Queensland Competition Authority

Irrigation price review 2020-24

Consultation on draft report

9 October 2019

Today's session

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Purpose of this workshop

- Role of the QCA
- Pricing framework
- Apportioning dam safety upgrade capex
- Review of cost drivers
- Prices and bill analysis
- Sunwater's supplementary submissions
- Next steps

QCA's role

- The Queensland Competition Authority (QCA) is the independent economic regulator for Queensland under the QCA Act 1997.
- The QCA does not have a standing remit to investigate water issues in Queensland.
- The QCA investigates water issues in Queensland where we have been referred an investigation by the Treasurer under the QCA Act 1997.
- The QCA:
  - does not make policy
  - does not make the final decision.
- The Irrigation Price Review 2020-24 is a separate regulatory process to other activities undertaken by the QCA (e.g. setting regulated retail electricity prices under the Electricity Act).

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Purpose of our draft report

- Sets out our draft recommendations and explains how we have arrived at them
- Provides stakeholders with an opportunity to review and comment on our proposed approach, prior to us finalising our report
- We take all submissions into account when we recommend final prices to the Government.

Who are we recommending prices for?

- Scope of our review is set by the referral notice
- Only recommending prices for **irrigation customers** in the schemes/systems listed in the referral notice
- Irrigation customers *use water for the irrigation of crops or pastures for commercial gain*
- Prices for non-irrigation customers are out of scope – those prices are determined by Sunwater.

The pricing framework

- We must conduct our investigation in accordance with the relevant legal framework
- For this investigation, the key components are the referral and the QCA Act
- The framework:
  - directs us to provide recommendations on particular issues
  - provides guidance on the matters we must consider
  - sets out the pricing principles we are to apply in calculating recommended prices.

The pricing framework

- Referral reflects the Government's water pricing policy, which aligns with its commitments under the National Water Initiative
- Policy applies different pricing frameworks and objectives to different customer groups, with:
  - prices for certain irrigation customers determined by the Government and expected to transition over time to prices that recover lower bound costs
  - prices for other customers negotiated by the relevant water business with their customers and expected, where practicable, to transition over time to full commercial prices.

The pricing framework – lower bound

- 'Lower bound‘ prices recover the prudent and efficient costs of operating, maintaining, administering and renewing each scheme. These costs exclude certain costs, such as a return on and of existing assets (as at 1 July 2000).
- Full commercial or 'upper bound' prices include the same costs as lower bound prices as well as a provision for the costs of capital
- While lower bound prices are referred to as 'cost reflective', they still involve a subsidy from taxpayers, as the water businesses are neither earning a return on, nor recovering, the initial investment in the existing assets.

The pricing framework

We must have regard to the following when recommending prices:

- section 26 matters, including:
  - efficient resource allocation
  - social welfare and equity considerations
  - economic and regional development issues
- matters required by the Treasurer's referral notice, including:
  - allowable costs and the government's pricing principles
  - balancing legitimate commercial interests of businesses with interests of their customers
  - where possible, transparent and simple revenue and pricing outcomes

The pricing framework

- The matters we are required to consider are diverse and may at times require us to make judgements about the relative importance of matters in particular circumstances
- We have considered all issues raised in submissions in deciding the relative importance to attach to the relevant matters
- We have emphasised the pricing principles as these principles give effect to the Government's lower bound cost target
- The Government has indicated that, in setting the lower bound cost target for irrigation water prices and establishing a gradual transition path to that target, it has considered a range of matters including customers' capacity to pay and benefits of industry to the Queensland economy

Dam safety upgrade capex

- Directed by Government to provide prices with and without an allowance for dam safety upgrade capex
- The Government will decide which set of prices will apply when it sets prices
- Consistent with the referral, our draft prices and proposed approach to apportioning dam safety upgrade capex only apply to irrigation customers in the specified WSSs and distribution systems
- There are no dam safety upgrade projects forecast to commence in Boyne River & Tarong WSS during this pricing period.

Dam safety upgrade capex – proposed approach

- Only prudent and efficient upgrade capex that is required to meet dam safety obligations
- Dam safety upgrade capex should generally be treated as a normal cost of operation in supplying water services
- Regulatory asset base (RAB) approach, as-commissioned basis
- Allocated to water users unless there is a clear justifiable basis for allocating some of the costs to other parties
- Two primary reasons for allocating costs to other parties:
  - Dam provides a formal flood mitigation service
  - For dams that do not provide a formal flood mitigation service, dam provides informal flood moderation / management benefits

Dam safety upgrade capex – proposed approach

- Where a dam provides a formal flood mitigation service, that service should be recognised in the allocation of costs, including dam safety upgrade costs
- The costs associated with that service should not be apportioned to irrigators
- The costs associated with that service should be allocated to the beneficiaries of that service (where possible) or the broader community

Dam safety upgrade capex – proposed approach

- Some dams that do not have a formal flood mitigation role may still provide informal flood moderation and/or management benefits for downstream communities
- In light of those benefits, there is a case for sharing some of the costs of dam safety upgrades with the beneficiaries in the broader community where the upgrades will result in improved flood moderation or management
- For dams that do not provide a formal flood mitigation service, dam safety upgrade capex should be:
  - allocated using a general allocation ratio (dam-specific allocation ratios only used in certain circumstances) that allocates 80 per cent of the irrigation share of these costs to irrigation water users
  - the remaining 20 per cent should not be included in the allowable cost base for irrigation pricing purposes

Dam safety upgrade capex – Barker Barambah

- Dam safety upgrades for this scheme are due to be commissioned in 2027–28.
- On an ‘as-commissioned’ basis, capex is incorporated in the RAB in the year of commissioning. Therefore, the capex in this scheme will not impact on prices in this period.
- We have estimated the impact in the year following commissioning (2028–29) to be a $22.14/ML increase to the cost reflective fixed (Part A) price.

