Coliban WATER

Water to live, grow, & enjoy

Response to ESC Draft Decision

SUBMITTED TO THE ESSENTIAL SERVICES COMMISSION | MAY 2018

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A BOLD PLAN TO DELIVER LONG TERM BILL STABILITY

Executive summary

Coliban Water submitted its Pricing Submission (PS18) to the ESC in September 2017. In preparing PS18, Coliban Water undertook extensive customer engagement and ensured that every element of PS18 was underpinned by either customer support or external assurance.

The Board of Coliban Water provided key decisions for PS18 throughout 2016 and 2017. The PREMO rating endorsed by the corporation's Board was independently and externally assessed as *Advanced* and the entire submission was premised on the basis of intergenerational equity, smooth and stable prices at CPI minus 1% for 10 years and customer support for debt reduction.

After six months consideration, the ESC released its Draft Decision in March 2018. The ESC has invited businesses to respond on proposals in the Draft Decision by 8 May 2018.

Coliban Water has reviewed the ESC's Draft Decision and has received endorsement from the corporation's Board to respond with changes from the PS18 submission as detailed in this document. It should be noted that, in many instances, Coliban Water accepts the ESC's proposals set down within the Draft Decision in delivering fair and equitable prices and service outcomes for customers, while protecting the ongoing financial viability of the business. In certain matters, however, the corporation is seeking for the ESC to reconsider its position based on further information and evidence provided in this response.

The areas Coliban Water is seeking material variation from the Draft Decision are summarised as follows.

- Reassessment of the overall PREMO rating, with Coliban Water proposing that the ESC reset the rating to *Advanced* as put forward in the PS18 submission. In particular, the corporation seeks that the ESC reassess its rating of *Basic* for the Risk PREMO element.
- Re-inclusion of additional electricity expenditure that is to be incurred over the 2018-23 regulatory period, based on latest forecasts and the most recent contract offer received for energy procurement from July 2018.
- Re-inclusion of the full capital investment of $5.0m for the digital metering project within the PS18 regulatory period, when having regard to proposed additional safeguards and price guarantees for customers detailed in this response to the Draft Decision.
- Re-inclusion of additional $0.25m operating expenditure relating to the Elmore Septic Tank Effluent Draining (STED) sewerage system, given that this was erroneously removed by the ESC from the revenue requirement.
- Further evidence to support the proposed rate of Regulatory Depreciation in response to concerns raised in the Draft Decision.
- A price freeze in nominal terms for most services in 2018/19 and then CPI minus 1.1% for the four years thereafter, in line with the adjusted revenue requirement and customers' clearly stated preferences for smooth and stable prices (and bills).
- Adopting a Price Cap (tariff basket) form of price control instead of the proposed Hybrid Revenue Cap as presented in PS18.
- Removal of proposed pass-through of sewer pump station construction costs as part of future standard New Customer Contributions (NCCs) for sewerage, and instead include these as and where required for future urban land development proposals.

The Board of Coliban Water has, at its April 2018 meeting, accepted all other proposals and recommendations made by the ESC in its Draft Decision.

In presenting the material variations for the ESC's consideration, Coliban Water is proposing a revenue requirement of $606.6m for the PS18 regulatory period, which is an increase of $8.8m on the ESC Draft Decision. This requirement is $9.2m lower than the revenue requirement proposed in Coliban Water's PS18 submission, which represents an overall reduction of 1.5%.

Coliban Water welcomes the ESC's decision to approve all ten of the major capital projects that were specifically examined for the 2018 to 2023 regulatory period.

Coliban Water submits that its operating expenditure is highly efficient, with a Pricing Submission controllable urban operating expenditure of $699 per customer by 2022-23. This is the third lowest of the Pricing Submission proposals of the eleven Victorian regional water corporations.

Coliban Water has considered changes due to the recently delivered Victorian Budget. Payroll tax, a subcomponent of labour expenditure, will be lower. However, likely efficient labour expenditure remains above the amounts assumed for pricing purposes in the financial model. Coliban Water will manage this risk on behalf of customers, and hence no change is required to the financial model.

Form of Price Control

Coliban Water response: Propose the adoption of an alternative form of price control of Price Caps with tariff basket option.

Coliban Water's Pricing Submission provided a "traffic light" self-assessment of different forms of price control against the Water Industry Regulatory Order (WIRO) principles of:

- Understand pricing method;
- Promote efficiency;
- Avoid bill shocks; and
- Best interests of customers.

Under this approach, the preferred price control method was a Hybrid Revenue Cap (HRC) with Price Caps ranking as the next preferred. In the Draft Decision, the ESC did not support the HRC.

Key elements of Coliban Water's proposed HRC were:

- Sharing climate-induced demand risk with customers such that Coliban Water had more revenue certainty and customers had more long term bill certainty;
- Annual customer engagement to seek feedback on outcome performance and provide for smooth changes in prices to moderate volatility in bills; and
- Enable intra-period reviews of the proportion of revenue collected from fixed and variable charge, along with trade waste tariffs, and the introduction of innovative tariff options in consultation with customers.

The Draft Decision states that the Final Determination will include flexibility *"to change from a price cap to a weighted average price cap or tariff basket within a regulatory period."* Use of tariff baskets and a weighted average price cap will largely achieve the key objectives of the HRC, other than the sharing of climate-induced demand risk that leads to fluctuations in water demand. The business remains committed to delivering "CPI minus" bill movements to customers over 10 years and the flexible Price Caps as now proposed will aid the achievement of this.

Coliban Water submits that altering the preferred form of price control to Price Caps with tariff basket option will address the ESC's concerns on complexity, transparency and efficiency with respect to the HRC.

PREMO Rating

Coliban Water response: Propose re-rating of the overall PREMO rating to *Advanced*, based on the PREMO Risk element being re-rated by the ESC as *Advanced* after considering the response by Coliban Water to key concerns contained in the Draft Decision.

In the Draft Decision, the ESC downgraded the self-assessed overall PREMO rating from *Advanced* to *Standard*. While the self-assessments of *Advanced* for Engagement, Management and Outcomes were all endorsed, the Draft Decision revised down the PREMO Risk element rating from *Advanced* to *Basic*. Coliban Water welcomes the opportunity to provide additional information the ESC may require in support of an *Advanced* overall PREMO rating.

As outlined in the Draft Decision and subsequent briefings with the ESC, Coliban Water understands that the two main factors in this downgrade in the PREMO Risk element were:

- The proposed HRC form of price control;
- The Financial Viability Adjustment included in the revenue requirement to achieve financial performance indicators.

As outlined in the previous section of this submission, Coliban Water has proposed altering the form of price control method.

Coliban Water also withdraws the proposal for a Financial Viability Adjustment.

Given this, Coliban Water trusts that these two key changes to its original Price Submission sufficiently addresses the ESC's concerns that led to the PREMO rating downgrades, and that the ESC will re-rate Coliban Water's pricing proposals as *Advanced* for the overall PREMO rating.

In accordance with various ESC guidance, reference is made to the following aspects of the Pricing Submission and this response to the Draft Decision that support an *Advanced* rating for the PREMO Risk element.

