IPART

Independent Pricing and Regulatory Tribunal
New South Wales

REVIEW OF PRICES FOR HUNTER WATER CORPORATION

FROM 1 JULY 2020

Final Report

June 2020

Agenda

- Overview
- Prices
- Bill impacts and financeability
- Expenditure
- WACC and asset lives
- Other decisions

Overview

- Key themes in 2020 water price reviews
- Hunter Water 2020 price review – at a glance
- Matters which IPART considers

Key themes in 2020 water price reviews

Prices and bills

From 1 July 2020, bills for water, wastewater stormwater and related services will fall in the Hunter and Greater Sydney regions

Encourage customers to use less water

Give customers greater control over their bills by increasing usage charges and reducing service charges in all periods, promoting water conservation

Introduced drought and non-drought pricing

Increased expenditure

Significant increase in capital investment to meet growth, build drought resilience, and maintain or improve service standards and environmental performance

Improving water planning processes

Our regulatory framework will support any additional investment, provided it is efficient, which strengthens drought resilience in the Hunter and Greater Sydney regions

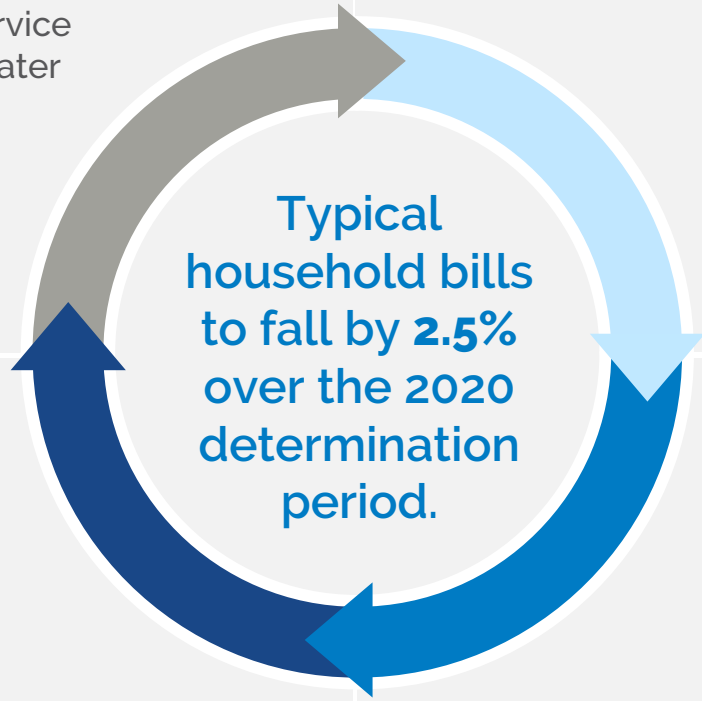
Hunter Water 2020 price review – at a glance

Encouraging water conservation

- Dynamic water usage price that increases during drought
- Higher water usage charge and lower water service charge rewards customers for reducing their water usage
- Phase out discounts for large non-residential users of water
- Support for recycled water initiatives

Efficient expenditure allowance

- Our decision is lower than Hunter Water's proposal, but higher than 2016 allowance:
  - Opex is 10.4% higher compared to the 2016 allowance, and 5.9% higher than actuals
  - Capex is 64.2% higher compared to the 2016 allowance, and 31.2% higher than actuals
- This will help maintain assets and the service levels they deliver, avoid service interruptions or future higher costs from asset failure, and enable the delivery of better environmental outcomes



Form of regulation

- 4-year determination period
- DVAM to return $10.1 million to customers
- Maintain efficiency carryover mechanism to encourage utility to deliver efficiencies
- Comprehensive review of our regulatory framework before our next review of Hunter Water's prices

Uncertainty from COVID-19

- No continuing efficiency adjustment for 2020-21
- Adjusted working capital allowance as customers may take longer to pay their bills
- DVAM available to address a material decline in water sales due to the impacts of COVID-19

- We will account for differences between our allowance and the efficient level of capex incurred over the 2020 determination period, at the next price review

Matters for IPART to consider

In setting prices, IPART is required to have regard to the matters specified under section 15 of the IPART Act

- What are the costs?
- Are customers protected from abuses of monopoly power?
- Is there an appropriate return on assets?
- What is the effect on general price inflation?
- What are the social impacts of our prices?
- What is the impact of our prices on quality, reliability and safety standards?
- Has efficiency improved?
- Do the prices promote environmentally sustainable development?
- What is the impact of our prices on the finances of the utility?
- What is the impact of our prices on contractors etc. of the utility?
- What is the impact of our prices on demand management and least cost planning?
- Do our prices promote competition?

