.21*	*5.50*
Proportion of debt (%)	60	60	0	100
Proportion of equity (%)	40	40	100	0
WACC (post-tax, nominal) (%)	5.10	7.69	9.33	5.50
Long-term inflation expectation (%)	2.07	2.07	2.07	2.07
WACC (post-tax, real) (%)	2.96	5.50	7.11	3.36

6.9.3.3 Summary and conclusion

If the Commission were to apply the WACC framework to Robusto based upon its actual capital structure and the rationale it has provided, the Commission would adopt a 5.5 percent pre-tax nominal interest rate, to a solely debt-financed capital structure. This represents the actual interest rate Robusto stated it pays (in its March 2017 pricing proposal), rather than the 8 percent interest rate (pre-tax, nominal) proposed by Robusto.

The Commission's understanding of Robusto's original proposal is that the reasoning for adopting an 8 percent interest rate relates to providing Robusto with the ability to secure the retail water business loan allocation, solely on the Compass Spring water business related assets. In doing so, Robusto would appear to be seeking to transfer to the customer base the risk of the capital structure it has chosen to adopt. In the absence of further information to explain why this would be in the interests of customers, the Commission is unclear why this is appropriate.

This would lead to the WACC for Robusto being 3.36 percent on a post-tax real basis. However, the Commission has had regard for both the potential for a small size premium to exist, but also the fact that Robusto has been capable of accessing debt financing and does not seem unduly constrained in this regard. Given this, for the purposes of this draft decision the Commission is adopting a post-tax real WACC of 5.50 percent. While this reflects an efficient WACC based on the assumptions adopted, the Commission does acknowledge there is benefit in undertaking further work in this area.

6.9.4 Rate of return

For the purposes of the Draft Regulatory Determination, the Commission is including a return on assets of $64 649 (in December 2018 dollars). The return is derived as follows from previous elements discussed in this chapter.

[96] For SA Water the cost of equity is calculated as follows: Risk free interest rate + (Equity beta x Equity market risk premium). The small scale premium is added to this when it is applicable.

[97] Interest expenses on debt are tax deductable. A pre-tax cost of debt refers to a cost of debt that does not adjust for this. A separate tax allowance is included the revenue requirement to cover tax outlays based on efficient costs.

Table 21: Draft Regulatory Determination return

	2020-21	2021-22	2020-21 (50%)	2021-22 (100%)	Total
Robusto's fourth proposal (adjusted)					
WACC (pre-tax, nominal) (%)	15.00				
Asset value ($)	900 000	900 000	900 000	900 000	
Return ($)	135 000	135 000	67 500	135 000	202 500
Commission Draft Regulatory Determination					
WACC (post-tax real) (%)	5.50				
Average asset value ($)	799 941	775 137	799 941	775 137	
Return ($)	44 009	42 644	22 004	42 644	64 649
Difference (Draft Regulatory Determination less Robusto proposal) (red numbers represent negatives)					
Return ($)	90 991	92 356	45 496	92 356	137 851

Overall, Robusto's approach to calculating both the return and depreciation raises various methodological concerns.

To summarise, these include:

- using asset lives that do not reflect the remaining life of the asset stock
- adopting two differing starting asset values to separately calculate the depreciation and return
- maintaining a constant asset value through time when deriving a return, and,
- adopting an approach to the WACC that is inconsistent with the underlying WACC methodology.

The Commission considers that the overall impact of this is to inflate the actual total cash return on assets (the return on and of capital) proposed by Robusto, relative to that that would be implied by the rate of return proposed by Robusto. This is because:

- the adoption of asset lives significantly below the estimated remaining economic life front loads depreciation, and
- other things equal, maintaining the starting asset value through time results in higher returns than would be case if the starting asset value were rolled over in the standard manner.

To illustrate this, if the standard asset rollover approach had been adopted by Robusto, along with the results from the BRM Holdich report of a starting asset value and remaining asset life perspective, then

to get the overall return on and of capital proposed by Robusto, its WACC would have to be in the region of 25.3 percent[98](pre-tax, nominal), rather than 15.0 percent.

6.9.5 Claimed losses

For the purposes of this Draft Regulatory Determination, the Commission is excluding what Robusto has claimed as "amortised losses" in its pricing proposals.

Robusto is claiming that customers should provide compensation to it, as it has not introduced a price change for financial years 1 July 2016 to 31 December 2020. However, as explained earlier, under the 2013 Regulatory Determination in place for minor and intermediate water retailers, Robusto has responsibility for setting its prices, subject to meeting the NWI Pricing Principles and the other requirements of that determination.

The Commission maintains that Robusto's proposals did not comply with NWI Pricing Principles and the 2013 Price Determination. Nor did Robusto seek to introduce any interim price increases that would comply. In that regard, it is, for the most part, Robusto's decision to propose higher prices than needed which explains the length of period between the first and final pricing proposal and this regulatory determination process.

6.9.6 Tax allowance

The tax allowance of $2 584 (December $2018) in this Draft Regulatory Determination follows from a number of elements considered previously as follows:

Table 22: Tax allowance

	2020-21 ($)	2021-22 ($)	2020-21 ($) (50%)	2021-22 ($) (100%)	Total ($)
Robusto's fourth proposal (adjusted)					
Tax allowance	0	0	0	0	0
Commission Draft Regulatory Determination					
Revenue requirement before tax (nominal)	194 274	188 206	97 137	188 206	285 343
Less: Operating costs (nominal)	125 461	119 072	62 730	119 072	181 802
Less: Depreciation (nominal)	24 804	25 424	12 402	25 424	37 862
Less: Interest (nominal)	39 647	37 116	19 824	37 116	56 940
Taxable income (nominal)	*4 362*	*6 594*	*2 181*	*6 594*	***8 775***
Taxable income (December $2018)	*4 362*	*6 433*	*2 181*	*6 433*	***8 614***
Tax rate	30%	30%			
Tax allowance (December $2018)	1 308	1 930	654	1 930	2 584

[98] This figure is derived by back solving for the WACC to obtain the aggregate of the depreciation and return proposed by Robusto. As the depreciation is fixed, the WACC is calculated so that the return plus depreciation match that in Robusto's final (adjusted fourth) proposal.