- **Customer and community rebates**: Moving from four rebates to 18 for diverse areas such as water security, environmental damage and customer correspondence, with the indicators and their payment sizes determined by and through empowered customer engagement.
- **Credit review**: Undertaken an independent credit review, as required for *Advanced* Risk rating.
- **Credit rating improvement pass-through:** An innovative proposal to reward customers for their contribution to debt reduction, with Coliban Water charging lower than maximum prices that pass back to customers the equivalent of reduced Financial Accommodation Levy payments as a result of credit rating improvements.
- **Capital delivery efficiency target:** Including a 10% reduction to capital expenditure based on an objective that $14m of savings will be achievable over the regulatory period without reductions in service levels.
- **Digital metering cost savings:** Assumed cost savings due to digital metering will be retained within the 1.5% operating efficiency target even if such savings do not eventuate.
- **Exclusion of uncertain items:**
    - *Customer and community rebates*: By setting more competitive event triggers and many more rebates, a higher cost will be required for rebate payments. This cost has **not** been included in the revenue requirement ($0.5m over the period).

    - *Revenue not collected*: Unlike other water corporations, historical revenue not collected is **not** allowed for within the financial model ($0.8m over the period).
    - *Defined Benefits superannuation call*: there remains a possibility of future payments to 'top up' defined benefits superannuation fund balances, a funding provision has **not** been included in the revenue requirement.
    - *Trade Waste monitoring*: Additional waste monitoring will be required to support a more modern Trade Waste classification structure however this is **not** included in the revenue requirement proposed in this response ($0.4m over the period).
    - *Consequential operating expenditure*: Additional expenditure resulting from capital expenditure projects to be completed during the regulatory period.
  - **Unforeseen adjustment mechanism:** Excluding capital items such as the Castlemaine Link and Goldfields Superpipe upgrade (estimated cost: ~$30m – 50m) from the revenue requirement and only seeking to adjust prices once the works are required avoids the risk of customers paying for infrastructure that is not required within the regulatory period.
  - **Peer reviews:** Widespread use within Capital Life Cycle management of independent peer reviews in accordance with Department of Treasury & Finance's Gateway Review requirements. This ensures that major capital expenditure is only incurred when actually required.
  - **Capping CPI impact:** PS18 proposed to cap the impact of CPI for customers in 2018-19. The inflation figure released by the Australian Bureau of Statistics is lower than the previous forecast, and so the risk this cap sought to mitigate has not eventuated.
  - **Water supply and climate risk:** Reducing fixed charges for rural customers where end-of-season allocations do not reach 100% reduces their bills and hence lowers their exposure to supply and climate risk. It will also incentivise Coliban Water to use appropriate means to provide customers with the highest levels of service attainable.
  - **Independently reviewed costs:** The use of independent expert consultants to prepare and/or review capital costs mitigates the risks of cost under-estimates (which could lead to future bill increases) or over-estimates (which could lead to bills being higher now than they need to be).
  - **Post-submission adjustments:** No adjustments are proposed for known factors which would have otherwise led to increased customer bills:
    - *Industrial closures*: Significant revenue reduction due to the temporary closure of an abattoir and a milk factory in the region (up to $3m over the period)
    - *Biosolids:* Extra biosolids disposal costs ($1.0m+ over the period)
- **Greater NCC certainty:** Reducing risk of unexpected cost rises for developers by reverting to a "flat" standard NCC sewerage charge instead of one that varied in response to operational requirements and pass-through of the costs of future works.

Following completion of material elements of the Price Submission but prior to delivery to the ESC in September 2017, Coliban Water undertook a self-assessment of its PREMO rating. This was then independently reviewed by an expert economic consultant who affirmed the *Advanced* PREMO rating for the element of Risk. Coliban Water contends that the risk proposition for customers should be rated as *Advanced,* especially when taking into consideration the revised position presented in this submission regarding Price Caps with tariff basket option and the removal of the Financial Viability Adjustment.

Regulatory Depreciation

Coliban Water response: Propose reaffirming the 6.2% regulatory depreciation rate presented in the Pricing Submission, noting this rate was less than the externally assessed level required for long-term price stability.

The ESC has stated in its Draft Decision to *"… accept Coliban Water's proposed depreciation amount, given we typically allow flexibility in the calculation of depreciation…"* Additional information was also requested and this is provided below.

The Pricing Submission and the supporting financial template assumed the following rates of regulatory depreciation:

- Pre-2018 assets: 6.2% per annum. Included in these assets are BOOT plants which have a contract life of just 10 years remaining.
- "Top 10" Major projects: Only $1.6m of regulatory depreciation claimed compared to a total expenditure of $65m. This is in accordance with ESC historical precedent that regulatory depreciation on assets only applies after the assets are constructed.
- Other capital expenditure: 2.5% per annum, for programs and minor projects of an ongoing or BAU nature.
- BOOT depreciation: Statutory depreciation of BOOT scheme infrastructure was $4.7m per year, and to the extent this relates to capital expenditure prior to 2013 is not recovered directly through the revenue requirement. Capitalised BOOT expenditure since 2013 however has a shorter useful life given the expiry of the BOOTs in 2027-2028.

Technological change has resulted in there being a higher technology component in various projects. This has led to higher amortisation of such intangible assets. Furthermore, a renewed focus on whole-of-life costing internally has led to cheaper but less long-lived operational solutions to various service problems. Also, the impact on prices in the long term has been carefully considered via a collaborative approach with customers and independent financial modelling from consultants RMCG.

In 2017, as part of the extensive customer engagement program, Coliban Water hosted a community Price Path forum. Over four hours, and after being provided with sufficient background material, customers selected whether they preferred either:

1. Coliban Water to set price increase to match the rate of inflation for 10 years
2. Coliban Water prices will slowly increase by less than inflation over 10 years
3. Coliban Water prices will drop sharply in the first year with price rises higher than inflation in the long term[1]

The majority of customers preferred option 2, with option 1 being second most preferred. Option 3 was only preferred by one out of the 48 participants.

In strong regional communities like Bendigo and surrounds, people have a sense of pride in their region. They know that debts need to be paid off eventually and they have lived through the collective pain of the millennium drought. With average household incomes lower than metropolitan Melbourne, cost of living pressures can hurt the significant number of customers on concessions. Feedback from welfare groups and others was to avoid the risk of upwards price shocks, and that

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[1] It is noted that either of these three approaches could have been achieved by use of regulatory depreciation and/or financial viability adjustments.

steady price increases less than inflation were preferable to a large up front decrease followed by longer term uncertainty. The concept of customers taking a long term view was also evident in other innovative customer engagement undertaken in Lockington, Bendigo and towns that completed the water palatability survey.

The revenue requirement can be separated into two broad components:

1. Operating expenditure
2. Regulatory Asset Base (including both financing and regulatory depreciation allowances)

The operating expenditure forecast was for a growth-adjusted efficiency adjustment of 1.50% per annum on BAU operating expenditure. In the long term, if bills are to be achieving customer expectations of increasing at a rate lower than inflation, it is obvious that the Regulatory Asset Base should also be moving at approximately the same rate as operating expenditure. With customer growth very close to the operating efficiency target, this directly implies that at stable RAB will best deliver customer expectations.

In order to provide additional assurance, RMCG undertook modelling outlining that impacts that various rates of regulatory depreciation have on long term average bills and the RAB. Bill increases of CPI minus 1% are not achievable over the long term if a much lower regulatory depreciation rate is utilised. Further information and modelling can be provided to the ESC in support of this, if required.