Lower bound costs

Cost-reflective prices that incorporate costs allowable under referral:

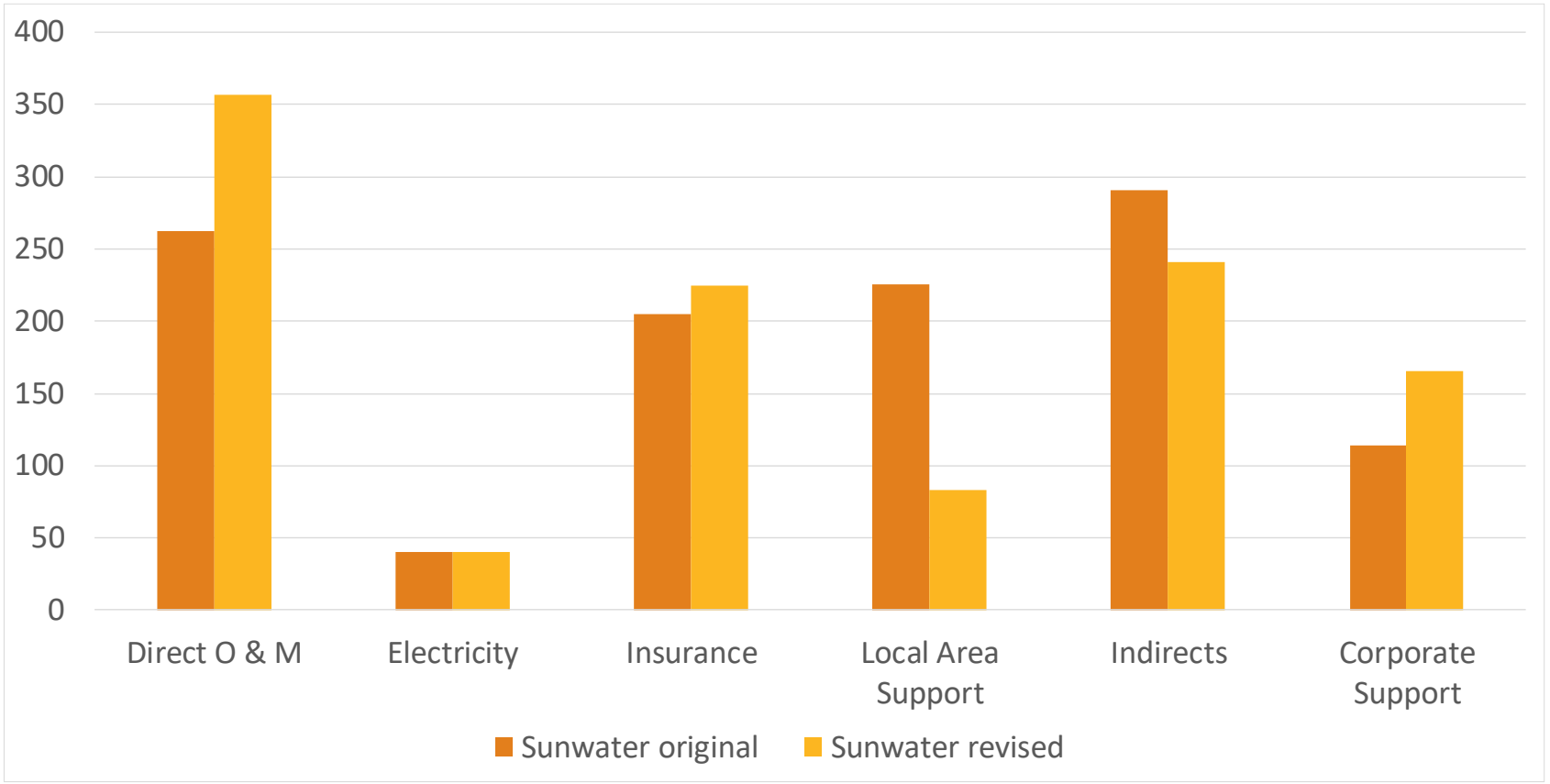
- prudent and efficient costs allowable under the referral:
  - operational, maintenance and administrative costs
  - appropriate allowance for expenditure on renewing existing assets
  - QCA fees (up to $2.5 million cap) – not included in SunWater's costs/prices.
- includes costs required to meet regulatory obligations or deliver agreed service levels.
- costs recoverable from prices exclude:
  - the recovery of capex prior to 1 July 2000 used to build existing assets
  - subject to certain exceptions:
    - recreational costs incurred from 1 July 2020
    - costs associated with augmentation of existing assets, new assets, or any capex that is not like-for-like or does not reflect regulatory requirement.

Operating expenditure

- Sunwater's submission (November 2018)
  - November 2018 submission based on Sunwater's budgeted costs for 2018-19
  - Cost categories with increases from 2012 review were:
    - Barker Barambah WSS: all cost categories except direct O&M
    - Boyne River and Tarong WSS: all cost categories.
- Sunwater's updated cost forecasts (June 2019)
  - Sunwater advised that updated forecasts provided a more accurate forecast of the costs of operating irrigation service contracts, with key changes:
    - ↑ direct O&M (due to increased direct charging of labour to service contracts, and reallocation of light vehicles from local area support costs)
    - ↓ local area support costs (due to increased direct charging of labour to service contracts, and reallocation of light vehicles to direct operations)
    - further changes to its cost allocation methodology, as the initial submission was provided before it had completed the review and update of this
    - updated insurance (↑), IGEM costs (↓) and renewals costs.

Sunwater's proposed opex

Barker Barambah WSS – base year opex ($'000, $2018-19)



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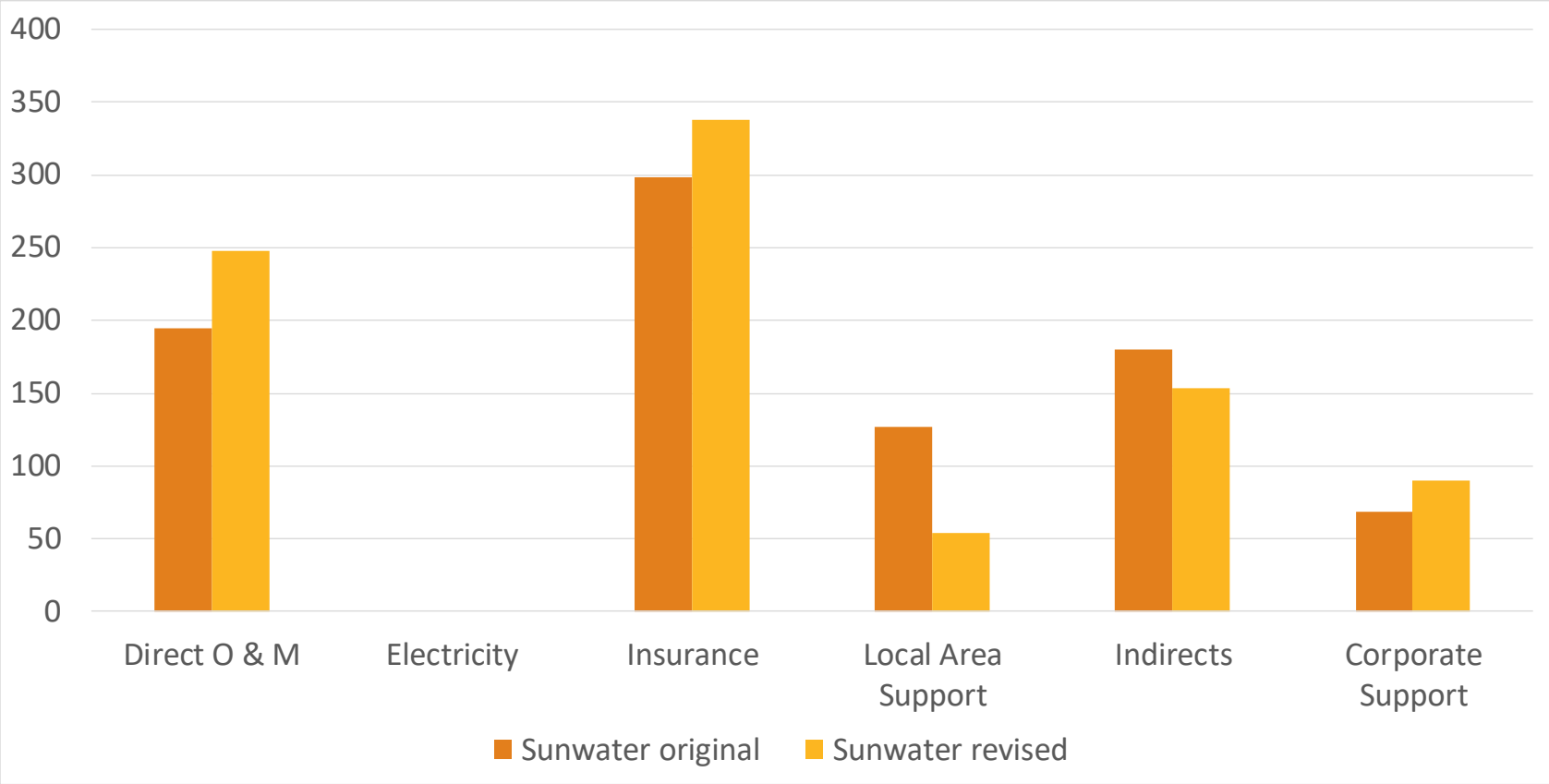
Sunwater's proposed opex