	2020-21 ($)	2021-22 ($)	2020-21 ($) (50%)	2021-22 ($) (100%)	Total ($)
Difference (Draft Regulatory Determination less Robusto proposal)					
Tax allowance (December $2018)	1 308	1 930	654	1 930	**2 584**

The Commission notes that Robusto did not include a tax allowance in its proposals.

6.9.7 Summary

The Draft Regulatory Determination is summarised in the table below. The Commission considers that, at this stage in the process, its position appropriately balances its primary objective of protecting the long-term interests of consumers with respect to price, quality and reliability of essential services, with the other factors it has to have regard to under the ESC Act and the WI Act.

Of particular relevance is that, this Draft Regulatory Determination, if implemented, may result in a negative cash position. This may be taken as suggesting that the determination has not had regard to facilitating the maintenance of the financial viability of the water retail business and the incentive to invest within the system over the long term (see section 6(b)(vi) of the ESC Act - noting however that the issue of financial viability refers to the regulated industry as a whole, rather than the particular participants in that industry from time-to-time).

This is not the case. The Commission considers that, given the information available to it, Robusto's loan structure represents an inefficient cost in the context of long-life regulated assets. This is manifesting itself through the negative cash flow. The Commission is of the view that these costs should not be borne by Robusto's customers in the absence of information and evidence that establishes it to be an efficient cost.

The negative cash flow position occurs because the inputs into the revenue requirement analysis result in the cash inflow generated by the overall maximum allowable return on and of capital (return and depreciation) being less than the cash outflow of the loan payments. This is caused by the fact that the estimated loan term associated with the purchase of the water retail business assets is 15 years (as outlined earlier). This is much shorter than their remaining asset life, which is in the region of 30 plus years. Consequently, loan costs are not spread over the remaining life of the water retail business assets, so do not represent efficient financing (in the absence of evidence to suggest the contrary).

If maximum allowable revenues were adjusted upwards to offset the negative cash flow in order to manage a loan term of 15 years, near-term prices would increase. This would result in inefficient pricing and existing customers bearing a greater burden of the asset costs than future generations.

Such inefficient pricing does not support financial viability and investment incentives over the long term, or intergenerational equity (and customers would not benefit from efficiency). As highlighted earlier, under the ESC Act the Commission's primary statutory objective is the *'… protection of the **long term** interests of South Australian consumers with respect to the price, quality and reliability of essential services'*. (emphasis added)

By contrast, the Commission estimates that if the loan term was set to 30 years, the outcome would be cash flow positive. This would largely negate financial viability concerns, with loan payments more evenly spread across the present and future customer base. Further, pricing would be efficient, thereby providing the appropriate incentive for long-term investment.[99]

[99] ESC Act, s 25(4)(f).

It is noted that the Commission's proposed revenue cap has been determined based on the best available evidence at this stage of the process. The revenue cap for the final decision, however, may end up being higher, lower or the same as the revenue cap proposed in the draft decision, depending on any new information and evidence available to the Commission.

Table 23: Summary of Draft Regulatory Determination (December 2018 dollars)

	Start April 2021 to end September 2022
Customer numbers	174
Maximum allowable revenue generated ($)	283 337
Implied average yearly bill ($)	1 086
Operating position	
Revenue ($)	283 337
Operating costs ($)	178 898
Profit before interest, tax, depreciation and amortisation (PBITDA) ($)	*104 439*
Depreciation ($)	37 206
Profit before interest and tax (PBIT) ($)	*67 233*
Loan interest ($)	56 035
Tax ($)	2 584
Profit after interest and tax ($)	*8 641*
Cash position	
Revenue ($)	283 337
Operating costs ($)	178 898
Loan interest ($)	56 035
Loan principal ($)	68 675
Tax ($)	2 584
Net cash position ($)	*22 855*

7 Next steps

The Commission seeks stakeholder views on this Draft Regulatory Determination by Friday 15 January 2021. The inside cover of this report explains how to make a submission.

The Commission would also be pleased to meet informally with stakeholders, either individually or with representative organisations, to discuss the draft decision. If you or your organisation wish to meet with Commission staff, please use the contact details on the inside cover of this draft report. The Commission aims to publish a Final Regulatory Determination in March 2021.

Appendix A: NWI Pricing Principles

The text below is from the NWI Pricing Principles; those principles can be found here: https://www.agriculture.gov.au/sites/default/files/sitecollectiondocuments/water/national-water-initiative-pricing-principles.pdf.

Relevant principles for the recovery of capital expenditure

Water utilities are characterised by having asset bases reflecting large amounts of capital expenditure. Two methods for the recovery of capital expenditure are recommended:

a) the annuity approach; and
b) the Regulated Asset Base (RAB) or building blocks approach

The annuity approach forecasts asset replacement and growth costs over a fixed period and converts these to a future annualised charge. The annuity approach is commonly applied to provide the cash requirements needed to renew non-financial assets over a medium to long-term time period.

The RAB approach includes an allowance for a return of capital (depreciation) and a return on capital. Under the RAB approach the 'building blocks' equations are as follows:

Revenue requirement =
Benchmark operating expenditure (including operations, maintenance, administration costs)
+
Return on capital (RAB) + Return of capital (RAB) or depreciation.