Prices

- Dynamic pricing approach for water usage charges – how it works and advantages of this approach
- Comparison of current prices, Hunter Water's proposed and IPART decisions on prices

Dynamic water usage price

WHAT

Lower fixed service charge and dynamic water usage price (non-drought and drought conditions)

WHY

- Send appropriate price signals to customers in times of drought
- More cost reflective of the additional costs that Hunter Water incurs during drought
- Non-drought usage price is still based on the cost of water supply augmentation (long run marginal cost)

HOW

- The drought price will start 31 days after water storage levels fall below **60%** (the 'on' trigger), and remain in place until 31 days after water storage levels rise above **70%** (the 'off' trigger)
- Price uplift enables the recovery of increases in operating expenditure during drought, and foregone water sales during periods of water restrictions

$2.37

FINAL

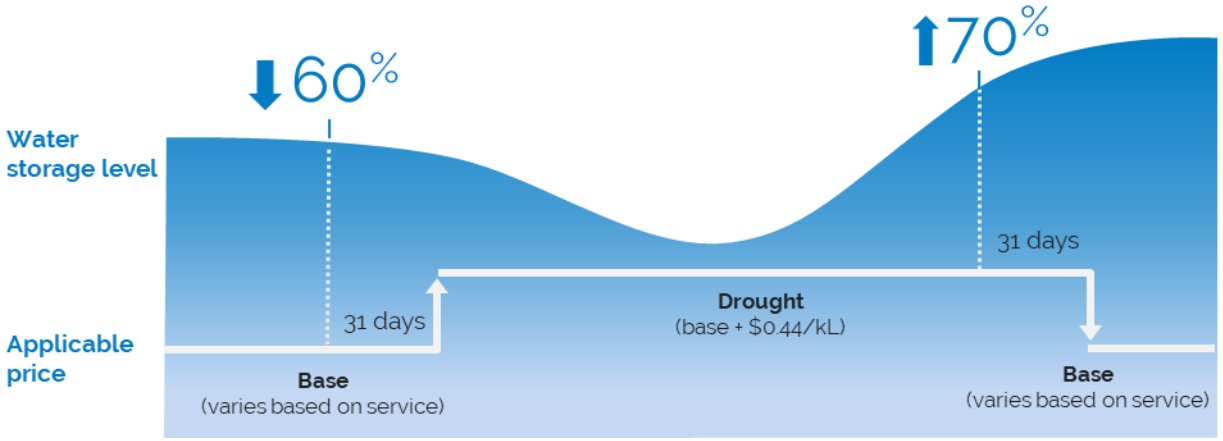
Current water usage price/kL

$2.46

New 'non-drought' price/kL (2020-21)

$2.90

New 'drought' price/kL (2020-21)



Our approach to dynamic water usage pricing

A dynamic water usage pricing approach:

- Responds to climate uncertainty – ensures customers only pay the increased cost of supplying water in drought conditions when needed. Non-drought usage price is based on the 'average' long-term costs of supplying water (LRMC).
- Sends a clear message to customers about the need to change behaviour and conserve water when it is most scarce, without locking in higher prices when dams are full.
- Is simple to implement for all water users, including non-residential customers. All customers face the same signal to conserve water.
- Does not distinguish what constitutes 'essential' and 'non essential' water usage. Recognises that the cost to produce water is not influenced by the end use of that water.
- If we pass through drought costs via the fixed service charge, rather than the usage charge, the service charge would be around $108 (compared to $24.26 per year under our decision).

We considered stakeholder views on an Inclining Block Tariff

What is an Inclining Block Tariff (IBT)?

Under an IBT customers pay a higher water usage charge for water consumption above a certain 'essential' level.

Stakeholders such as the Public Interest Advocacy Centre have suggested that households who consume less water should face a lower per unit price.

An IBT will hurt large households and is difficult to apply

Large low income families will be worse off under an IBT, given their higher essential usage.

Renters with high water usage could see larger and more persistent bill increases under an IBT.

An IBT is difficult to apply to non-residential customers, which include the highest water users.