Boyne River and Tarong – base year opex ($'000, $2018-19)



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Opex – QCA assessment approach

Review Sunwater's cost submission	• Is the forecasting method reasonable? • Has Sunwater addressed relevant issues and actions arising from the 2012 review?
Assess prudency and efficiency of direct costs	• Is the base year cost prudent and efficient? • Have one-off and non-recurrent costs been removed? • Are proposed step changes reasonable? • Are proposed escalation rates and efficiency gains
Assess prudency and efficiency of non-direct costs	• Is the base year cost base prudent and efficient? • Would costs be reasonably incurred by a stand-alone irrigation business? • Are costs allocated to service contracts appropriately? • Are proposed step changes & escalation rates reasonable?
Comparison of proposed costs and QCA's alternate costs	• Develop alternate estimates at relevant cost category level. • Determine materiality of difference between proposed costs and QCA's alternate estimates. • If difference is material, substitute proposed cost.

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Direct operations & maintenance costs

- Base year costs
  - Difficulties with November 2018 proposed base year costs due to issue with direct charging of labour costs to irrigation service contracts (did not appear to be fully accounted for), and budgeted not actual costs.
  - June 2019 proposed costs were provided too late into the review, and this data was budgeted not actual costs.
  - We developed alternate base year costs using historical costs, adjusted for direct charging issue and change in Sunwater's cost allocation of light vehicles from non-direct (local area support costs) to direct O&M.
  - Historical costs (2012-13 to 2017-18) generally prudent and efficient
  - However 2016-17 and 2017-18 impacted by under-charging of labour to service contracts (AECOM assessed that average labour utilisation should be 88% rather than 83%)

Direct O&M – Barker Barambah WSS

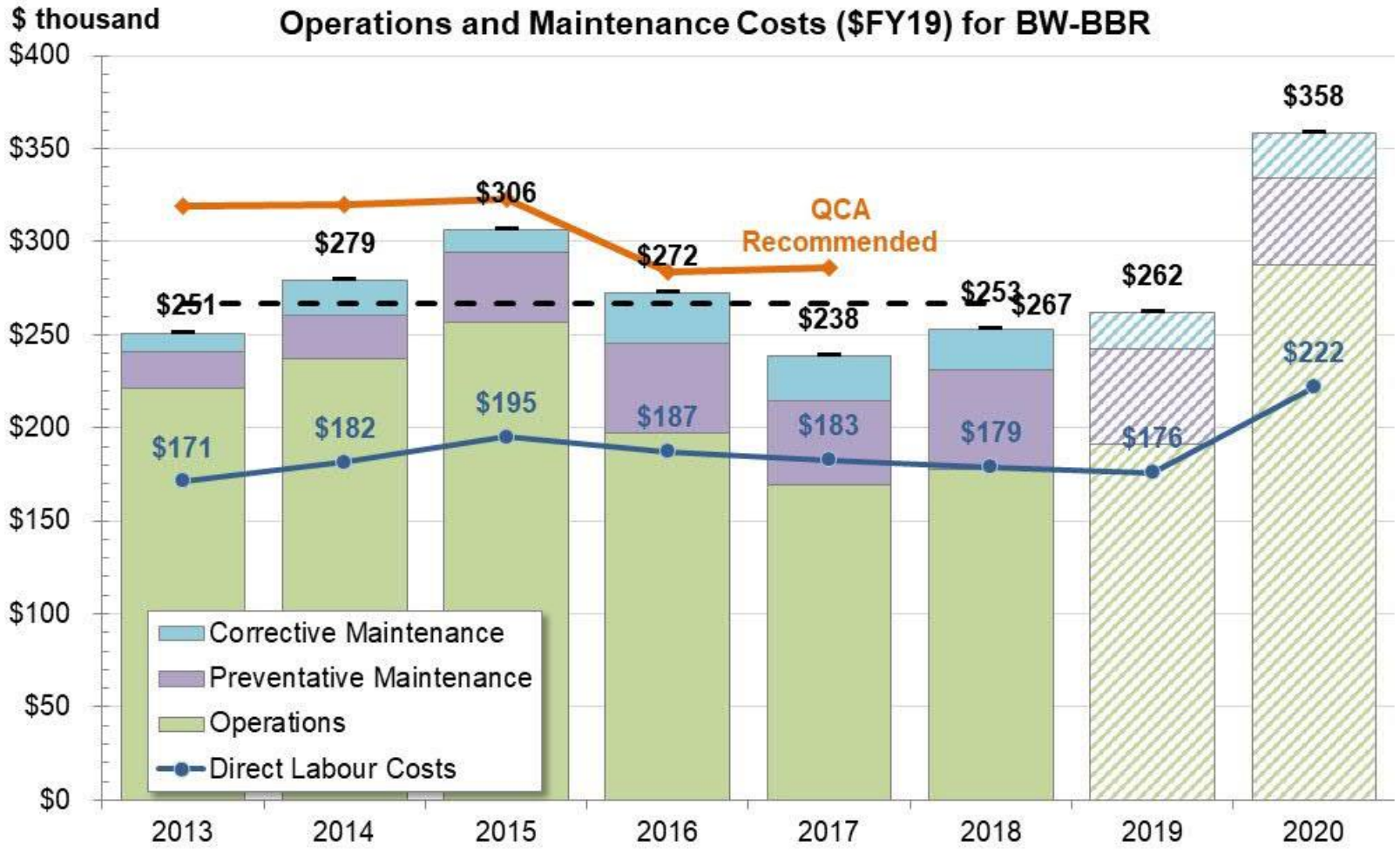
Base year costs 15% higher compared to November 2018 submission:

- We have:
  - averaged historical costs at scheme level to address year-on-year variability (reducing base year cost)
  - corrected historical costs for under-charging (increasing base year cost)
  - transferred fleet costs to direct O&M (increasing base year cost)

Base year costs 16% lower compared to June 2019 submission:

  - While Sunwater has attributed its higher base year costs (as compared to its most recent actuals) to under-charging and transferred fleet costs, we have insufficient justification for the level of increase at the time of the draft report.

