



Review of response to Draft Decision

Essential Services Commission review of Goulburn-Murray Water

A Final Report prepared for the Essential Services Commission

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1. Introduction

1.1. Background

As part of the Essential Services Commission's (ESC) 2020 price review process, Aither was engaged by the ESC to undertake a review of Goulburn-Murray Water's (GMW) proposed capital and operating expenditure as well as the costs underpinning several tariff categories proposed to undergo tariff reform. During this process, Aither highlighted concerns regarding the robustness of GMW's cost information used to justify its proposed increases to the diversions service point fees (which GMW had proposed to increase in line with the service point fee increase in the GMID).¹

GMW responded to the ESC's Draft Decision with new cost information underpinning its diversion service point charges and re-presented those charges for the ESC's consideration in its Final Decision.

1.2. Purpose and scope

At the direction of the ESC, Aither has undertaken a high-level review of GMW's response to the ESC's draft decision on GMW's proposed diversions service point charges. The scope of this report is to assess GMW's responses in relation to:

- The robustness of the additional cost estimates
- The overall rationale for the level of costs underpinning its proposed diversions service point charges.

The review will assist the ESC determine if GMW's proposed charges are consistent with the WIRO pricing principles, specifically that the proposed diversions service point charges send signals about the efficient costs associated with those service points.

It should be noted that Aither has only reviewed the new cost information provided by GMW for diversions service points and has not assessed the additional information provided by GMW on its gravity irrigation district service points.

1.3. Limitations of our review

Given the time available for the review, it has been undertaken at a high-level and has not involved any additional information requests to GMW to further verify the information provided. The review is based on:

- the cost information supplied by GMW in its response to the ESC's Draft Decision, and
- a spreadsheet supplied by GMW that underpins the diversions service point cost data in its response.

¹ Essential Services Commission 2020, Goulburn-Murray Water draft decision: 2020 Water Price Review, 11 March, pages 55-56.

Given the time available for the review and its high-level nature, GMW's unit cost estimates, the number of units required to undertake activities and the frequency of those activities have been taken at face value.

2. Assessment of additional information

This section provides Aither's review of GMW's additional diversions service point cost information in response to the ESC's Draft Decision.

2.1. Summary of GMW's response

The ESC's Draft Decision did not accept GMW's proposed increases to diversions service point fees. In its response to the ESC's Draft Decision, GMW stated that its proposed increases to diversions service point fees in line with the proposed increases to gravity service point fees is a continuation of the approach it adopted in 2016. GMW outlines this approach as having:

*"...regard for simplicity, consistency and equity as well as efficient costs."*²

In light of the ESC's Draft Decision to not accept GMW's proposed diversions service point fees, GMW has re-evaluated the cost information underpinning its proposed diversions service point charges in an attempt to provide greater transparency of the costs that are incurred in the provision of service points for diverters. GMW considers that the additional detail:³

- demonstrates GMW's proposed diversions service point fees reflect efficient costs by providing greater transparency into the attributes that form the basis of the proposed fee, and
- shows that GMW's efficient costs for diversions unmetered and metered service points are greater than the service point fees proposed in GMW's Submission. This is because the cost information provided to the ESC's auditors in February 2020 omitted recovery of and on the RAB for metered irrigation service points, equal to \$151 per service point.

GMW provided Aither with the spreadsheet detailing the costing information and calculations behind the new breakdown of costs.

2.2. Objective of Aither's assessment

In its response to the ESC's Draft Decision, GMW lists the following point as demonstrating that the proposed diversions service point fees are derived from efficient costs, stating that:⁴

"To support the ESC in making its determination, Aither conducted an assessment of GMW's operating and capital expenditure forecasts. This assessment found that the assumptions underpinning the forecast controllable operating and capital expenditure to be reasonable ..."

Aither's review of GMW's proposed operating expenditure was conducted on the basis of rolling forward of an efficient baseline year with consideration of the removal of one off items from that year and the additional cost proposed above the baseline (as well as efficiencies) for the next regulatory

² Goulburn-Murray Water response to ESC Draft Decision, 24 April 2020.

³ Ibid

⁴ Ibid

period. Select capital projects were assessed for prudence and efficiency in addition to GMW's processes for identifying and delivering projects. This process led to an assessment of the overall level of expenditure and the total revenue requirement that GMW could recover from its customer base.

Contrary to the point made by GMW above, the expenditure review did not assess the underlying allocation of costs to individual tariff categories. Instead, that task was undertaken by Aither for discrete tariff reforms proposed by GMW as captured in the separate report on our review of GMW's proposed tariff reforms.⁵ The objective in that report was to assess whether the changes in tariff structures proposed by GMW were cost reflective and provided appropriate pricing signals to customers. It was this review of the tariff structures that raised concerns about the robustness of GMW's modelling and allocation of costs to specific service point tariffs based on the information provided by GMW.