An IBT penalises customers outside of drought

Hunter Water's costs are higher during drought, while its water sales are lower.

Our drought pricing encourages all customers to conserve water when it is most scarce, without locking in higher prices when dams are full.

An IBT is less cost reflective

At all times, one of the price tiers under an IBT would be too low or too high, meaning that some customers would be paying not enough or other customers would be paying too much for each kL of water supplied to them.

An IBT would provide less incentive for smaller households to conserve water and penalise large households.

Water prices

- Usage charge will increase from $2.37/kL in 2019-20 ($2019-20) to $2.46/kL in 2020-21 ($2020-21)
  - This brings it more in line with the estimated long run marginal costs of supply and gives customers greater bill control
  - This will increase by 1% (in real terms) in each year of the 2020 determination period
- Service charge will decrease by 75.8% from $100.40 in 2019-20 ($2019-20) to $24.26 in 2020-21 ($2020-21)
  - This will remain constant (in real terms) over the 2020 determination period
- Location-based discounts for large users will be phased-out as these historic discounts are not cost-reflective

Water charges for 2020 determination period

	2019-20	2020-21	2021-22	2022-23	2023-24	Change 2019-20 to 2023-24
	($2019-20)	($2020-21)				
Usage ($/kL)						
Base	2.37	2.46	2.49	2.51	2.54	7.2%
Drought price	-	2.90	2.93	2.95	2.98	-
Service ($/yr)						
Houses, apartments and 20mm meter stand-alone	100.40	24.26	24.26	24.26	24.26	-75.8%
Other (25mm meter equivalent)	156.89	37.91	37.91	37.91	37.91	-75.8%

Wastewater prices

- Maintain deemed wastewater discharge of 120 kL per year for residential customers
- Continue the transition of wastewater service charges for apartments to align with houses at the rate of 2.5% per year
- Wastewater usage charges for non-residential customers will remain constant (in real terms) over the 2020 determination period
- Remove the deemed discharge allowance for non-residential customers, and instead apply usage charge to all estimated wastewater discharged

Wastewater charges for 2020 determination period

	2019-20	2020-21	2021-22	2022-23	2023-24	Change 2019-20 to 2023-24
	($2019-20)	($2020-21)				
Residential ($/yr)						
Service – houses	649.28	694.43	694.43	694.43	694.43	7.0%
Service – apartments	535.66	590.26	607.62	624.98	642.34	19.9%
Non-residential						
Usage ($/kL)	0.67	0.68	0.68	0.68	0.68	1.5%
Service – small customers (20mm meter stand-alone, $/yr)	758.51	817.10	817.10	817.10	817.10	7.7%
Service – other (25mm meter equivalent, $/yr)	1,185.18	1,276.72	1,276.72	1,276.72	1,276.72	7.7%

Stormwater prices

- Around 30% of Hunter Water's customers also pay stormwater charges
- Prices will rise by **7.2%** over the 2020 determination period due to increased levels of capital expenditure to improve the integrity of the stormwater network
- Stormwater pricing is related in part to the amount of impervious surface on a property, therefore the prices are related to land area

Stormwater charges for 2020 determination period

	2019-20	2020-21	2021-22	2022-23	2023-24	Change 2019-20 to 2023-24
	($2019-20)	($2020-21)				
Residential ($/yr)						
Houses	79.63	85.35	85.35	85.35	85.35	7.2%
Apartments	29.47	31.58	31.58	31.58	31.58	7.2%
Non-residential ($/yr)						
Small (≤1,000m^2) or low impact	79.63	85.35	85.35	85.35	85.35	7.2%
Medium (1,001 to 10,000m^2)	260.08	278.75	278.75	278.75	278.75	7.2%
Large (10,001 to 45,000m^2)	1,654.10	1,772.82	1,772.82	1,772.82	1,772.82	7.2%
Very large (>45,000m^2)	5,255.48	5,632.68	5,632.68	5,632.68	5,632.68	7.2%

Discretionary expenditure

- We have set prices to recover the costs of 'discretionary' projects
- Discretionary expenditure is incurred when a utility invests in projects that provide services or achieve outcomes that go beyond service standards or environmental obligations
- We developed a framework to assess projects, which emphasises customers' willingness to pay
- Our decision is to accept Hunter Water's proposed projects:
  - **$11.3 million** to improve the amenity of stormwater assets
  - **$6.0 million** to irrigate public spaces with recycled water
- Costs of the discretionary projects to be recovered from residential customers through an annual **$1.70 per property charge**
- Outcomes-focused output measures to ensure Hunter Water is accountable to customers

Other prices

Trade waste

We accepted most of Hunter Water's proposed changes to the pricing structures for sewered and tankered customers. However, we have deferred implementation for one year ie, the new price structure will take effect in 2021-22.