Principle 1: Cost recovery for new capital expenditure

For new or replacement assets, charges will be set to achieve full cost recovery of capital expenditures (net of transparent deductions/offsets for contributed assets and developer charges – refer to principle 6 – and transparent community service obligations)[i], [ii] through either:

a) a return of capital (depreciation of the RAB) and return on capital (generally calculated as rate of return on the depreciated RAB); or

b) a renewals annuity[iii] and a return on capital (calculated as a rate of return on an undepreciated asset base (ORC)).

Where jurisdictions have drawn a 'line in the sand', this principle would apply only to new investment decisions made after the date the line in the sand was drawn (the legacy date). For investment decisions made prior to the legacy date, see principles 3 and 4.

The rate of return should be consistent with the Weighted Average Cost of Capital (WACC[iv]) with the cost of equity derived from the Capital Asset Pricing Model (CAPM).

Notes

i. Charges may be set to achieve up to full cost recovery of capital expenditures in the rural and regional sector where it is demonstrated that it is not practicable to move towards upper bound pricing as per the terms identified in clause 66 (v) of the NWI.
ii. See also Principles 4 and 5.
iii. To ensure revenue outcomes generally consistent with option (a), the renewals annuity should be structured as a sinking fund to include a provision on a forward-looking basis for the cost of replacing the relevant asset and/or asset components. In calculating the undepreciated asset base, the ORC should not include the renewals reserve.

iv. The WACC return sought should be tuned to the RAB valuation methodology adopted. The WACC used should be consistent with the form of asset valuation methodology used (e.g. a nominal WACC applies to a historical cost valuation, and a real WACC applies to a current cost valuation). The use of replacement cost valuations can give rise to capital gains and losses measured against the Consumer Price Index (CPI). Where an asset value is used to determine revenue requirements, a systematic escalation in the value of assets above the increase in the CPI will give rise to a capital gain in real terms, all other things being equal. Where an asset on revaluation is subject to a systematic decrement in real terms, a capital loss will result. Where replacement cost valuations methods are used, the WACC will need to be adjusted to cater for systematic capital gains or losses.

Principle 2: Valuation of new assets

New and replacement assets[i] should be initially valued at efficient actual cost[ii] .

Notes

i. A new asset refers to any investment (be it on a new asset or a replacement asset) that occurs after the legacy date.
ii. To avoid circularity in price setting the amount included in the RAB should not be based on the net present value of cash flows.

Principle 3: Valuation of legacy assets

Legacy assets[i] that are to be retained should be valued at Depreciated Replacement Cost (DRC); Depreciated Optimised Replacement Cost (DORC); Optimised Replacement Cost (ORC), indexed actual cost, Optimised Deprival Value (ODV)[ii] or using another recognised valuation method.

Notes

i. Legacy assets are those which existed as at the legacy date (see iii for a definition of the legacy date).
ii. This is consistent with the findings of the expert group on asset valuation methods which stated that the deprival value approach to asset valuation should be adopted100.
iii. The legacy date equates to the date where a line in the sand has been drawn. Where jurisdictions have not drawn a line in the sand, the legacy date will be no later than 1 January 2007 and may be in accordance with earlier dates as determined by governments or economic regulators.

Principle 5: Rolling forward asset values after the legacy date

The RAB comprising prudent new investments and legacy investments should be rolled forward each year in accordance with the following formula, which can be expressed in nominal or real terms[i] :

[100] The deprival value is the value of future economic benefits that would be foregone if the entity is deprived of an asset. If the asset to be lost is to be replaced, it can be valued at its market value, replacement cost or reproduction cost, depending on the circumstances. If the asset is not to be replaced, then it should be valued at its economic value, which is the greater of either the net present value of the income expected to be earned from the asset, or the fair market value. The optimised deprival value is the lesser of the DORC and the economic value of the asset.

RAB t = (RABt-1 + Prudent Capital Expenditure t – Depreciation t – Disposal t (discarded assets)). (Where t = the year under consideration).

Where assets are optimised[ii], they should not be subject to further optimisation unless there are relevant changes in market circumstances.

Where DRC or DORC is used as a basis for asset values, the RAB comprising new investments and legacy investments should be re-valued through an independent appraisal on a rolling basis in accordance with Accounting Policy Standards.

Where a renewals annuity is used, asset values should not be depreciated.

Notes

i. When applicable, CPI or other relevant indexation factor may be used.
ii. The RAB should be adjusted for 'unplanned' excess capacity through optimisation (that is, delivery of an equivalent service that reflects least cost planning reflecting prudent engineering and technological advancements), where 'unplanned' excess capacity is capacity which is not the result of a planned level of utilisation.

Principle 6: Contributed assets

New contributed assets[i,ii,iii] (i.e. grants/gifts from governments and contributions from customers (e.g. developer charges)) should be excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers[iv]. If a renewals annuity is used, it should include provision for replacement of contributed assets.

Notes

i. For contributed assets other than developer charges, funding should be recognised as an asset contribution only where there is clear contractual or policy evidence that this funding was meant to be used to lower long-term prices.
ii. For the purposes of principle 6, contributed assets exclude gifts or grants where there is clear contractual or policy evidence that charges be set to achieve full cost recovery, inclusive of the value of the gift or grant.
iii. Equity injections should be distinguished from grants /gifts /contributions.
iv. It is acceptable for principle 6 to apply to legacy contributed assets if adequate information is available to identify them.

Principles for urban water tariffs

The principles for urban water tariffs have been developed to protect customers in situations where monopoly water suppliers do not face competitive pressures to deliver efficient levels of cost recovery and associated tariff structures.

Principle 1: Cost recovery

Water businesses should be moving to recover efficient costs consistent with the National Water Initiative (NWI) definition of the upper revenue bound: 'to avoid monopoly rents, a water business should not recover more than the operational, maintenance and administrative costs, externalities, taxes or tax equivalent regimes, provision for the cost of asset consumption and cost of capital, the latter being calculated using a Weighted Average Cost of Capital (WACC).