Direct O&M – Barker Barambah bulk WSS



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Direct O&M – Boyne River and Tarong WSS

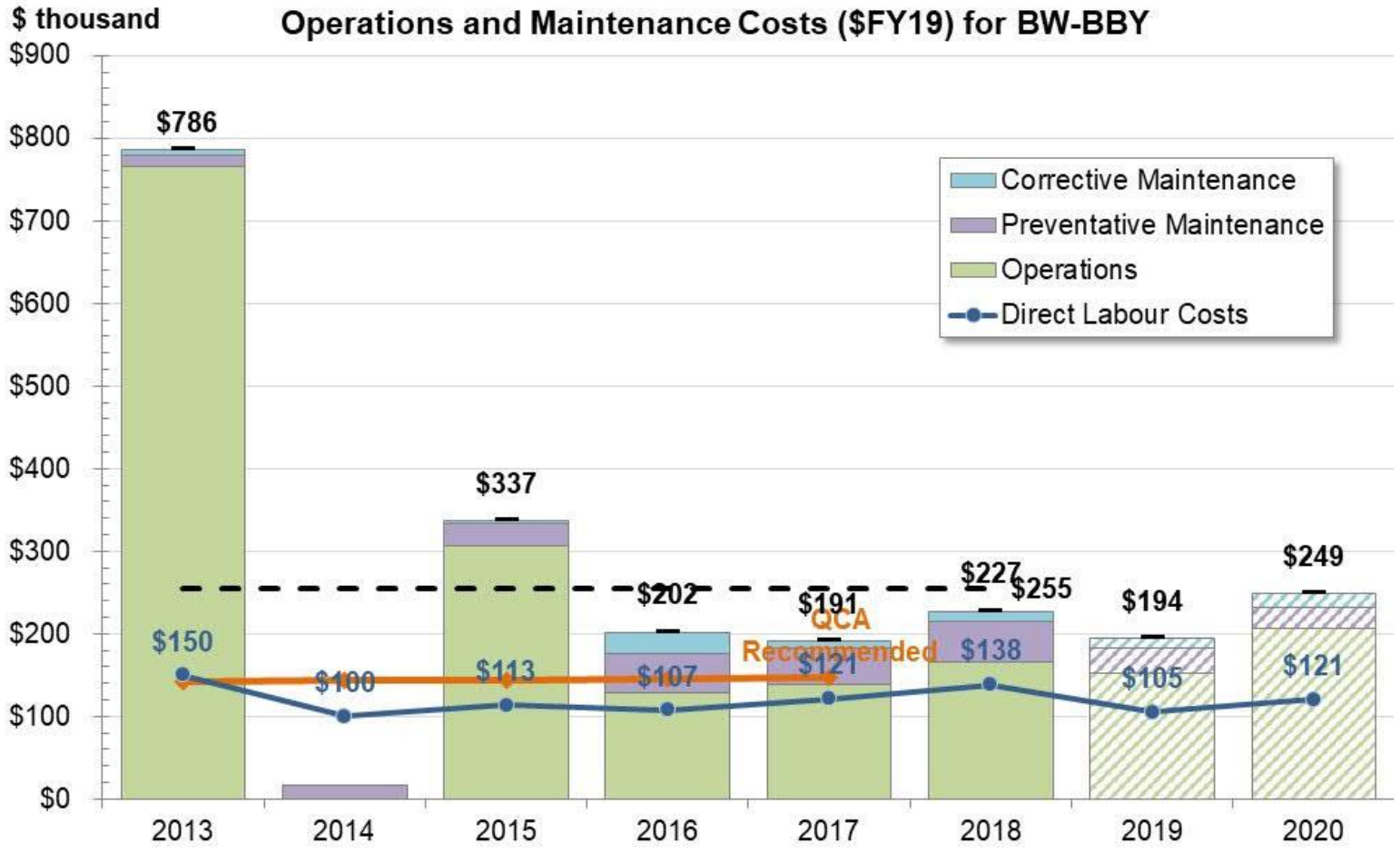
Base year costs 28% higher compared to November 2018 submission:

- We have:
  - averaged historical costs at scheme level to address year-on-year variability
  - adjusted for under-charging + fleet costs (increasing base year cost)
  - made adjustments to average historical costs if required (e.g. change in operations, new technology, one-off abnormal costs, efficiency gains)
  - for this scheme, the long-term average was impacted by abnormal cost items in 2012–13 and 2013–14. Costs in 2012–13 were more than triple the six-year average due to legal costs related to progressing Sunwater's claim for flood damage to Boondooma Dam. Expenditure in 2013–14 was lower than average due to the reversal of a component of the provision for legal costs in 2012–13.

Base year costs broadly equal to June 2019 submission:

- we have accepted Sunwater's revised estimates as these are more consistent with recent historical expenditure.

Direct O&M – Boyne River and Tarong



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Electricity cost pass-through mechanism

- Sunwater submitted proposal with in-principle support from QFF
- The QCA welcomes stakeholder submissions on the proposal
- Mechanism involves following steps:
  - **Step 1**: remove electricity costs from Part B/D tariffs
  - **Step 2**: calculate fixed and variable electricity charges – the fixed charge to be added back to Part A/C water charges; the variable charge to be treated as a standalone charge independent of Part B/D water charges
  - **Step 3**: in May each year, compare revenue received (from fixed and variable electricity charges) with actual electricity costs and announce any discount/surcharge to the variable electricity charge for the next FY
  - **Step 4**: publish information on energy usage and targets in NSPs.
  - **Step 5**: where targets are not met, customers could request a prudency and efficiency review of electricity pass through costs