While the nominated rate of 6.2% appears high compared to previous assumptions, it should be noted the unique circumstances have led to this. In addition to the BOOT considerations outlined above, Coliban Water noted in the 2013-2018 Water Plan that approximately $34m of regulatory depreciation had been deferred from the 2013-2018 regulatory period. Furthermore, regulatory depreciation on pre-2018 assets is also forecast to decrease $15m over the 2023-2028 regulatory period. In advance of the next Pricing Submission in 2022, Coliban Water will separately track regulatory depreciation by regulatory period – this will give enhanced confidence to the ESC regarding the future calculation of revenue requirements.

Financial modelling did consider the impacts of a much lower Regulatory Depreciation. The outcomes included debt increasing into the medium term. Coliban Water is not willing to undertake this level of financial risk on behalf of customers.

Financial Viability Adjustment

Coliban Water response: Accept the removal of the Financial Viability Adjustment set down in the Draft Decision and also withdrawing an equivalent offsetting increase to the Regulatory Depreciation, noting this will support a revised PREMO risk rating as advised by the ESC.

The Draft Decision removed the Financial Viability Adjustment from the revenue requirement reducing revenue by $5m. The Draft Decision stated that Coliban Water's financial indicators are either above minimum standards or improving sufficiently at the commencement of 2023-2028 regulatory period.

Coliban Water proposed an annual revenue requirement adjustment of $1.0 million for each year of 2018-2023, and that no adjustments would be necessary for 2023-2028. Coliban Water contended in its Pricing Submission that this adjustment was required because economic gearing (Debt to RAB ratio) exceeds the ESC upper limit of 70%. Applying the adjustment (instead of higher regulatory depreciation) ensures the RAB is increasing in real terms (rather than decreasing) and will result in economic gearing improving by reducing to 75% at the commencement of the 2023-2028 period.

The importance of the economic gearing is well understood in regulatory finance and economics.

- It has been a key indicator used by the ESC as far back as 2005.
- Credit ratings: This indicator was seen as a key negative indicator for Coliban Water in its recent Moody's Investor Service credit rating review.
- In a 2013 report for the ESC, NERA (Financeability of Regulated Water Service Providers) noted that *"Every regulator and credit rating agency … employs this metric to assess the debt burden of a service provider."*

Customers clearly signalled they wish Coliban Water to repay debt to reduce the financial burden on future generations. Coliban Water stated that if this viability adjustment is not supported by the ESC, then an equivalent offsetting increase to Regulatory Depreciation should occur to uphold the stable and smooth price approach over 10 years preferred by customers. This offsetting would, however, have the adverse impact of significantly reducing RAB over time and hence worsening the economic gearing ratio.

Modelling undertaken which excludes the Financial Viability Adjustment and assumes acceptance of all re-submitted items confirms satisfactory outcomes, albeit borderline, for all financial indicators. However, achieving financial viability targets for economic gearing and credit rating will be delayed by several years compared to the position proposed in the Pricing Submission.

Coliban Water recognises the linkage between the Financial Viability Adjustment and the PREMO Risk element rating. Therefore, consistent with the response to the Draft Decision to have the PREMO Risk element rating restored to *Advanced,* Coliban Water is not seeking to have the Financial Viability Adjustment included back into the revenue requirement or an equivalent offsetting increase to Regulatory Depreciation.

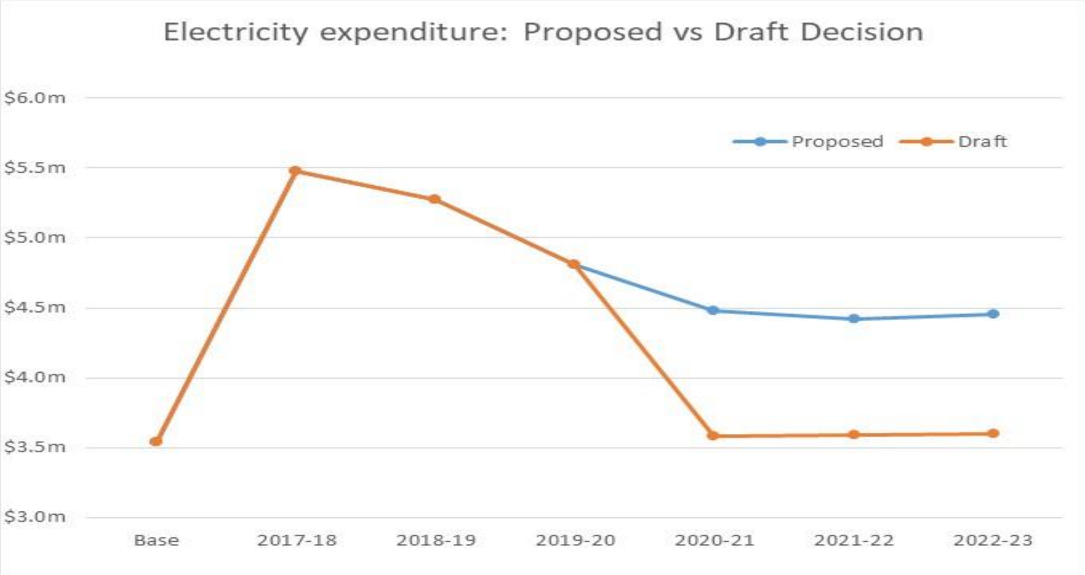
Operating expenditure – electricity

Coliban Water response: Propose inclusion of $1.91m of additional energy expenditure, noting that energy forecast expenditure is now $0.66m lower than in the Pricing Submission.

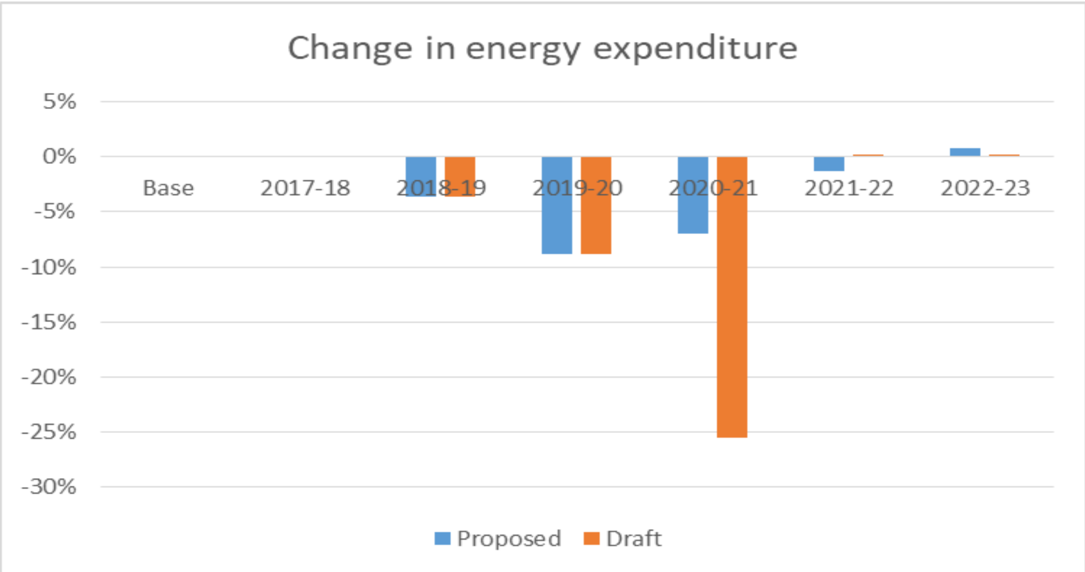
The Draft Decision approved $2.94m for above baseline electricity costs in 2018-2019 and 2019-2020 due to increased electricity prices and rejected $2.57m of increased expenditure for the period 2020-2021 to 2022-2023. Additional information (a revised and current contract offer) was requested and this is provided below.