Note, this principle is in the context of commitments to full cost recovery.

Principle 2: Tariff structures

Two-part tariffs (comprising a service availability charge and a water usage charge) should be used to recover the revenue requirement from retail residential and non-residential and bulk customers[i,ii]

Notes:

i. Unless this is demonstrated to not be cost effective.
ii. This does not preclude charging for peak capacity.

Principle 3: Cost reflective tariffs

The water usage charge should have regard to the long run marginal cost of the supply of additional water [i] .

Notes:

i. On economic efficiency grounds the water usage charge should comprise only a single usage charge. However, governments may decide on more than one tier for the water usage charge for policy reasons, e.g. sending a strong pricing signal to encourage efficient water use; and having regard to equity objectives.

Principle 4: Setting the service availability charge

The revenue recovered through the service availability charge should be calculated as the difference between the total revenue requirement as determined in accordance with Principle 1 and the revenue recovered through water usage charges and developer charges.

The service availability charge could vary between customers or customer classes, depending on service demands and equity considerations. Attributable joint costs should be allocated such that total charges to a customer must not exceed stand-alone cost or be less than avoidable cost where it is practicable to do so.

Principle 5: Pricing transparency

Urban water tariffs should be set using a transparent methodology, through a process which seeks and takes into account public comment, or which is subject to public scrutiny.

Principle 6: Over recovery of revenue

Where water usage charges lead to revenue recovery in excess of upper bound revenue requirements in respect of new investments, jurisdictions are to address the over recovery. In addressing the over recovery, revenues should be redistributed to customers as soon as practicable.

Notes:

iii. This principle recognises that in some cases, long run marginal cost may exceed average cost.

Principle 7: Differential water charges

Water charges should be differentiated by the cost of servicing different customers (for example, on the basis of location and service standards) where there are benefits in doing so and where it can be shown that these benefits outweigh the costs of identifying differences and the equity advantages of alternatives[i] .

Notes:

i. Differential pricing may be achieved by upfront contributions, including developer charges.

Principle 8: Setting developer charges

Developer charges should reflect the investment in both new and existing assets required to serve a new development[i] and have regard to the manner in which ongoing water usage and service availability charges are set.

Notes:

i. Where there are benefits beyond the boundary of the development, the developer charge should have regard to the share of capacity required to serve the development.

Principle 9: Capping developer charges

Developer charges should not exceed the costs of serving new developments which includes investment in both new and existing assets required to serve a new development.

Principle 10: Revenue from developer charges

To avoid over-recovery, revenue from developer charges should be offset against the total revenue requirement either by excluding or deducting the contributed assets from the RAB or by offsetting the revenue recovered using other mechanisms.

Appendix B: Historic average bill profile

The table below summaries the Commission's estimates of the Robusto average bill profile on a bottom-up and top-down basis. These estimates use information provided in Robusto's annual returns submitted to the Commission. For financial year 2019-20, the 2018-19 consumption patterns and thresholds have been adopted because the 2019-20 annual returns are not yet available.

Based on this assessment and noting the upward trend in average bills in the bottom-up assessment, the Commission has adopted a benchmark annual average bill $900 from which to assess relative changes.

Table B1: Bottom-up and top-down estimates of Robusto's annual average bill

	2016-17	2017-18	2018-19	*2019-20*
Customer numbers				
Residential	165	172	172	*172*
Non-residential	2	2	2	2
Consumption				
Residential consumption (ML)	27	29	31	*31*
Non-residential consumption (ML)	1	1	2	*2*
Residential consumption (kL per customer)	163.6	168.6	180.2	*180.2*
Non-residential consumption (kL per customer)	500.0	500.0	1,000.0	*1,000.0*
Quarterly charges				
Supply charge ($)	71.60	73.10	74.45	75.40
Usage charge for each kL: 0-30kL ($)	2.61	2.67	2.72	2.75
Usage charge for each kL: 30-130kL ($)	3.73	3.80	3.88	3.93
Usage charge for each kL: >130kL ($)	4.03	4.12	4.20	4.25
Yearly consumption thresholds				
0-30kL	120	120	120	*120*
30-130kL	400	400	400	*400*
Average yearly residential consumption split by threshold				
0-30kL	120.0	120.0	120.0	120.0
30-130kL	43.6	48.6	60.2	60.2
>130kL	0.0	0.0	0.0	0.0

	2016-17	2017-18	2018-19	*2019-20*
Total kL	163.6	168.6	180.2	180.2
Average yearly residential bill on a bottom-up basis				
Annual supply charge ($)	286	292	298	302
0-30kL ($)	313	320	326	330
30-130kL ($)	163	185	234	237
>130kL ($)	0	0	0	0
Average yearly residential bill (bottom-up) ($)	762	797	858	868
Residential yearly income (bottom-up) ($)	125 790	137 170	147 559	149 350
Average yearly non-residential consumption split by threshold				
0-30kL	120.0	120.0	120.0	120.0
30-130kL	380.0	380.0	400.0	400.0
>130kL	0.0	0.0	480.0	480.0
Total	500.0	500.0	1 000.0	1 000.0
Average yearly non-residential bill on a bottom-up basis				
Annual supply charge ($)	286	292	298	302
0-30kL ($)	313	320	326	330
30-130kL ($)	1 417	1 444	1 552	1 572
>130kL ($)	0	0	2 106	2 040
Average yearly non-residential bill (bottom-up) ($)	2 017	2 057	4 192	4 244
Non-Residential yearly income (bottom-up) ($)	4 034	4 114	8 384	8 487
Bottom-up, top-down comparison				
Total yearly income (bottom-up) ($)	129 824	141 283	155 944	157 837
Average yearly bill (bottom-up) ($)	777	812	896	907
Total yearly income (top-down) ($)	140 800	165 000	152 000	
Average yearly bill (top-down) ($)	843	948	874	