Electricity cost pass through mechanism

- Sunwater has proposed three options for the structure of electricity charges:
  - **Option 1**: the charge is fully volumetric (based on 5 years of historical data on electricity and water use and Sunwater's assessment of the best available electricity tariffs)
  - **Option 2**: the charge includes a fixed component (calculated to reflect the extent to which total electricity costs have varied with water use over the last five years)
  - **Option 3**: the fixed component is calculated so that, when applied to the last five years of actual data, the revenue Sunwater receives is at least equal to the actual cost of electricity
- The QCA will assess Sunwater's proposal taking into account customer feedback including:
  - The extent of buy-in from the customer base
  - Any changes to the mechanism proposed by customers

Insurance

- Base year costs
  - Competitive procurement processes and reasonable level of coverage
  - Have accepted June 2019 revised costs – key driver is higher market rates due to a change in asset risk assessment
- Escalation over price path
  - Have escalated base year costs by CPI over the price path

Non-direct opex

- Base year costs
  - Assessed 2017-18 as appropriate base year
  - AECOM adjusted these for under-charging issue and changes to cost allocation methodology from 2017-18 to 2019-20 (e.g. fleet costs).
  - For corporate support, reduced 2017-18 cost base for projected reductions in some cost centres (Finance, Legal, reduced rent). Did not incorporate budgeted cost increases in some cost centres.
- Step change in base year costs
  - Accepted June 2019 revised IGEM costs as these are a new regulatory obligation on Sunwater

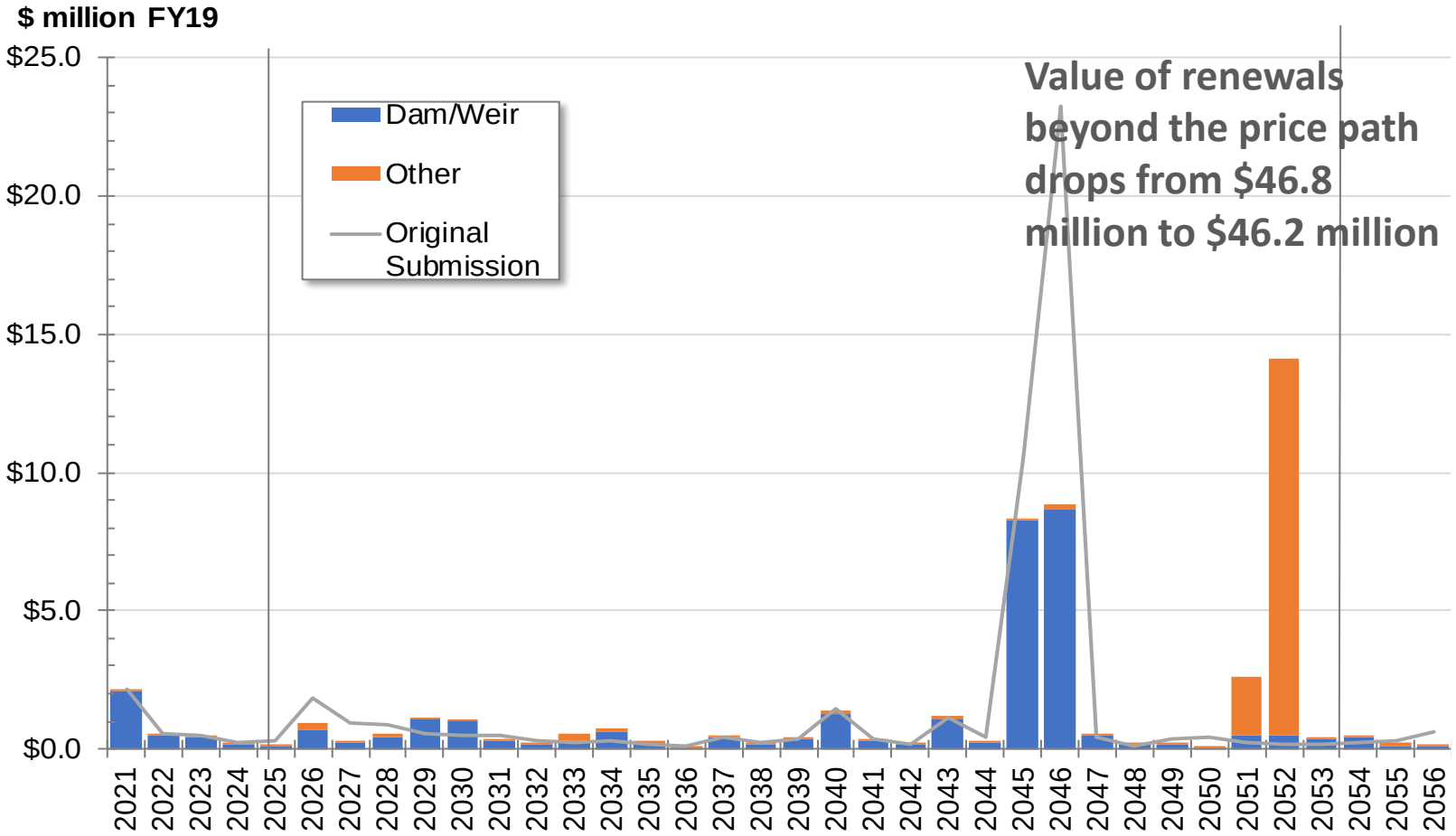
Renewals expenditure

- Have identified improvements in asset management and planning:
  - Better inspection and maintenance regimes
  - The use of modern equivalent replacement values
  - Consistent guidelines for options analysis
- Recommend a reduction of 7.3% in historical renewals relative to November 2018 submission of $104.9 million
- Also excluded flood repair costs (net of insurance revenues) if insurance claim has not been finalised – amounts to $0.3 million in Barker Barambah WSS and $36.1 million in Boyne River and Tarong WSS.
- QCA's 30 year renewals profile is 29.5% lower than Sunwater's November 2018 submission of $1.8 billion, due mainly to change in timing of forecast renewals.

Timing of renewals expenditure

- AECOM recommended Sunwater develop asset specific decay curves to improve renewals forecasts
  - Currently assumes all assets fail at same rate - e.g. all assets (regardless of type) will require replacement by the end of their service life
  - In practice failure rates will differ depending on asset type
- AECOM estimated the impact of better planning using industry standard decay curve
  - Best practice requires assets to be maintained in *state of good repair*
  - Estimate that by uniformly extending asset lives by 10% assets could still be maintained in state of good repair – condition rating of assets remain in acceptable range after asset life extension
- Estimate is conservative as we do not have complete data on, e.g., asset condition ratings

Forecast renewals for Barker Barambah bulk WSS assuming 10% increase in useful life ($2018-19, millions)