In order to minimise operating expenditure, Coliban Water locked in energy expenditure in 2014-2015 for the three year period ending 2016-17. Compared to the average spot prices that applied during the 2016-17 year, actual energy expenditure was $0.94m lower for that year due to the very favourable 'locked in' energy prices. To provide external and internal assurance for this, independent market experts EnergyAction verified the magnitude of this expenditure variation and this verification is available to the ESC upon request. While it appears that the revised 2018-2023 variation in energy above baseline is $4.85m, 97% of this variance can be attributed to the independently confirmed fact that contracted electricity prices in 2016-17 were significantly below the prevailing market price at that time.

The value of the proposed and approved energy expenditure can be expressed graphically:

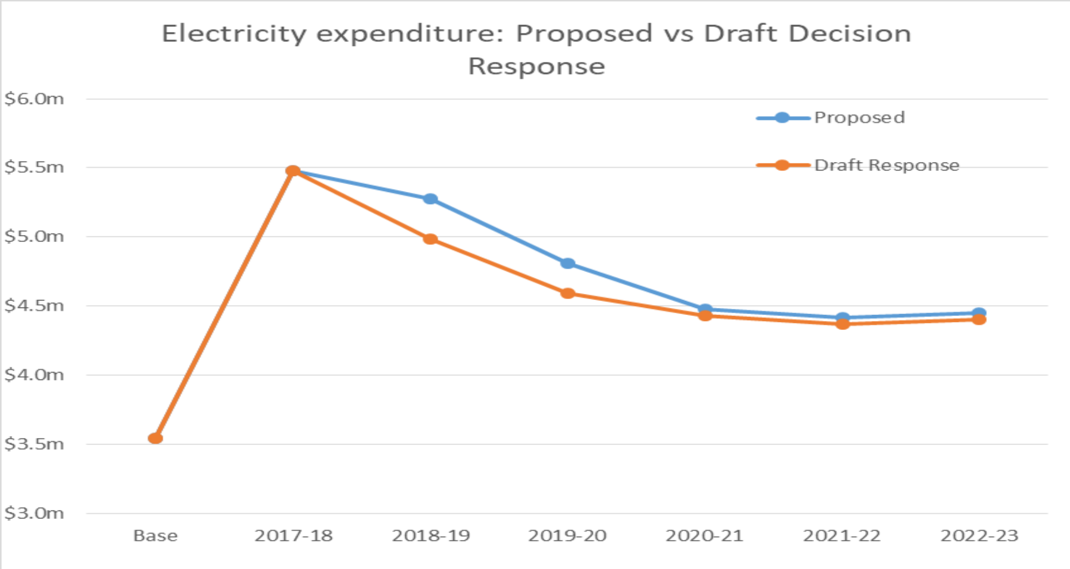


As shown above, the Draft Decision energy expenditure allowance includes a significant step change down in electricity expenditure levels in 2020-2021, however this is not demonstrated when currently available future benchmarks or contracts are considered. In particular, energy network costs show no signs of such significant decreases.



As required by the Draft Decision, Coliban Water rebased its forecast energy expenditure on currently available market offer rates for the three year period through to 2020-2021. The corporation originally sought a five year contracting period, however expert advice was that this was not feasibly efficient. Therefore, no real increase in market energy rates is assumed for 2021-2022 and 2022-2023. Forecast electricity consumption is based on historical usage with growth forecast at population growth rate less the assumed efficiency target of 1.5%, meaning an estimated modest annual 0.2% rate of growth of energy consumption.

Combining market offer rates and declining per customer energy usage, Coliban Water has recalculated energy expenditure and this generates savings compared to the original Pricing Submission forecasts. Coliban Water proposes passing these savings back to customers by including lower figures in the revenue requirement even though these figures in 2018-2019 and 2019-2020 are ***less*** than what was approved in the Draft Decision.



In light of this recent information, Coliban Water has revised its electricity forecasts down by $0.66m over the next regulatory period. This results in higher electricity expenditure than the Draft Decision but lower than the Pricing Submission. Coliban Water submits that this is an efficient forecast, given latest available information that is relevant, prudent and justified.

$m 2017-18	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**
PS18 Submission	$5.28	$4.81	$4.48	$4.42	$4.45
ESC Draft Decision	$5.28	$4.81	$3.58	$3.59	$3.60
Revised Forecast	$4.99	$4.59	$4.43	$4.37	$4.40
Change from PS18 Submission	*-$0.29*	*-$0.22*	*-$0.05*	*-$0.05*	*-$0.05*
Revised variation to baseline	*$1.41*	*$1.01*	*$0.84*	*$0.78*	*$0.80*

A full model outlining every subcomponent of energy expenditure by site and service category can be provided on request.

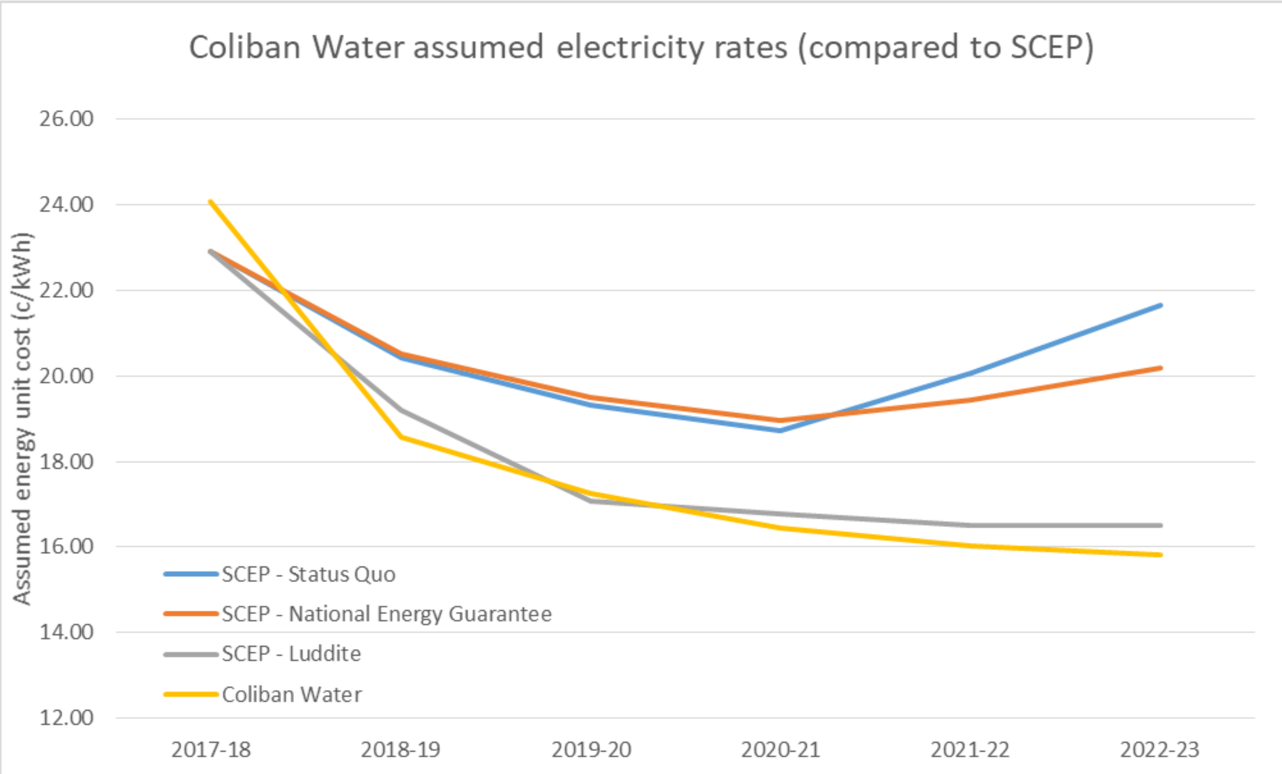
Combining all the subcomponents of energy expenditure results in the following blended average energy costs:

c/kWh (real $17-18)	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**
Average cost	18.58	17.26	16.44	16.04	15.81

Coliban Water also notes the following pricing assumptions under various scenarios compiled by the Supply Chain Excellence Program (SCEP):

c/kWh (real $17-18)	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**
Status Quo	20.42	19.32	18.72	20.07	21.65
National Energy Guarantee	20.51	19.50	18.96	19.44	20.18
Luddite	19.20	17.08	16.77	16.52	16.50

This data can be expressed graphically:



These figures are expected averages based on network costs across the state for a water corporation with a representative mix of charge types. Furthermore, data in the above table converts nominal calendar year data to real financial year data.

In order to make sure cost assumptions are specifically applicable to Coliban Water, ground up modelling is based on expected changes to each individual tariff item. Therefore, while the SCEP data is likely accurate for some water corporations, Coliban Water is instead assuming for pricing purposes its own estimates of energy expenditure. Over the regulatory period Coliban Water forecasts are therefore $0.529m below the SCEP Luddite option, and $4.379m below the SCEP Status Quo option. This reduces pricing impacts on customers, enables revised energy forecasts to be lower than originally proposed in the Pricing Submission, and supports Coliban Water's proposed re-rating of the Risk element of PREMO.

Operating expenditure - STED Sewer (Lockington & Elmore)

Coliban Water response: Propose re-inclusion of $0.24m over the regulatory period relating to *"costs to fund the discount to some sewerage access fees."*

Customers in Elmore and Lockington have STED sewerage services but have for some time been paying the same sewerage price as other towns with conventional sewer systems. Customers in these two towns have been receiving a lower level of service as they need to privately arrange and pay to have their septic systems desludged periodically, as their permanent connection to the sewerage network can only accept liquid effluent from the septic tank. Coliban Water empowered customers in these communities to choose an option that would address this inequity and ensure that the total cost they pay for the service they receive is in line with customers in other towns.

Lockington

The ESC approved forecast expenditure for desludging Lockington in the Draft Decision in line with the clear preference of customers. Furthermore, Coliban Water obtained legal advice regarding the inclusion of such expenditure in the revenue requirement, and it confirms that undertaking septic desludging of properties in Lockington declared as service properties would be a prescribed service.

Elmore

Based on customer views to retain the 'status quo' in terms of current desludging arrangements, there is no change in expenditure for Elmore compared to baseline as there is no change in the service arrangement or costs for these customers. Therefore, the reduction applied in the Draft Decision is erroneous and Coliban Water proposes the re-inclusion of the $0.24m expenditure reduction within the revenue requirement.

The ESC has since the Draft Decision advised that it has accepted a concessional sewerage tariff for Elmore. This revised Elmore tariff is not creating a cross subsidy – rather, it is removing one. In future, Elmore customers will pay a price for their sewerage services in line with the level of the service they have always received, and the present cost that Elmore customers privately incur will continue to be borne by Elmore customers.

$m 2017-18	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**
Forecast variation	$0.00	$0.00	$0.00	$0.00	$0.00
ESC Draft Decision	-$0.05	-$0.05	-$0.05	-$0.05	-$0.05
Revised Forecast	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*

Other operating expenditure items

Labour

Coliban Water is finalising a new enterprise agreement to apply for three years. The increase in labour expenditure as a result of this new agreement will impose operating expenditure on Coliban Water above the costs previously forecast. Modelling undertaken by Coliban Water shows that while there is a reduction in payroll tax forecast for 2018-19, actual labour expenditure (including payroll tax) as specified in row 13 of Expenditure Detail of the financial template will still be less than the likely actual expenditure.

Rather than seek an increase to revenue requirement for this, Coliban Water will seek to manage this expenditure within the revenue requirement hence avoiding bill impacts to customers.

Trade Waste monitoring

The Draft Decision has removed the $0.34m sought by the business for additional trade waste monitoring in the next regulatory period.

Given the current uncertainty around final trade waste tariffs that will apply from 2019-2020 with the current trade waste reclassification process, Coliban Water accepts this view and can manage any additional expenditure consistent within benchmarks in support of an *Advanced* PREMO Risk element rating.

The financial template has also been updated to enact the ESC's Draft Decision to *"not accept the additional $150,000 per annum from 2019-20."*

Consequential operating expenditure

The Draft Decision rejects the entirety of the consequential operating expenditure forecast in the Pricing Submission ($0.54m).

Coliban Water remains firmly of the opinion that projects in the portfolio of capital works proposed for the next regulatory period will result in net additional consequential operating expenditure above the benchmark. However, consistent with the position of seeking to mitigate risk exposure to customers to attain an *Advanced* PREMO Risk element rating, Coliban Water accepts the ESC's decision to remove this from the revenue requirement.

Post-submission cost adjustments – biosolids management

Six months on from the Pricing Submission PS18, Coliban Water has improved information on operating expenditure requirements in the regulatory period.

Coliban Water has recently become aware that land at Dingee where biosolids are applied has an excessive build-up of certain nutrients, and as such will no longer be able to receive biosolids from 2018-2019. Given the long-standing arrangement between Coliban Water and this site, moving biosolids disposal to an alternative site will involve significant additional expenditure (identifying a new site, site investigation, contract negotiations, shifting operations to the new site, etc). Precise estimates of additional expenditure are not currently available but are anticipated to be in excess of $1m over the regulatory period.

Coliban Water will internalise this risk and manage the additional operating expenditure within the final revenue requirement consistent with the proposal to have the PREMO Risk element rated at *Advanced*.

Capital Expenditure – digital metering

Coliban Water response: Propose re-inclusion of all digital metering capital expenditure within this regulatory period that was included in the Pricing Submission, taking into consideration initiatives to ensure expenditure is prudent and justified.

Coliban Water welcomes the ESC's decision to approve 97% of the capital expenditure forecast, but also considers that all expenditure on digital metering is prudent and efficient and should hence be re-included in the revenue requirement. Coliban Water submits that all proposed expenditure meets the WIRO and guidance paper requirements.

The Draft Decision only approves $1.1m of expenditure for digital meters compared to the proposed $5.0m. The Draft Decision and advice subsequently from the ESC notes concern that Coliban Water has not undertaken a “trial” and presents a view of risk transfer to customers in terms of “unproven” technology.