Appendix C: Robusto's fourth proposal (adjusted)

This appendix summarises the adjustments made to Robusto's fourth proposal, in order, to the extent possible, to provide a basis of comparison with the Draft Regulatory Determination developed in Chapter 5. The adjustments made relate to the following:

- Adjustment 1: Removal of the impact of capital expenditure. The Draft Regulatory Determination does not include any capital expenditure for the reasons outlined earlier.
- Adjustment 2: Place Robusto's proposal in December 2018 prices. Robusto's proposal adopts at least two price basis: operating costs appear to be expressed in March 2017 prices (at the time of the first pricing proposal) while the asset value appears to be in December 2018 prices (based on the WGA report). Robusto's depreciation and return profiles are, therefore, assumed to be in December 2018 prices. Similarly, the category of claimed 'amortised losses' in Robusto's proposal is assumed to be in December 2018 prices.
- Adjustment 3: The Commission's understanding of Robusto's 'amortised losses' is that Robusto is suggesting it should be compensated for the historical losses made as a result of prices not recovering systems costs, with Robusto citing the cause of those losses being that the price determination was not in place. Based on this logic, amortised losses have been uplifted to 31 December 2020. For avoidance of doubt this simply represents the time shifting of Robusto's position, it does not reflect the Commission's view on the merits, or otherwise, of Robusto's position. This has been done via the following steps.

Table C1: Amortised losses adjustments

Step	Description
Step 1	Identify the daily cost based on Robusto's fourth proposal - This took the total figure of $318 270 and divided it by 909 days (the period from 17 March 2017 to 11 September 2019). - This gives a daily cost of approximately $350.
Step 2	Multiply by the relevant number of days to obtain a total - The number of days assumed is the period from 17 March 2017 to 31 December 2020 (1 386 days) - This gives a total of $485 283
Step 3	Divide this total over 5 years - This gives $97 057 per year

The outcome of these adjustments and time shifting Robusto's proposal by a year is provided in the following table.

C2: Reconciliation of the adjustments to Robusto's fourth proposal

	2019-20	2020-21	2021-22	2020-21 (50%)	2021-22 ($)(100%)	Total
Robusto's fourth proposal (unadjusted)						
Operating costs (nominal) ($)	258 860	253 513				
Depreciation on starting asset value (December 2018) ($)	88 300	88 300				
Depreciation on capital expenditure (December $2018) ($)	100 000	100 000				
Return on starting asset value (December $2018) ($)	135 000	135 000				
Return on capital expenditure (December $2018) ($)	225 000	225 000				
Amortised losses (December $2018) ($)	63 654	63 654				
Total revenue requirement ($)	**870 814**	**865 467**				
Capital expenditure adjustments						
- Remove capital expenditure elements from the revenue requirement ($)	325 000	325 000				
Operating cost adjustment 1						
- Remove inflation uplift so in $March 2017						
Inflation factor (%)	6.09	9.27				
Deflate to March $2017 ($)	244 000	232 000				
Operating cost adjustment 2						
- Inflate March $2017 figures to December $2018						
Inflation factor (%)	3.26	3.26				
Inflate to December $2018 ($)	251 954	239 563				
Amortised losses adjustment						
- Adjust amortised losses to be ($)	97 057	97 057				

	2019-20	2020-21	2021-22	2020-21 (50%)	2021-22 ($)(100%)	Total
Robusto's fourth proposal (adjusted)						
Operating costs (December $2018) ($)		251 954	239 563	125 977	239 563	365 540
Depreciation (December $2018) ($)		88 300	88 300	44 150	88 300	132 450
Return on capital ($)		135 000	135 000	67 500	135 000	202 500
Amortised losses ($)		97 057	97 057	48 528	97 057	145 585
Total revenue requirement ($)		572 311	559 920	286 155	559 920	846 075

Appendix D: Comparison of operating costs

While the efficient level of the costs for any water supply business will depend on the specifics of that entity (e.g. the available sources of water and the condition and configuration of the water supply network), a comparison of similar sized entities, who are all conducting broadly the same range of activities, can provide a view of the reasonableness of Robusto's operating costs (see Chart D1). [101,102] Robusto's operating costs, on a per customer basis, appear high when compared to comparable water supply entities in South Australia (though there are some exceptions). Further, Robusto's proposal for operating costs is to remain well above other comparators (see Chart D2).

Chart D1: Average operating cost per customer (2016-17 to 2018-19)

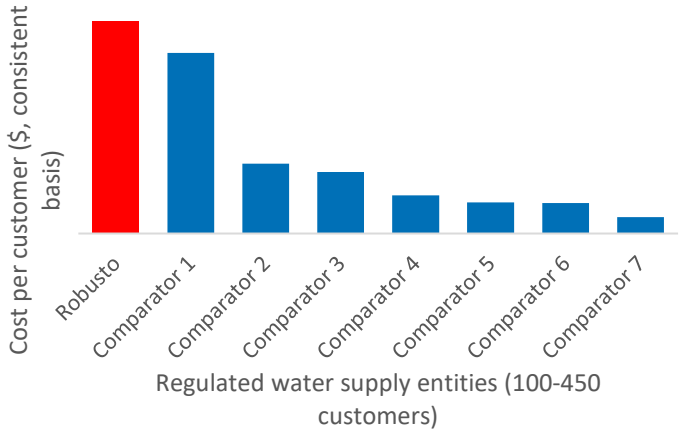
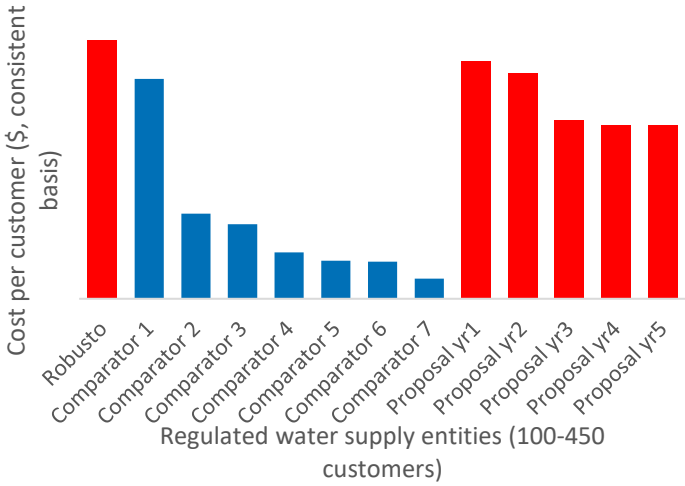