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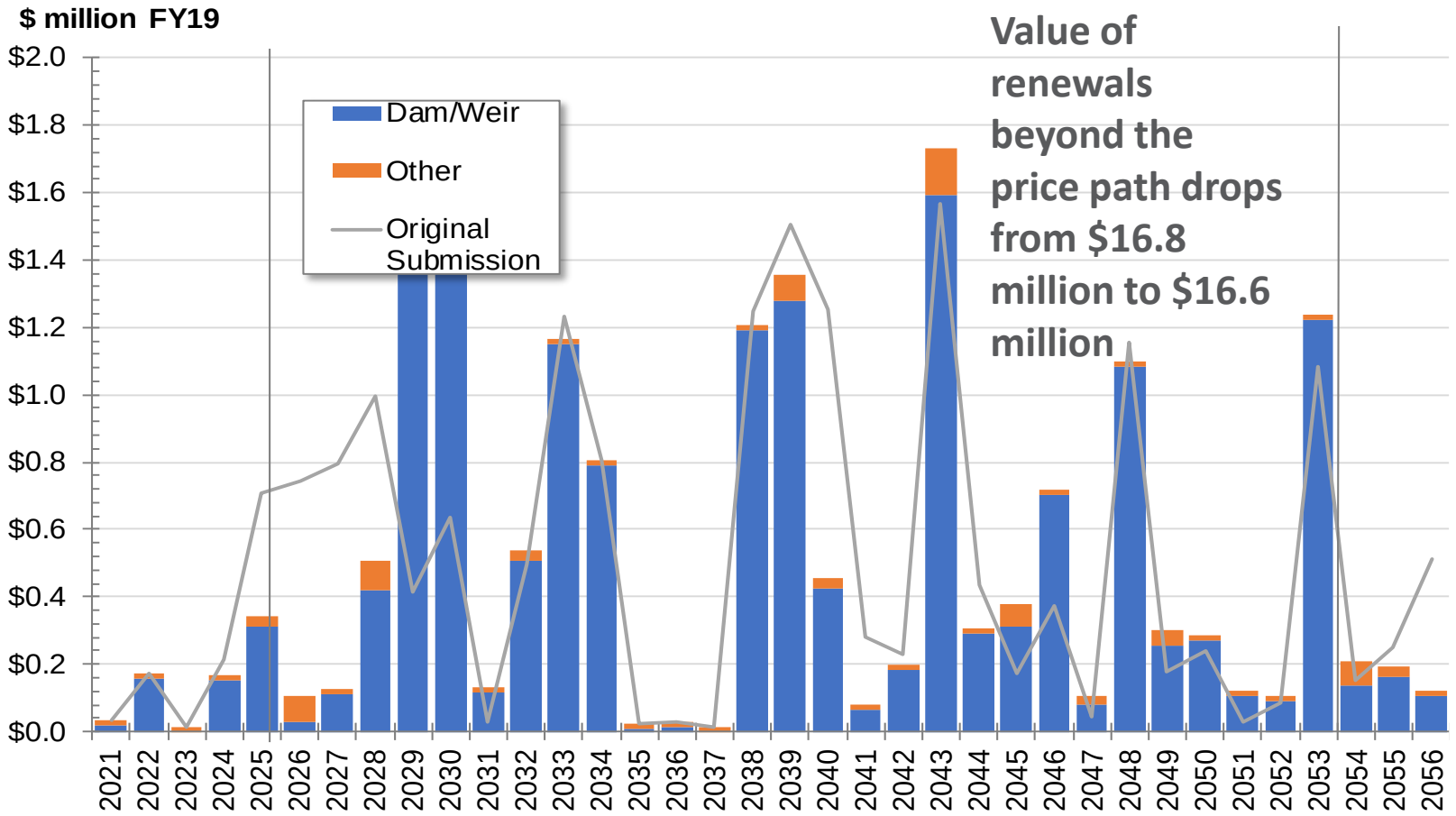
Forecast renewals for Boyne River and Tarong bulk WSS assuming 10% increase in useful life ($2018-19, millions)



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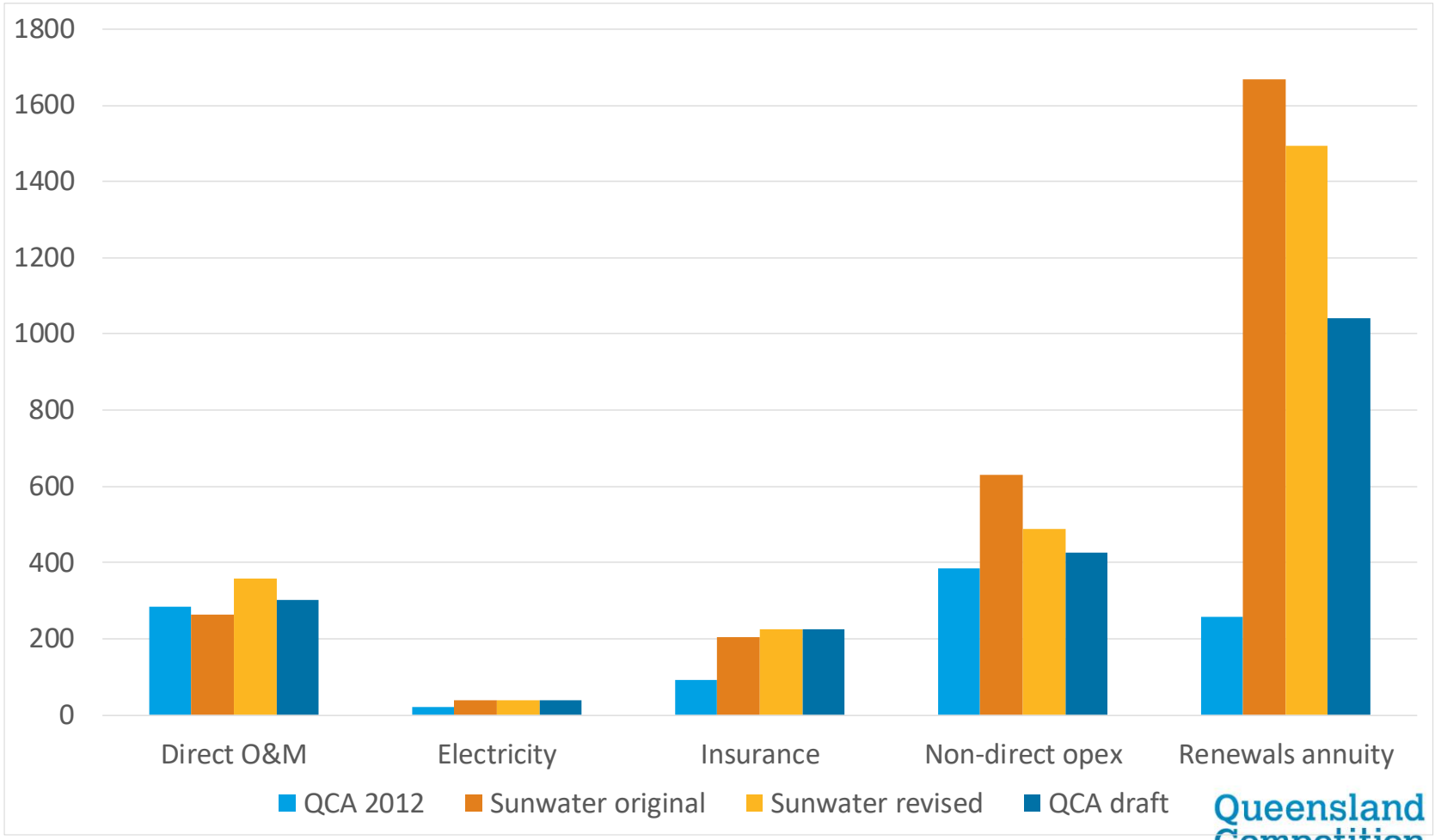
Allowable costs