In response to these concerns, Coliban Water points out that it is already utilising data from digital meters with major customers to inform capital expenditure decisions. The corporation has also implemented innovative pricing with major customers for mutual benefit that utilises information from digital meters.

In order to protect customers from the risk of cost overruns related to this project, Coliban Water proposes additional customer protections provided the full project cost as presented in the Price Submission is included in the revenue requirement.

1. *Peer Review guarantee*: Coliban Water unreservedly commits to undertake an independent peer review in accordance with the Department of Treasury & Finance’s Gateway Review requirements during 2018-2019. If this independent review finds that the project should not proceed, then Coliban Water will apply a separate reduction in water prices in 2019-2020 of 0.42%. This will ensure that customers do not then pay for capital expenditure that is not supported.
2. *Cost compliance guarantee*: If cleared through an independent peer review to proceed in 2019-2020, if the project cost exceeds the present forecast then Coliban Water will not pass these overruns through to the regulatory asset base.

Coliban Water considers that greater use could be made of these cost control protections. Assessing how these protections incentivise behaviour and the management of costs for digital metering will inform the application of these protections for comparable projects in future regulatory periods. Where the digital metering project is delivered within budget, any savings will be passed back to customers in future regulatory periods.

Additional information pertaining to the digital metering project is available in an Appendix A to this document, and further supporting evidence is also provided.

New Customer Contributions (NCCs)

Coliban Water response: Propose accepting the Draft Decision to revert to a fixed Sewer NCC approach and to separately work with developers’ concerns via a revised negotiation approach in line with ESC guidelines.

The Draft Decision accepted proposed NCCs for water (including non-growth town concession) and recycled water. It rejected a pass-through of sewer pump stations via regular annual increases in the scheduled NCC for sewer and sought information as to what a revised standard NCC would be for sewer.

Coliban Water has significantly improved engagement efforts with developers in recent years. The innovative use of “fast tracking” tariffs arose from developer feedback as did the proposal to firmly respond to costs incurred by pioneer developers. Coliban Water acknowledges the ESC’s concerns about the lack of certainty that pass-through costs would lead to. Following engagement with the UDIA and clarification of guidance by the ESC, Coliban Water now considers that applying a greater focus on a negotiation approach can lead to improved financial outcomes for both current customers and developers.

Therefore, Coliban Water accepts the Draft Decision and instead proposes the continuation of a single standard sewer NCC at the same level as the water NCC in accordance with the WIRO and NCC principles. Coliban Water also proposes that the non-growth town concession applies to the sewer NCC as it will apply to the water NCC.

Acceptance of this revised position will reduce the revenue requirement compared to the proposed PS18 by $0.2 m.

$ 2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Standard Water NCC (growth)	1,596.10	1,596.10	1,596.10	1,596.10	1,596.10
Standard Water NCC (non-growth)	1,276.88	1,276.88	1,276.88	1,276.88	1,276.88
Standard Sewer NCC (growth)	1,596.10	1,596.10	1,596.10	1,596.10	1,596.10
Standard Sewer NCC (non-growth)	1,276.88	1,276.88	1,276.88	1,276.88	1,276.88
Standard Recycled NCC	798.05	798.05	798.05	798.05	798.05
Non-standard NCC	By negotiation				

Special meter reads and information statements

Coliban Water response: Based on additional customer feedback and a subsequent financial review, propose a reduction to the prices for special meter reads and information statements.

Following recent customer feedback regarding the prices charged for special meter reads and information statements, Coliban Water has undertaken a review of whether the current prices as approved in 2013 meet WIRO and Determination principles.

Coliban Water considers that current prices for these services ($37.78 and $56.76) are in accordance with the pricing principles, however better alignment would be achieved if prices charged in the future for these services were reduced.

If digital metering or other projects lead to savings in the costs of conducting these services during the regulatory period, Coliban Water will pass these savings back to customers in the form of lower prices.

$ 2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Special meter read	18.89	18.68	18.47	18.27	18.06
Information statements	28.38	28.06	27.75	27.44	27.14

Revenue Requirement

Coliban Water response: Submit that, with acceptance of the changes proposed in this submission, the revenue requirement will be $606.6m compared to $615.8m proposed in the PS18 Pricing Submission and $597.8m in the Draft Decision.

In response to the proposed revenue requirement of $615.8m over five years in the Pricing Submission, the ESC has approved a Draft Decision revenue requirement of $597.8m. Incorporating all amendments and clarifications outlined in this submission results in a revised revenue requirement of approximately $606.6m.

$m 2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
PS18 Submission	121.4	121.8	123.1	124.1	125.3
ESC Draft Decision	118.6	119.2	119.2	119.8	121.0
Revised Forecast	*119.5*	*120.3*	*121.4*	*122.0*	*123.4*

Customer outcomes

Coliban Water response: Propose with the acceptance of the changes presented in this response to reaffirm Coliban Water's commitment to achieve the customer outcomes in the Pricing Submission.

The Draft Decision proposes to approve Coliban Water's customer outcomes. These were derived following significant engagement with customers and are integral to the corporation's operational plans which underpin the Pricing Submission.

However, there remains a concern that the Draft Decision revenue requirement was reduced but the outcome to repay $5.5m debt per year over the regulatory period was accepted. Financial modelling demonstrates that the Draft Decision revenue requirement will not allow for achievement of this customer outcome. Similarly, the outcome of improving credit rating to BBB+ by 2021-2022 is not compatible with the Draft Decision.

In response to the Draft Decision, Coliban Water has provided new information in support of an *Advanced* overall PREMO rating. Subject to the ESC's favourable consideration of this response, Coliban Water affirms its commitment to achieving both the debt repayment and improved credit rating outcomes. However, this will require the corporation to achieve additional efficiencies beyond those presently budgeted or identified.

Price Levels

Coliban Water response: Propose a revised price path that retains the compact made with Coliban Water customers to provide smooth prices over 10 years by providing a slightly larger up-front price decrease to avoid a price scissor effect in the next regulatory period.

The price levels in the Pricing Submission were carefully formulated to enable a stable and smooth price path for 10 years with prices for most services increasing by 1% less than inflation each year. These price levels were achieved following customer engagement which demonstrated a desire for bills to increase less than inflation over the long term. Application of the Draft Decision with prices moving by the same percentage each year could have jeopardised achievement of this objective in 2023-2028. Revenue in 2022-2023 would have been lower than the revenue requirement and prices would therefore need to increase at a higher rate from 2023-2024 to 2027-2028 compared to the previous regulatory period.

Coliban Water submits that the preferred approach to uphold the compact with customers of "smooth pricing" is to have price changes in 2018-2019 at approximately CPI minus 2% followed by approximately CPI minus 1% thereafter for the next four years. Given the inflation adjustment to prices in 2018-2019 of 1.9%, Coliban Water considers a more customer centric approach is that prices for most services in 2018-2019 be held at the same nominal levels as 2017-2018 and applied in 2017-2018. Thereafter, modelling indicates that annual adjustments of CPI minus 1.11% are required. This better aligns to customer expectations and delivers front end savings to customers when compared with alternative approaches.