We note that GMW's response to the Draft Decision states that if the ESC recommends adjustments to the proposed diversions service point charges, GMW will need to adjust other charges in order to recover the approved revenue requirement. The ESC will need to consider the impact on GMW's ability to recover the total revenue requirement from its charges if the new information provided by GMW on its diversions service point related costs does not sufficiently address the ESC's requirements for approval of the increases to the service point charges.

2.3. Assessment of the calculation of the charge

The quantitative cost information provided by GMW is based on a 15-year cost profile estimate for both unmetered and metered diversions service points. The cost profile estimate is based on several operating and maintenance activities occurring over the 15-years, underpinned by unit cost assumptions and utilisation for labour, vehicles, materials and management overheads. The 15-year cost profile estimate is discounted back to an annual average and forms the basis of the costs represented in GMW's response to the ESC's Draft Decision. Aither considers that this approach is appropriate as GMW has shown that not all cost activities occur annually, and a 15-year profile is able to capture these costs and provide an annualised cost estimate.

Aither reviewed the unit cost calculations in GMW's spreadsheet for each of the activity cost categories. By reviewing GMW's costs based on the units and their rates for each activity in GMW's spreadsheet Aither was able to confirm that the costs shown in GMW's written response are consistent with the calculation captured in its 15-year cost profile. For the sake of simplicity, we will not detail all the calculations within this report, however an example of the consistency for the annual site inspection costs is shown in Table 1.

Table 1 Example of activity cost calculation (Annual site inspection costs) (\$2019-20)

Activity component	Unit rate (\$)	Units	Cost (\$)
Travel to site (labour)	67.07	0.67	44.71
Travel to site (vehicle)	0.50	40.00	20.00
Mgmt on-cost (travel)	4.00	0.67	2.67
Time on site (labour)	67.07	0.50	33.54

⁵ Aither, 2020 Goulburn-Murray Water Price Review: A review of Goulburn-Murray Water's proposed tariff reforms – Final Report, 2020.

Mgmt on-cost (time on site)	4.00	0.50	2.00
Total			102.92
Annual inspection cost in GMW's response			103.00

2.4. Assessment of the additional costs

In its revised cost information, GMW has made several adjustments to the activity costs previously provided to Aither. In addition to these adjustments, GMW has also included some new cost items that had previously been excluded from its cost information.

2.4.1. Recovery of capital costs

GMW has proposed to recover the capital costs associated with the provision of service points for diverter customers within the metered service point charge. This cost was not captured as part of GMW's initial pricing submission. GMW notes that these capital costs are incurred by GMW and included in the RAB and therefore depreciation and a return on asset should be recovered from diversions customers via the metered service point charge.

Aither considers that the concept of including capital costs in the calculation of a charge such as this to be appropriate. However, we note that the depreciation and return on asset information in the spreadsheet provided by GMW is hard-coded and therefore we are unable to determine whether the amount for the capital cost component is appropriate.

It is important to ensure that the costs have not been recovered elsewhere, however given the timeframes available and scope for the review, we have not verified the level of capital costs that have been incorporated in the calculation by GMW. We have therefore had to take the information at face value and assume that the amount proposed by GMW accurately reflects their views on the appropriate level of capital costs to be recovered.

2.4.2. Metering support costs

In the cost information supplied to Aither as part of GMW's initial pricing submission, GMW had overlooked the inclusion of the cost it incurs for the provision of metering support. GMW states that these costs are incurred on an annual basis and allocated across both diversions and gravity service points.

Aither considers that the concept of including these to be appropriate. However, given the timeframes available and scope for the review, we have not verified the level of these costs that have been incorporated in the calculation by GMW. We have therefore had to take the information at face value and assume that the amount proposed by GMW accurately reflects the costs incurred.

2.5. Consistency of information from previous assessment

Table 2 and Table 3 show the original diversions service point cost information provided to Aither by GMW and compares it with the new cost data supplied by GMW in response to the ESC's Draft Decision. The tables also provide high-level explanations for the cost variations based on comments provided by GMW and Aither's assessment of the assumptions underpinning GMW's cost data.

The comparison highlights some significant variations in the costs provided by GMW to Aither, particularly for the metered service point meter reading, solar panel maintenance activities and annual inspections. Unmetered service point costs also had some significant variations in activities relative to the total cost.

It is evident that GMW has undertaken a much more thorough assessment of the cost activities underpinning the new cost data and presented those costs in a more transparent manner.