Some trade waste customers will experience significant increases under these changes. We consider that the changes, while significant, are reasonable, as the new prices are more cost-reflective. The one year delay in implementation will give these customers some time to look at ways of reducing their trade waste prices through mitigating or managing their trade waste discharges.

Miscellaneous and ancillary charges

We have accepted Hunter Water's proposed miscellaneous and ancillary charges.

Dishonoured and declined payment fees

Hunter Water uses a single fee for all dishonoured or declined payments.

We have specified a fee of $28.46 ($2020-21) to apply from 1 July 2020.

Bill impacts

- Residential customers
- Non-residential customers
- Financeability test

Summary of impacts

Customers' bill impact

Typical household bills to fall by 2.5% over the 2020 determination period.

Service standards

Prices are set to recover efficient costs of Hunter Water's service standard obligations.

Financial viability

We did not identify a financeability concern for Hunter Water that needs to be addressed in this review.

NSW Gov't Consolidated Fund

A $1 decrease in pre-tax profit of Hunter Water will result in a loss of revenue to the NSW's Consolidated Fund of $0.49.

General inflation

The impact of Hunter Water's services on general inflation is negligible.

Environment

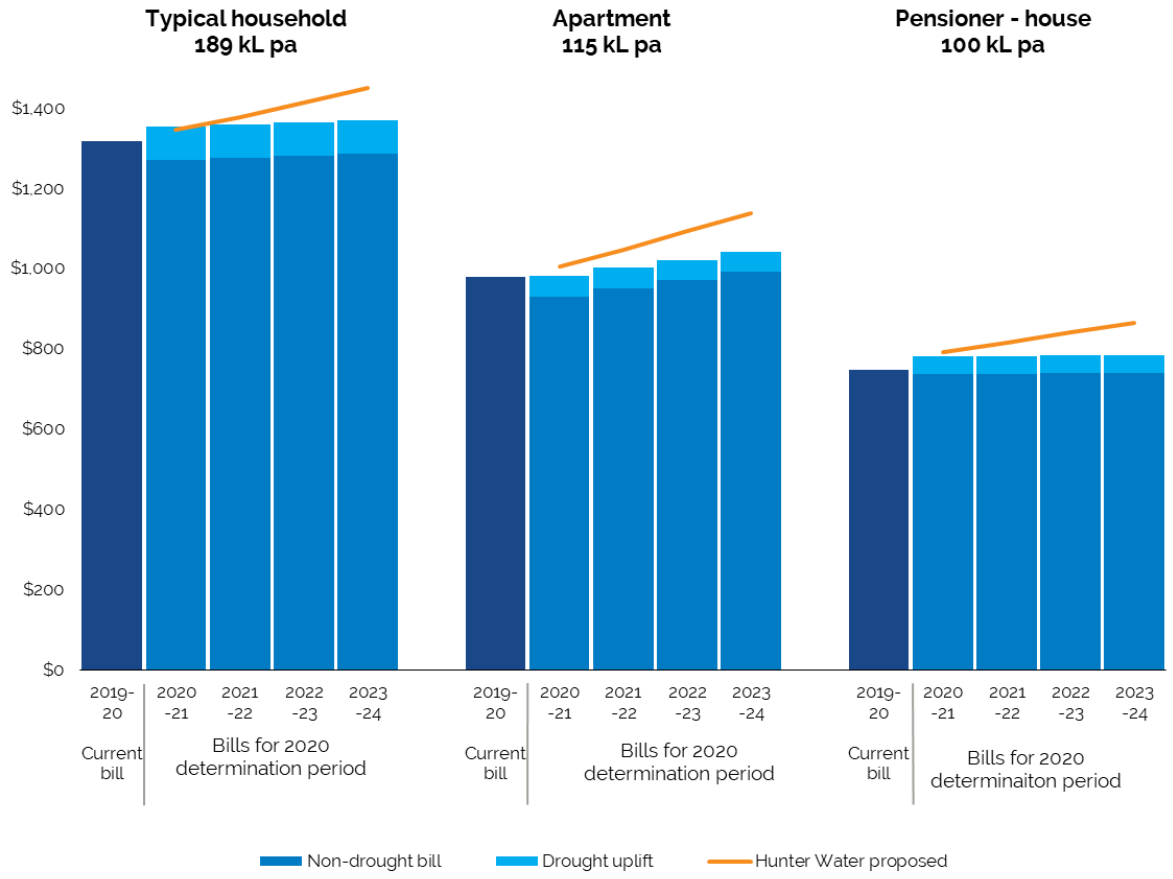
Prices are set to recover efficient costs of Hunter Water's environmental obligations.