APPENDIX A – Digital meters

The ESC has approved $1.1m of the $5.0m capital budget sought for this project to cover the first phases of the proposed rollout. The decision to not include the additional $3.9m capital expenditure in the PS18 regulatory period has been made based on a number of factors identified by the ESC's consultant Deloitte, including that Coliban Water did not provide sufficient evidence for the "prudency" and "efficiency" of the full capital program, a perceived lack of appropriate options analysis and concerns that additional costs may arise to realise benefits from the rollout of digital metering. The Draft Decision also highlighted concerns from some customers about the safety of digital metering (in particular electromagnetic radiation), as well as concerns about the potential future introduction of time-of-use tariffs.

Coliban Water is confident that the rollout of digital metering across the region will deliver benefits to the business and customers that will outweigh the costs of delivering this project. A number of documents to support re-inclusion of the full budget in the PS18 regulatory period are attached to this response to the Draft Decision.

Due to the nature of the project, it has been subjected to scrutiny through a Peer Review Gate 2 (Business Case), based on the Department of Treasury & Finance's Gateway Review process, from 31 May to 2 June 2017[2]. The primary purpose of the Peer Review Gate 2 was to confirm that the Business Case is robust - that is, in principle it meets business needs, is affordable and achievable with appropriate options explored and is likely to achieve value for money. The overall delivery confidence assessment by the Review Team was 'Green' light. The Review Team concluded that the project has been well considered and investigated which has resulted in a comprehensive and well supported Business Case.

Further to this, the project implementation plan was subject to a Peer Review Gate 5 (Implementation Plan) in October 2017[3]. The Review Team also concluded the implementation plan is well considered and resourced and gave the implementation plan a 'Green' light.

A further Peer Review Gate 6 (Benefit Realisation) is planned towards the end of 2018-2019.

It should be noted that Phase 1 of the digital metering rollout, with installation of a total 1,348 data loggers to customer water meters in Borung, Korong Vale, Mysia, Trentham, Wedderburn and Wychitella, is progressing to timelines and is under budget[4].

PS18 digital metering projects

The ESC's Draft Decision for Central Highlands Water (CHW) included approval for its full rollout of digital metering during the 2018-2023 regulatory period. Reviewing its submission, and noting the similarities between CHW and Coliban Water (geographic size, population dispersion, number of customers, etc), its proposal is comparable in size and scope to the Coliban Water project.

Coliban Water also notes that the corporation is one of at least eight Victorian water businesses proposing to rollout digital metering during the 2018-2023 regulatory period as either trials or full rollout.

The Coliban Water project imposes zero additional cost to customers, with the rollout of digital metering funded through an increase in the technical life of water meters and additional operating expenditure offset by efficiencies that are realised. The project is thus delivered at zero additional

[2] Coliban Water, *Peer Review: Business Case (Gate 2)*, June 2017
[3] Coliban Water, *Peer Review: Implementation Plan (Modified Gate 5)*, October 2017
[4] Prevos P., *Digital Metering – Phase 1 progress report*, May 2018

cost above current business-as-usual, and in fact is a key driver for an annual operating efficiency of 1.5%. This has been externally supported and verified through the Peer Review Gate 2 (Business Case).

The contractor for Coliban Water's rollout of digital metering is the same firm engaged by CHW for its trial program. This provides further confidence that the project will be delivered successfully within timeframes and budget.

Safe technology

The ESC received several public submissions to the Pricing Submission regarding potential health concerns relating to digital metering, in particular concerns about potential impacts of electromagnetic radiation. The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) states that there is no established scientific evidence that the low exposure to electromagnetic radiation from digital meters adversely affects the health of children or the general population[5].

Coliban Water respectfully acknowledges that some people remain concerned about potential health impacts. To recognise the strong beliefs held by a small number of customers, Coliban Water is developing a policy for conditional opt-out. This policy will allow customers with genuine health concerns to forego installation of data loggers on their water meters.

Time of use tariffs

The ESC received feedback from several customers concerned about the potential introduction of time-of-use water tariffs, particularly their perceived lack of engagement with customers on this issue.

The deep engagement program undertaken as part of PS18 did include seeking customer views on digital metering and potential for time-of-use tariffs. In response to a General Survey[6], two-thirds of nearly 900 respondents indicated that they want the ability to check and monitor their water usage – a key outcome that can only be enabled by the rollout of digital metering. An even greater proportion of customers (74 per cent) supported the notion of receiving a discount for off-peak water usage, with only 15 per cent opposed to this. Again, the potential for off-peak discounted water tariffs can only be realised through the introduction of data loggers to measure actual peak and off-peak water usage.

Coliban Water intends to trial time-of-use tariffs with selected customers and towns during the 2018-2023 regulatory period. Prior to any such trials commencing, the corporation will assess outcomes and feedback received from customers via the rollout of digital metering and, based on this feedback, as well as targeted engagement with customers in those areas, then look to develop innovative tariff options for voluntary take-up – but only if supported by customers.

Where any such innovative tariffs are trialled, they will be on a voluntary basis with customers always retaining the right to revert to standard tariffs as approved by the ESC. Any such adoption of an innovative tariff regime in favour of customers will therefore need explicit ESC approval via the tariff basket approach.

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[5] https://www.arpansa.gov.au/understanding-radiation/radiation-sources/more-radiation-sources/smart-meters

[6] Previously supplied to the ESC and Deloitte

Additional project costs

In its expenditure review, the ESC's consultant Deloitte raised concerns about the potential for additional costs beyond those identified in the Price Submission to deliver the projected benefits from the rollout of digital metering. The ESC has largely agreed with Deloitte in this matter and included this as grounds in the Draft Decision for reducing the scope and approved capital expenditure for the digital metering project. These concerns were mostly around potential for additional IT costs and additional investment required to fix identified leaks.

As noted in the Price Submission, Coliban Water has internalised the potential costs identified by Deloitte. Any consequential operating expenditure arising from the rollout of digital meters is specifically excluded as additional operating expenditure associated with this project. In fact it is a key driver for the 1.5% annual operating efficiency.

Additional IT projects required to deliver benefits from digital metering, including development of databases and customer reporting, are currently being undertaken by internal IT staff as a business-as-usual activity. Development of the infrastructure required to receive, store and analyse the data has almost been completed. Any investment required to integrate the new data to the billing system forms part of the scope of the project to implement a new billing system.

As clearly noted in the Business Case for this project, rather than presenting additional costs to the business, digital metering will enable improved system maintenance through improved identification of faulty and 'at risk' pipelines and infrastructure, allowing the business to proactively target areas that are at most risk of failure. This means no additional operating costs are proposed, but instead better prioritisation of current maintenance activities. Again, Coliban Water views digital metering as a key enabler of controlling costs over the next regulatory period, as well as enabling improvement in customer outcomes related to minutes off water supply and customers receiving water service interruptions.

Contracts now in place for the procurement of meter readings data and digital metering are designed to incentivise the contractor to deliver high quality, reliable data. Coliban Water remains confident that the contract will deliver the expected outcomes for the forecast expenditure. The first phase of the project is 80% completed and all indications are that the contractor will deliver the project within timelines and budget.

To provide greater certainty for customers and to ensure that prices are not impacted by this project, Coliban Water will guarantee the maximum expenditure on the rollout of digital metering. If the total capital cost of the project exceeds $5.0m over the regulatory period, Coliban Water will not include the additional expenditure within the RAB. Similarly, if the project is delivered within budget, the savings will be returned to customers through lower prices. Any additional operating expenditure arising from the project above forecasts or operating savings not delivered will not be passed through and recovered from customers through higher prices.