Chart D2: Average operating cost per customer (2016-17 to 2018-19) including proposals



[101] The operating cost information is based on the three year period 2016-17 to 2018-19. It has been collated from annual returns provided to the Commission by regulated water supply entities (see *Water Industry Guideline No.3*, July 2015, proforma FR1.2). The comparator group comprises drinking and non-drinking water supply entities, both private and council operated, all with between 100 and 450 residential customers. Those entities with material numbers of non-residential customers have been excluded, as the higher volumes that may be provided to non-residential customers has the potential to skew any comparisons.

[102] The Commission has taken into consideration the information from Charts D1 and D2. The Commission's general practice is to publicly provide sufficient supporting information and analysis to allow interested stakeholders to understand the reasons for its decisions. However, for reasons of confidentiality the information has not been disclosed in the Commission's Draft Regulatory Determination.

Appendix E: Robusto's estimates for future investment

A key part of the Commission's role in protecting consumers is to ensure that monopoly entities fund only prudent and efficient capital expenditure.

Broadly speaking, expenditure on an activity will be considered prudent where there is a clear justification for that activity. This will be informed by an assessment of whether the expenditure is driven by: a legislative or regulatory obligation, with which Robusto must comply; an expectation that the activity will deliver benefits to consumers that outweigh the costs; or a clear expectation from customers that an outcome should be achieved, and that they are willing to pay for that outcome. Expenditure is likely to be considered efficient where it represents the lowest sustainable (or 'long-term') cost of achieving the intended outcome.

A number of different estimates relating to capital expenditure requirements have been provided to the Commission over the period of this review. There is, therefore, material uncertainty as to the prudent and efficient level of capital expenditure that is required to maintain the water supply network into the longer term. It is noted that Robusto's proposal included information regarding capital investment in the network, but this was not included in Robusto's proposed price rises.

A summary of the capital expenditure information received is provided below.

For the purposes of this Draft Regulatory Determination, it has been assumed that no material capital expenditure is required within the forthcoming 18-month period. A long term view of the required capital expenditure to maintain the water supply network will be developed for the following revenue determination period, which will commence on 1 October 2022.

FMG Engineering's estimate

Robusto's first proposal in March 2017 included a capital expenditure provision for $1.5 million network upgrades, based on its assessment that '*…much of the water infrastructure is at or near the end of its functional life*'[103], and that '*…a complete overhaul of the system would be required in the very near term*'[104]. The cost of the proposed works was supported by a preliminary cost estimate prepared by FMG Engineering (dated 15 March 2017) that identified costs as presented in Table E1.[105]

Table E1: FMG Engineering estimated cost of water network replacement

	Total ($)
Preliminaries/insurances etc.	158 000
Water Supply	1 035 000
Electrical Works	50 000
Contingency (10%)	124 000
Estimated Contract Value	1 367 000

[103] Robusto, *Pricing submission Compass Springs – ESCOSA March 2017*, pp. 1-4.
[104] Robusto, *Pricing submission Compass Springs – ESCOSA March 2017*, pp. 1-4.
[105] The FMG Engineering estimate was attached to Robusto's March 2017 proposal. In line with this, it was noted in Robusto, *Pricing submission Compass Springs – ESCOSA March 2017*.

	Total ($)
Professional Fees - Engineers	70 000
Estimated Total Development Cost	1 437 000

While not itemised in the above estimate, the supporting information provided by FMG Engineering makes it clear that the scope of the works includes the following activities (with separate cost estimates where provided): replacement of all 2.9 kilometres of existing water mains; the installation of stop valves and fire plugs ($57 000); the provision of new connections and meters to all properties supplied ($249 000); the replacement of two existing water storage tanks ($48 000); the provision of one new additional water storage tank ($45 000); the installation a new booster pump ($50 000); the installation of a new UV treatment system ($30 000); and electrical upgrades ($50 000).

Robusto's estimate

Supported by the FMG Engineering work, Robusto provided its view of the capital costs of network upgrades (see Table E2). Across all four of Robusto's proposals to the Commission (March 2017 to September 2019), the estimate of required capital works remained at $1.5 million.[106]

Table E2: Robusto's estimated cost of water network replacement

	Total ($)
Renewal of 2.9 km of water mains	600 000
Renewal of connection pipes (and meters) to properties	600 000
Storage tanks replacement	175 000
Ultraviolet light treatment (cost excludes installation)	60 000
Other (project management and other costs) – up to	500 000
Estimated Total Cost of Works – estimate capped at	1 500 000

Wallbridge Gilbert Aztec (WGA)'s estimate

In early 2018, WGA were engaged by Robusto to collate asset information, produce scaled mapping, and to undertake a cost estimate for the replacement of the water supply infrastructure within the development. The Commission has been provided with a copy of a letter from WGA to Robusto, dated 5 July 2018, which provides a detailed cost estimate for replacement of the existing assets. This is summarised in Table E3.[107]

Table E3: WGA: Summary[108] of Estimated Cost of Water Network Replacement

[106] Robusto, *Pricing submission Compass Springs – ESCOSA March 2017*, Robusto, *Pricing submission Compass Springs – ESCOSA January 2019*, Robusto, *Pricing submission Compass Springs – ESCOSA April 2019*, and Robusto, *Pricing submission Compass Springs – ESCOSA September 2019*.