Bill impacts on residential customers

Over the 2020 determination period:

- For a typical customer in a house, bills will **decrease** by 2.5% under non-drought prices, and **increase** by 3.8% with drought pricing.
- For a typical customer in an apartment, bills will **increase** by 1.3% under non-drought prices, and 6.5% with drought pricing.
- For a typical pensioner (in a house), bills will **decrease** by 1.0% under non-drought prices, and **increase** by 4.9% with drought pricing.

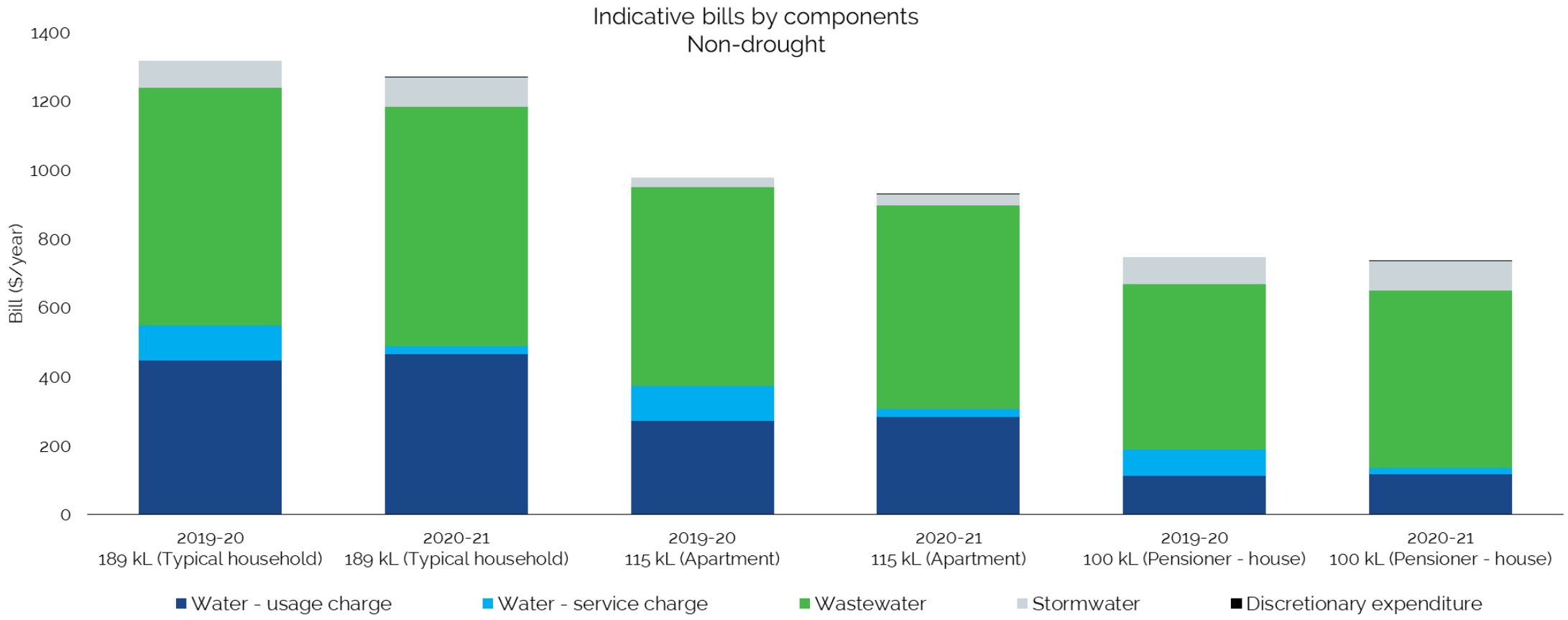
Bill impacts in drought will be moderated by reduced water consumption. Using 2020-21 prices, a **15.2%** reduction in water usage would fully offset the bill impact of drought pricing.