Table 2 Diversions unmetered service point costs – Comparison of costs supplied by GMW pre and post Draft Decision (\$nominal)

Activity component	GMW's revised cost in response to Draft Decision	GMW's initial costs proposed	Variance	Explanation of differences based on information supplied by GMW
Annual inspection	\$81	\$45	\$36	New cost data includes the specific travel costs for annual inspections that were previously captured in a high-level estimate (see below). GMW's new cost data also identifies that additional time is required on-site to gather information to support deeming calculations.
Deeming	\$39	\$40	-\$1	No material change
Metering support	\$3	\$0	\$3	GMW's new cost data now includes recovery of direct meter support costs that had previously been excluded.
Meter validation	\$3	\$16	-\$13	This activity occurs every five years in the 15-year cost profile and only for 10% of service points in the unmetered diversions service point category. This represents the small number of these sites that are metered to validate the deeming module. Cost is averaged in the 15-year profile to capture the cost per annum. This estimation is now included in GMW's new cost information. The previous costs provided by GMW incorrectly overstated the annual recovery of meter validation costs.
Travel Time		\$20	-\$20	Specific travel costs have now been estimated and allocated across the various cost items aiding in transparency as to how/where travel costs are incurred.
Opex subtotal	\$126	\$121	\$5	
Corporate overheads	\$26	\$25	\$1	Still 21% allocation however now based on higher operating costs.
Total	\$152	\$147	\$5	

Table 3 Diversions metered service point costs – Comparison of costs supplied by GMW pre and post Draft Decision (\$nominal)

Activity component	GMW's revised cost in response to Draft Decision	GMW's initial costs proposed	Variance	Explanation of differences based on information supplied by GMW
Annual inspection	\$113	\$45	\$68	New cost data includes the specific travel costs for annual inspections that were previously captured in a high-level estimate (see below). GMW's new cost data also identifies that additional time is required on site to gather information and update the Asset Information Management System with current asset data, noting that each pump set-up is unique.
Meter reading	\$80	\$120	-\$40	GMW has removed the costs of two meter readings in the new cost data that were incorrectly captured. GMW will undertake one meter read per year with customers undertaking the additional readings in an effort to reduce their costs going forward. New cost data also includes the specific travel cost for the annual meter read that was previously captured in a high-level estimate (see below).
Metering support	\$24	\$0	\$24	GMW's new cost data now includes recovery of direct meter support costs that had previously been excluded.
Battery maintenance	\$8	\$21	-\$13	Activity occurs every 3 years at the time of the annual inspection. Only applies to 40% of service points representing the proportion of modernised meters requiring this maintenance. Cost is averaged in the 15-year profile to capture the cost per annum. GMW previously overstated these costs.

Activity component	GMW's revised cost in response to Draft Decision	GMW's initial costs proposed	Variance	Explanation of differences based on information supplied by GMW
Solar panel maintenance	\$8	\$114	-\$106	Activity occurs every 15 years and only for 20% of service points representing the small number of modernised service points that have solar panels. Cost is averaged in the 15-year profile to capture the cost per annum. In the previous cost data GMW incorrectly included the cost of a valve. In the new cost data GMW has identified that the valve is a private asset of the diverter customer and it has therefore removed the cost.
Meter validation	\$39	\$32	\$7	Activity occurs every 5 years in the 15-year cost profile. The cost is annualised in the 15-year profile to capture the cost per annum. These costs apply to all meters in this category. New cost data includes the specific travel costs that were previously captured in a high-level estimate (see below).
Travel Time		\$20	-\$20	Specific travel costs have now been estimated and allocated across the various cost items aiding in transparency as to how/where travel costs are incurred.
Opex subtotal	\$272	\$351	-\$79	
Corporate overhead	\$57	\$74	-\$17	Still 21% allocation however now based on lower cost base.
Subtotal	\$329	\$425	-\$96	
Capital cost recovery	\$165	\$0	\$165	Diversions meter is funded by GMW and included in the RAB. The depreciation and return on asset costs have therefore been captured in the diversion metered service point cost build up. This was excluded from the costs provided previously.

Activity component	GMW's revised cost in response to Draft Decision	GMW's initial costs proposed	Variance	Explanation of differences based on information supplied by GMW
Total	\$494	\$425	\$69	

2.6. Consistency of information within calculations

Aither notes that the activity data supplied by GMW contained some minor variations in the travel time units for labour and vehicles across unmetered and metered service points and between undertaking annual site inspections and meter reads. While this may be intentional, and the variations are minor, given the timing of this review we have not confirmed this with GMW.

2.7. Summary of findings

The comparison of the diversions service point costs provided to Aither for our previous review with the costs put forward by GMW in its response to the ESC's Draft Decision highlights some material variations in the derivation of the cost estimate. It is evident that GMW has undertaken a much more thorough assessment of the cost activities underpinning the new cost data and presented those costs in a more transparent manner.

On balance, Aither considers the new 15-year cost profile approach used by GMW for the estimation of its diversions service point costs is appropriate and more robust than the cost information previously provided to Aither, as is the rationale for the inclusion of its cost activities and the assumptions used. We note that the unit rates, number of units and their frequency have been taken at face value and Aither has been unable to validate or test this information provided by GMW. Similarly, while Aither considers the inclusion of the recovery of the RAB related costs in metered diversions service points is appropriate, the combined depreciation and ROA cost specified by GMW has not been validated or tested by Aither.

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