Barker Barambah WSS – base year costs ($'000, $2018-19)



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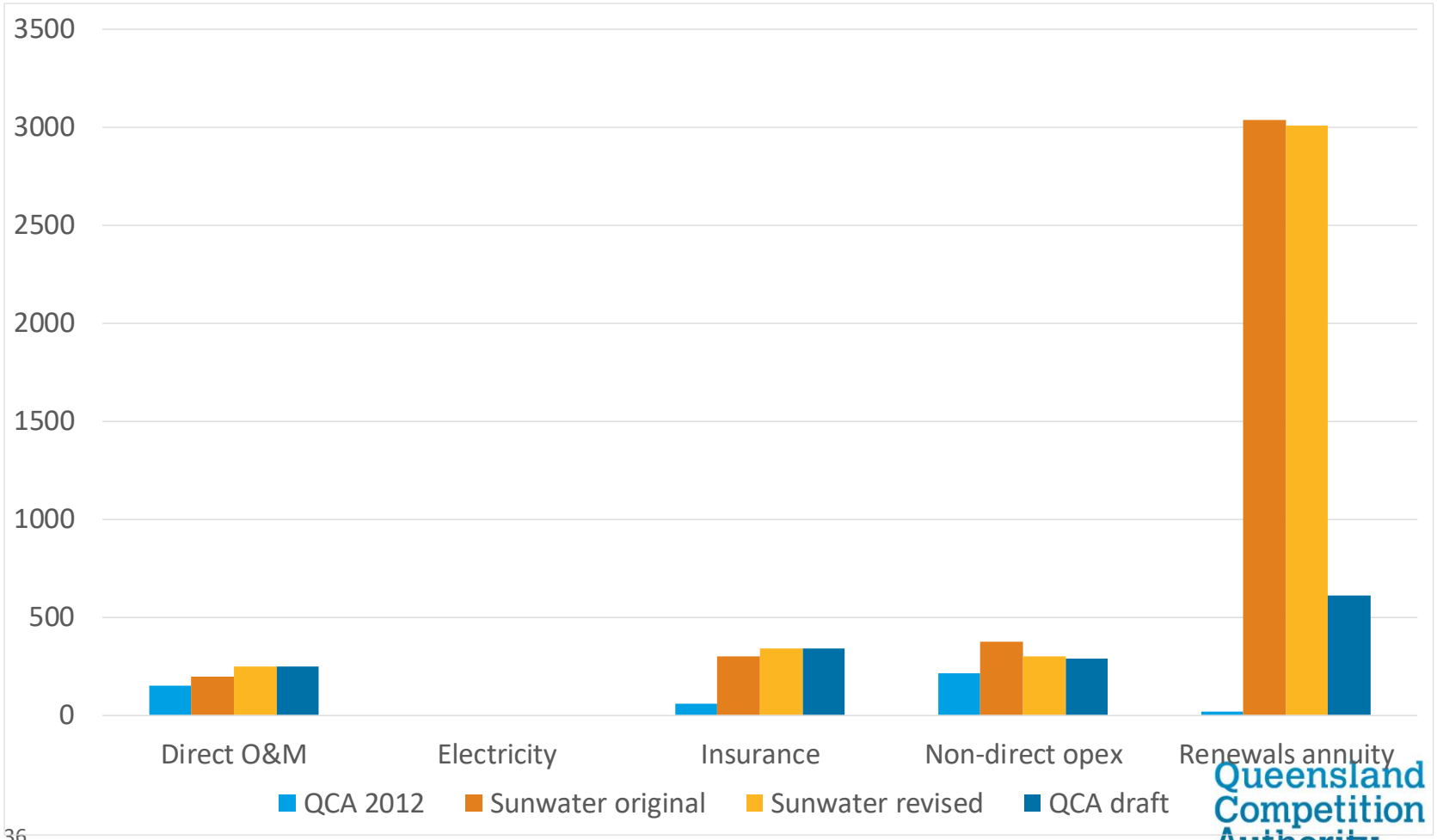
Allowable costs

Boyne River and Tarong WSS – base year opex ($'000, $2018-19)



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Tariff structure (fixed and volumetric prices)

- In determining the appropriate tariff structure, we need to have regard to fixed and variable nature of the underlying costs.
- Fixed/variable split from 2012 review is appropriate starting point.
- Propose to allocate 20 per cent of direct operations and maintenance costs to variable costs.
- For schemes where pumping costs are directly related to water usage, we have assigned fixed/variable split based on fixed/variable nature of underlying electricity tariff components.

Cost component	Sunwater proposed	QCA draft
Operations & maintenance	10	20
Electricity pumping costs	100	Scheme-specific
Other electricity costs	100	-
Non-direct costs	10	-
Renewals annuity	-	-
Dam safety upgrade capex	-	-

Tariff structure (fixed and volumetric prices)

- The QCA acknowledges concerns raised by Barker Barambah irrigators about the price of water in periods of drought.
- We consider that any relief from fixed (Part A) prices during a drought is a matter more appropriately determined by the Queensland Government.
- Drought assistance provided by the Queensland and Australian governments generally encompasses a range of measures and any relief from Part A charges needs to be considered in that context.
- In addition, there are limits to the extent we can address this issue by rebalancing tariffs:
  - The recommended fixed price is required to be no lower than the existing 2019-20 fixed price, and is required to increase by $2.38/ML water allocation entitlement (WAE) plus inflation if the existing fixed price is below the cost-reflective fixed price.

Cost allocation (medium/high priority)

- Reassessed allocation of bulk WSS costs, particularly in light of new compliance costs (IGEM and dam safety upgrade capex)
- Components of fixed operations costs that are asset-related should be allocated using HUF, as this takes into account the differential in benefits received by each priority group.