[107] WGA, *Compass Springs infrastructure replacement cost estimate report*, Job no. WAD189431, 5 July 2018.

[108] A fully itemised and costed listing of assets has been provided to the Commission. See WGA, *Compass Springs infrastructure replacement cost estimate report.*

	Total ($)
Water Distribution Network (includes mains, connections, meters)	975 230
Bores (includes two bores, power supply, discharge pipe)	285 700
Water Tanks (includes two water tanks and related equipment)	158 200
Preliminaries and Engineering (assumed at 15% of construction cost)	212 870
Contingency (assumed at 20%)	326 400
Total Renewal Cost	1 958 400

Commission's estimate (based on WGA condition assessment)

Following receipt of the WGA cost estimate,[109] further information was sought from Robusto on a condition assessment carried out by WGA. A further letter from WGA, dated 20 December 2018, was provided to the Commission by Robusto.[110] This contained detailed information on the actual condition and remaining lifespan of existing water supply assets. This highlighted, for example, that the water supply mains are in a serviceable condition and have a remaining lifespan estimated at 60 years.[111]

That further information provided by WGA allows the identification of those assets that are at, or approaching, the end of useful lives, needing replacement. The Commission has used this information, and the cost information provided by WGA, to produce an estimate of the cost of replacing those assets that are at, or approaching, the end of their lives. This is provided in Table E4.

The Commission also notes that a further $30 977 for additional UV treatment at the water tanks also appears necessary.

Table E4: Estimate of the cost of replacing at the end of asset lives (five year view)

	Total ($)
Water distribution network (includes connections, meters)	390 609
Bores (includes power supply)	137 724
Water tanks (includes support items)	29 256
Estimated cost of asset replacement	557 589
Additional UV treatment	30 977
Total estimated capital requirement	588 566

[109] WGA, *Compass Springs infrastructure replacement cost estimate report*.
[110] WGA, *Compass Springs infrastructure condition report for Robusto investments – Mount Compass*, project no. 189431, 20 December 2018.
[111] WGA, *Compass Springs infrastructure condition report for Robusto investments – Mount Compass*.

Appendix F: A comparison of the Commission's and Robusto's approaches to depreciation

Summary

Appendix F compares the Commission's and Robusto's approaches to calculating annual depreciation. The Commission's approach results in an annual depreciation charge of $24 804 per year (in December 2018 dollars), while Robusto's approach gives a charge of $88 300 per year (in December 2018 dollars). The main reason for the difference relates to the approach to remaining asset lives, and the extent to which this ensures the depreciation calculations are internally consistent with the depreciated replacement cost methodology. The Commission considers that its approach is internally consistent with both the BRM Holdich report and WGA report, while this does not appear to be the case for Robusto's approach. Both of these reports provide an independent assessment of the Compass Springs retail water business asset stock. The WGA report provides a replacement cost estimate, with the BRM Holdich report taking this estimate further to provide a depreciated replacement cost estimate. Both Robusto and the Commission have access to each of these reports.

Commission's approach

The Commission's approach is based on Attachment 2 of the BRM Holdich's report of 10 January 2019: *Robusto Investments Pty Ltd – Water Pricing Submission*. Attachment 2 provides the following information by asset type:

- **Replacement cost:** This as based upon the WGA report.
- **Asset life:** This provides the estimated life of each asset type if it were new.
- **Remaining asset life:** This provides the estimated remaining asset life for each asset type.

From these three pieces of information, the Commission calculated the depreciated replacement cost for each asset type as follows:

Depreciated replacement cost = (Remaining asset life ÷ Asset life) x Replacement cost

This results in the following aggregated results, with the single difference relative to BRM Holdich due to rounding.

Table F1: Commission and BRM Holdich depreciated replacement cost estimates

Depreciated replacement cost	Commission ($)	BRM Holdich ($)
Water network	716 407	716 406
Bores	88 964	88 964
Water tanks	56 580	56 580
Total	**861 951**	**861 950**

Thereafter, the Commission calculated depreciation for each asset type as follows:

Depreciation = Depreciated replacement cost ÷ Remaining asset life

Table F2 displays the results for the asset categories: water network, bores and water tanks.

Table F2: Commission's depreciation, remaining asset life and depreciated replacement cost calculations

Asset categories	Depreciated replacement cost ($)	Depreciation Schedule ($)	Remaining asset life (Yrs)
Water network	716,407	11,940	60.0
Bores	88,964	8,379	10.6
Water tanks	56,580	4,485	12.6
Total	**861,951**	**24,804**	**34.8**

Table F3 (below) provides detailed calculations underpinning the outcomes in Table F2. A key point to note in Table F3, and in the context of Robusto's approach, which is described subsequently, is that the remaining asset life for water network assets adopted by BRM Holdich is either 60 or zero years depending on the asset type.