Proof of concept

Deloitte and the ESC have expressed some concern that a digital metering trial has not been undertaken prior to committing to a full rollout. This is reflected in the ESC's decision to allow sufficient capital to meet costs of the initial stages of the rollout ($1.1m) but remove additional capital approval ($3.9m) pending an assessment of the "prudency" and "efficiency" of the investment.

There are two key elements to concerns around digital metering:

- Confidence in the technical effectiveness of digital meters and telemetry
- Confidence in the projected costs and benefits of a rollout of digital meters

Digital water meters are a mature technology that have been implemented overseas and within the Australian context. As well as CHW and Coliban Water proposing full rollouts of digital metering, there are at least six other Victorian water businesses proposing digital metering trials during the PS18 regulatory period.

The costs of digital metering and anticipated benefits are also well known and can be predicted with high confidence. A large number of case studies on the benefits of digital meters have been described in peer-reviewed literature on the subject[7]. As noted above, Coliban Water is using the same contractor for the rollout of digital metering as CHW's trial, giving greater confidence in the technical effectiveness and anticipated total costs for the project.

The Price Submission and the supporting material provided to Deloitte noted a range of benefits that will be delivered to the business and customers from the rollout of digital metering. These can be found in the digital metering Business Case[8]. As noted above, one key benefit is the extended technical life for water meters, with data loggers and replacement water meters to be rolled out for the same capital cost as water meters alone during the current regulatory period. Digital metering is to be delivered, therefore, at a net zero additional capital cost to customers.

The business has committed to undertaking full reviews of costs and realised benefits at each stage to assess the success of this project. This will include a full "360°" review towards the end of 2018-2019, including an assessment of the net benefits delivered by the project and how future rollout phases can be improved to ensure efficient and effective delivery. Furthermore, if the independent peer review delivers a 'red light' confidence for ongoing project delivery, Coliban Water will discontinue the project and remove this expenditure from future prices, resulting in an annual 0.42%% decrease in prescribed price movement for core water tariffs from 2019-2020. The ESC could either include this commitment within the Determination or acknowledge it as a voluntary commitment that sits outside the Determination.

Digital metering experience

Coliban Water has a number of years' experience with installation of digital metering and collection and use of this data for the corporation's largest business and rural customers. This gives further

[7] See for example: Britton, T. C., Stewart, R. A., & O'Halloran, K. R. (2013). Smart metering: enabler for rapid and effective post meter leakage identification and water loss management. *Journal of Cleaner Production*, *54*, 166–176. https://doi.org/10.1016/j.jclepro.2013.05.018

Gurung, T. R., Stewart, R. A., Sharma, A. K., & Beal, C. D. (2014). Smart meters for enhanced water supply network modelling and infrastructure planning. *Resources, Conservation and Recycling*, *90*, 34–50. https://doi.org/10.1016/j.resconrec.2014.06.005

Makki, A. A., Stewart, R. A., Beal, C. D., & Panuwatwanich, K. (2015). Novel bottom-up urban water demand forecasting model: Revealing the determinants, drivers and predictors of residential indoor end-use consumption. *Resources, Conservation and Recycling*, *95*, 15-37. https://doi.org/10.1016/j.resconrec.2014.11.009

[8] Coliban Water, *Digital Customer Metering: Business Case*, May 2017

confidence in the delivery of the broader rollout, including direct experience with realising key benefits of digital metering.

A total of 34 schools across the region have installed data loggers to measure water consumption via the *Schools Water Efficiency Program* (SWEP). This initiative has enabled these schools to identify and deal with significant water leakage. As of 2016, these schools had saved over 100 ML of water[9] in four years thanks to better leak detection enabled by data loggers.

Digital metering has already been rolled out to measure water consumption and sewerage and trade waste discharge for a number of major customers. Around 100 of the largest business and rural customers representing in excess of 20% of total water consumption have data loggers installed to measure their water consumption and waste discharge. This has delivered significant benefits to the business and the customers involved, as well as to local communities. Several examples highlight the benefits achieved from digital metering as outlined below.

1. Coliban Water supplies a large rural customer with urban water supply due to their location and needs. This understandably was proving expensive for the corporation, and was leading to significant water pressure concerns for local residential customers during peak summer demand periods. To address the issue, digital metering was installed to measure near real-time water consumption by the customer. This enabled the development of an innovative tariff regime whereby the customer was incentivised to consume water during off-peak months and store water rather than drawing from the network during peak summer months. As well as a significant financial saving for the customer, this has delivered real benefits to the network, with improved water availability and flowrate for residential customers during peak demand periods and deferred a multi-million dollar upgrade to a large trunk main.
2. Another large customer has significantly reduced total expenditure on trade waste services through the use of digital meter data. Under this innovative arrangement, the customer has been incentivised to install and deliver waste to its own treatment facility rather than discharge to the sewerage network. The customer then receives a discount on its trade waste access fee based on its maximum daily rate of discharge. This ensures that the customer is financially incentivised to deliver a steady flow of trade waste to Coliban Water's water reclamation plant rather than the previously 'peaky' loads. This has delivered significant benefit to the business with more consistent inflows to the reclamation plant and reduced peak flow through the network, enabling the deferral of a significant upgrade to a trunk sewer main.

Conclusion

The proposed rollout of digital metering within the 2018-2023 regulatory period represents prudent and efficient capital expenditure. The business case for the project demonstrates the benefits to Coliban Water and to customers will outweigh the costs of delivering the project.

Coliban Water has experience with digital metering of large customers through the rollout of data loggers to around 100 of the corporation's largest customers, as well as local schools via the SWEP program. This has proven the technology to the business and delivered real benefits to these customers, local communities and the business by avoiding or deferring capital works. It has also enabled Coliban Water to develop the necessary internal IT infrastructure to receive, store and report this information.

Customers were engaged on digital metering and associated benefits during PS18 consultation, and provided clear support for it as an enabler for better management of their water usage and potential

[9] https://coliban.com.au/site/root/about/media_and_public_affairs/releases/170816.html

for discounted off-peak tariffs in the future. Potential health concerns from electromagnetic radiation will be addressed via a conditional opt-out process on demonstrated health grounds.

The rollout of digital metering will be delivered within the forecast budget, with a guarantee that any additional unexpected costs arising from the project will not be passed on to customers. Also, this project is being delivered at net zero additional cost compared to business-as-usual by increasing the technical life of water meters, supported by the improved data collection from data loggers that will allow prompt identification of malfunctioning meters.

Finally, a comprehensive review process is in place that is fully compliant with DTF project review guidelines to assess realised costs and benefits at each project stage. These reviews will provide additional confidence the project is being delivered in line with forecast costs and that projected benefits are realised. If the independent review finds the project is not delivering the projected benefits to the business, the project will be discontinued and the avoided costs passed on to customers in the form of lower prices.

Progress of the digital metering rollout, including an assessment of costs and realised benefits, will be communicated to customers via the annual pricing engagement that will be held over the course of the regulatory period as well as periodic reporting to customers on project delivery performance.

As a consequence of the stringent review process in place and guarantees that customers will not face higher prices as a result of this project, Coliban Water proposes that the ESC include the additional $3.9 million capital expenditure to implement digital metering within the 2018-2023 regulatory period, in line with the proposal in the Price Submission.