Cost component	Bulk allocation	Distribution allocation
Operations	50% HUF/50% WAE	WAE
Electricity (fixed)	HUF	WAE
Insurance	HUF	WAE
IGEM costs	HUF	WAE
Maintenance	HUF	WAE
Renewals annuity	HUF	WAE
Dam safety upgrade capex	HUF	WAE
Variable costs	Usage (per ML)	Usage (per ML)

Cost-reflective prices 2020-24 ($/ML)

	Actual 2019-20	2020-21	2021-22	2022-23	2023-24
Barker Barambah - River					
Part A	**25.93**	50.68	51.88	53.11	54.37
Part B	**4.60**	4.25	4.35	4.46	4.56
Barker Barambah – Redgate Relift					
Part A	**25.93**	50.93	52.14	53.37	54.64
Part B	**22.56**	52.73	53.98	55.26	56.57
Boyne River and Tarong					
Part A	**28.58**	10.10	10.34	10.59	10.84
Part B	**1.77**	2.14	2.19	2.24	2.29

QCA recommended prices

Key changes from previous review:

- Fixed prices to be derived independent of the changes in volumetric prices.
- Fixed bulk (Part A) price for distribution customers no more than cost-reflective.

Government pricing principles:

- QCA's recommended prices transition to cost-reflective prices.
- Tariff split should have regard to fixed and variable nature of underlying costs:
  - Fixed prices (separately assessed for Part A, and Part A + C where relevant)

Existing (2019-20) fixed price	New (2020-24) fixed prices
Above efficient costs	Held constant*
Equal efficient costs	Indexed by inflation
Below efficient costs	2019-20 price + inflation + $2.38/ML ($2020-21)

* Except Part A for distribution system customers, which should be reduced to cost-reflective.

  - Volumetric prices (Part B and Part D): have regard to cost-reflective immediately, considering less than cost-reflective to moderate bill impacts.

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QCA recommended prices

We have sought to recommend prices that transition gradually to lower bound costs, as this will give users sufficient time to adjust.

Above lower bound prices:

- Fixed price maintained in nominal terms until this cost base is reached.
- Existing volumetric price > cost-reflective → reduce to cost-reflective
- Existing volumetric price < cost-reflective → increase by inflation only.

Below lower bound prices:

- Fixed price transitioned to cost-reflective by $2.38/ML ($2020-21) of WAE (plus inflation).
- Existing volumetric price > cost-reflective → reduce to cost-reflective
- Existing volumetric price < cost-reflective → cost-reflective, except where this would lead to total (fixed + volumetric) price increase well above $2.38/ML of WAE plus inflation.

Recommended prices 2020-24 ($/ML)

	Actual 2019-20	2020-21	2021-22	2022-23	2023-24
Barker Barambah - River					
Part A	**25.93**	28.92	32.05	35.30	38.69
Part B	**4.60**	4.25	4.35	4.46	4.56
Barker Barambah – Redgate Relift					
Part A	**25.93**	28.92	32.05	35.30	38.69
Part B	**22.56**	23.09	23.64	24.20	24.78
Boyne River and Tarong					
Part A	**28.58**	28.58	28.58	28.58	28.58
Part B	**1.77**	1.81	1.85	1.90	1.94

Sunwater's access charge proposal

- Sunwater has worked with QFF to develop the proposal and has advised that QFF has provided conditional support for it
- Not assessed in our draft report, as the supplementary submission was provided too late for us to give all stakeholders an adequate opportunity to comment on the proposal
- Have released an issues paper on the access charge proposal in conjunction with our draft report

Sunwater's access charge proposal

- Sunwater has proposed:
  - access charge revenues would be offset by reductions in fixed (Part A) prices
  - customers whose behaviours contribute to Sunwater reducing its customer administration costs would be entitled to a discount on the access charge
  - fixed administrative costs that could be recovered include billing, water accounting, water sharing, call centre, ROL compliance, account management etc
  - Sunwater supplied underlying costing information associated with customer management at a state–wide level, indicating a 2018–19 cost reflective fixed access charge of $950.

Sunwater's access charge proposal

- Do you support an access charge?
- If an access charge was to be introduced, do you think it should be based on Sunwater-wide costs and customer account numbers?
- Or should it based on the costs and customer account numbers for the irrigation sector?
- How to decide if a scheme has an access charge (customer vote? majority of customers?)

Next steps

Milestone	Date
Draft report released for consultation	9 September 2019
QCA community workshops	September and October 2019
Submissions due on draft report & issues paper	4 November 2019
Final report provided to the Government	31 January 2020
Final report released	Early February 2020

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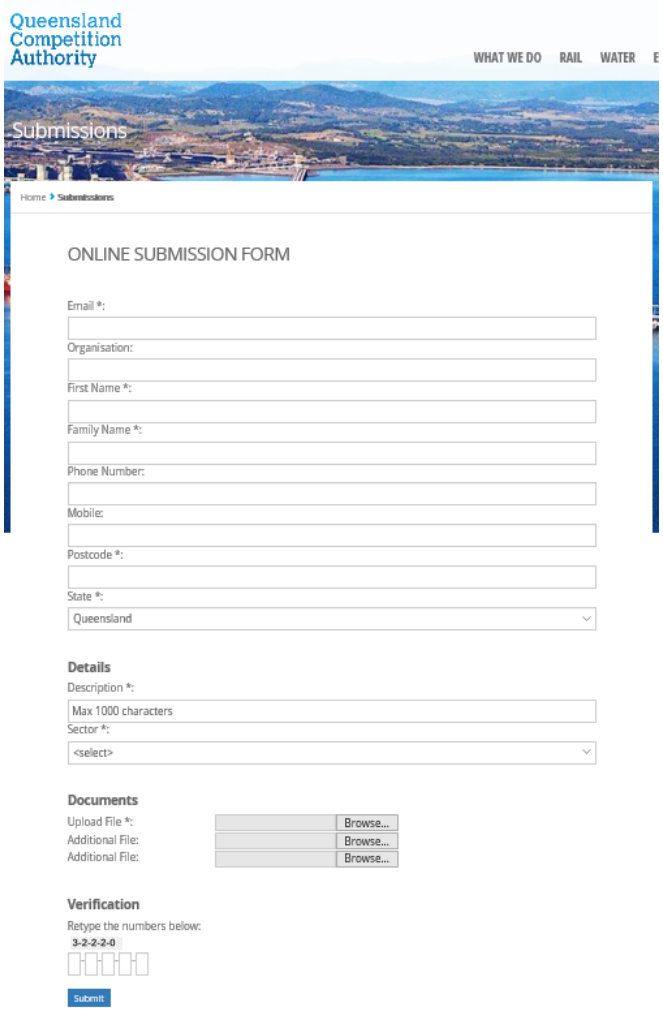
How to make a submission

- Online submission form at www.qca.org.au/submissions
- Or by post:
  QCA, GPO Box 2257, Brisbane Q 4001
- Submissions are encouraged, considered and addressed
- No need to make separate submissions on the draft report & the access charge issues paper – can make a single submission on both if preferred
- Transparency – submissions will be published



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Questions?

Level 27, 145 Ann Street,
Brisbane Q 4000
GPO Box 2257,
Brisbane Q 4001
Tel (07) 3222 0555
www.qca.org.au