Table F3: Commission's depreciation calculations based upon the BRM Holdich report

Assets by category	Replacement cost ($)	Asset life (Yrs)	Remaining asset life (Yrs)	Depreciated replacement cost ($)	Annual Depreciation ($)
Water network					
DN100 PVC PN12 pipe in trench 1 m deep	644,681	80.0	60.0	483,511	8,059
DN80 PVC PN12 pipe in trench 1 m deep	241,114	80.0	60.0	180,836	3,014
DN50 PVC/PE pipe in trench 1 m deep	57,408	80.0	60.0	43,056	718
DN100 stop valve	20,976	20.0	0.0	0	0
DN80 stop valve	8,832	20.0	0.0	0	0
DN40 - DN50 stop valve each	2,484	20.0	0.0	0	0
DN80 fire plug	51,612	30.0	0.0	0	0
DN100 bend	5,175	80.0	60.0	3,881	65
DN100x100 tee	4,347	80.0	60.0	3,260	54
DN100x80 and DN100x50 tee	2,484	80.0	60.0	1,863	31
Allotment Connections pipe side	89,700	80.0	0.0	0	0

Assets by category	Replacement cost ($)	Asset life (Yrs)	Remaining asset life (Yrs)	Depreciated replacement cost ($)	Annual Depreciation ($)
Allotment Connections road crossing including road reinstatement	89,010	80.0	0.0	0	0
Water meter assembly	83 559	10.0	0.0	0	0
Road reinstatement main	30 636	N/A	0.0	0	0
Pressure and compaction testing allowance item	13 800	N/A	0.0	0	0
Total water network	**1 345 818**		**60.0**	**716 407**	**11,940**
Bores					
Construct DN100 bore 46 m deep	69 000	30.0	10.0	23 000	2 300
Construct DN100 bore 35 m deep	62 100	30.0	10.0	20 700	2 070
Hydrogeological engineering and bore testing item	13 800	N/A	0.0	0	0
Bore pump 3 L/s	9 660	20.0	0.0	0	0
Bore discharge pipework DN50 m	8 280	80.0	60.0	6 210	104
Bore head assembly including valves item	22 080	20.0	0.0	0	0
Instrumentation item	5 520	20.0	0.0	0	0
Power supply and controls item	13 800	20.0	0.0	0	0
Power supply cable m	66 240	20.0	0.0	0	0
Bore slab and fence item	4 140	30.0	10.0	1 380	138
DN80 PVC PN12 discharge pipe in trench 1m deep m	113 022	30.0	10.0	37 674	3 767
Grass surface reinstatement sqm	6 624	N/A	0.0	0	0
Total bores	**394 266**		**10.6**	**88 964**	**8 379**
Water tanks					
Site preparation sqm	1 656	1.0	0.0	0	0
Construct 150 kL concrete water tank with roof	165 600	50.0	10.0	33 120	3 312

Assets by category	Replacement cost ($)	Asset life (Yrs)	Remaining asset life (Yrs)	Depreciated replacement cost ($)	Annual Depreciation ($)
Pipework including nozzles, valves and supports item	11 040	30.0	0.0	0	0
Level sensor and communication item	16 560	20.0	0.0	0	0
Fencing m	23 460	20.0	20.0	23 460	1 173
Total water tanks	**218 316**		**12.6**	**56 580**	**4 485**
Grand total	**1 958 400**		**34.8**	**861 951**	**24 804**

Robusto's approach

Robusto's fourth proposal was for a figure of $88 300 per year. The Commission's understanding is that this is based upon the following provided to Commission staff on 16 April 2019.[112]

The BRM Holditch (sic) report calculates the DRC for the water distribution network distribution network at $716,406.

A simple pro-rata assessment based upon the costs provided by WGA for replacement implies that roughly 65% of this amount has a remaining lifespan of 60 years. The balance 35% is far shorter.

The following table summarises what we consider to be a balanced view of the depreciation expense that could be applied on a simplistic straight line basis for the first 5 years.

Table F4 was provided by Robusto as follows:

Table F4: Robusto's depreciation proposal

Item	Value (approx.)	Lifespan remaining	Depreciation (P.A.)
Water distribution network (65%)	$485 000	60 years	$8 000
Water distribution network (35%)	$262 000	0-5 years	$65 000
Bores	$93 000	10 years	$9 300
Water tanks	$60 000	0-10 years	$6 000
Total	**$900 000**		**$88 300**

Commission's consideration of Robusto approach

The Commission is of the view that, while Robusto takes the BRM Holdich report as its starting point, the logic thereafter is not internally consistent with the outcome of the BRM Holdich report. This is for the following reasons.

[112] Robusto, *Pricing submission Compass Springs – ESCOSA April 2019.*

As can be seen in Table F3 above, the BRM Holdich depreciated replacement cost value is based on specific asset life assumptions for each individual asset type. If those assumptions are changed, then the depreciated replacement cost value will change, along with the implied depreciation schedules, given the following relationship.

Depreciated replacement cost = (Remaining asset life ÷ Asset life) x Replacement cost

Robusto's approach has not accounted for this fact. Robusto has altered the remaining asset lives relative to those adopted by BRM Holdich, but has maintained the depreciated replacement cost value implied by BRM Holdich using a different set of remaining asset lives.

In Table F3, when calculating the depreciated replacement cost value for the water network assets, BRM Holdich uses a remaining asset life of either 60 years, or zero years, for each water network asset. If zero years, this implies the asset is fully depreciated and potentially in need of replacement. This would be captured via capital expenditure that would, thereafter, feed into future depreciation schedules. When the remaining asset life is zero years, its depreciated replacement value becomes, by definition, zero (unless revalued subsequently).

Based upon the above, Robusto's proposal appears inconsistent with the BRM Holdich report depreciated replacement cost values upon which it is based. Further, if Robusto were to be of the view that 35 percent of the water network assets had a remaining life of zero to five years this would need to be appropriately calculated by asset type. This would then accurately account for the change in the depreciated replacement cost (noting the asset life and replacement costs are fixed), with subsequent implications for the depreciation schedules.

The Essential Services Commission
Level 1, 151 Pirie Street Adelaide SA 5000
GPO Box 2605 Adelaide SA 5001
T 08 8463 4444
E escosa@escosa.sa.gov.au | W www.escosa.sa.gov.au