Note: Current (2019-20) bill in $2019-20, and bills for 2020 determination period in $2020-21.

Bill impacts on residential customers

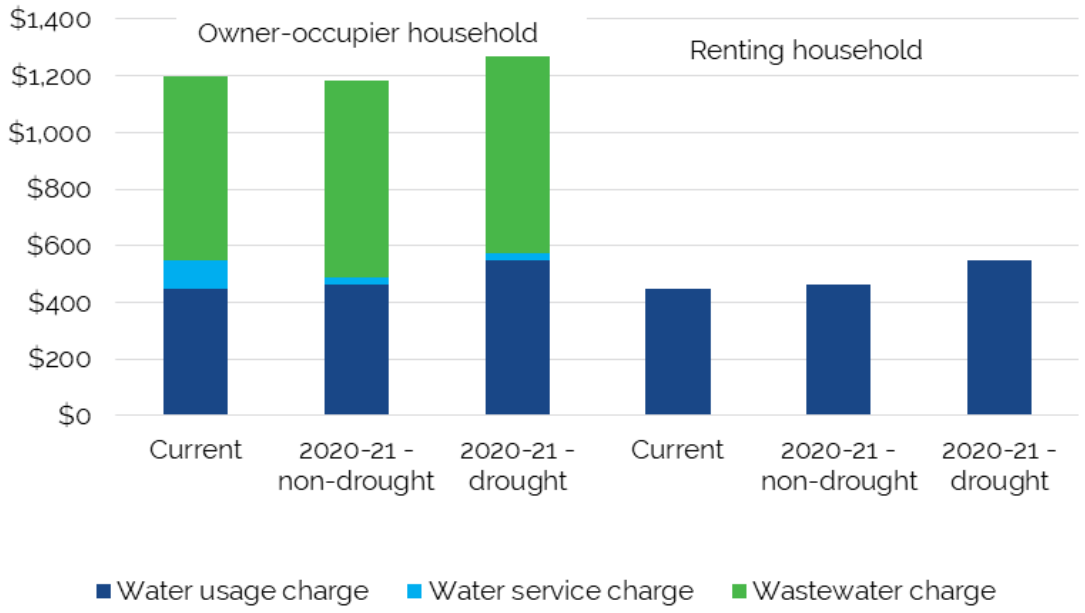
Residential bills will be lower for many customers for the first year of the 2020 determination period under non-drought prices.



Bill impacts on renting households

- Under both drought and non-drought conditions, a typical renting household would continue to pay lower water bills than owner-occupier households.
- We are asking all Hunter Water customers to pay the same water usage charges and same increases in charges under drought conditions.
- The price is more cost reflective, and consistent with the 'user pays' principle.
- Hunter Water has various ways to assist households having difficulty paying their bills. For more information, please visit Hunter Water's website: https://www.hunterwater.com.au

Estimated bill for renting customers using 189kL/year, under various scenarios ($2020-21)



Customers will have more control over their bills

Indicative reduction in customer bills following usage reduction for 2020-21 (non-drought)

	kL/year	Difference (kL/year)	Bill ($/year)	Reduction in bill ($/year)	% reduction in bill
House (typical)	**189**	**-**	**1,271**	**-**	**-**
30% usage reduction	132	57	1,131	139	11.0%
15% usage reduction	161	28	1,201	70	5.5%
Apartment (typical)	**115**	**-**	**931**	**-**	**-**
30% usage reduction	81	35	846	85	9.1%
15% usage reduction	98	17	888	42	4.6%
Pensioner (house)	**100**	**-**	**737**	**-**	**-**
30% usage reduction	70	30	663	74	10.0%
15% usage reduction	85	15	700	37	5.0%
Pensioner (apartment)	**100**	**-**	**606**	**-**	**-**
30% usage reduction	70	30	532	74	12.2%
15% usage reduction	85	15	569	37	6.1%

Note: Bill includes water, wastewater, stormwater and discretionary charges. Percentage reduction in bill includes inflation to $2020-21.

Bill impacts on non-residential customers

Bill impacts for non-residential customers are varied

- Customers that use less water will experience bills that are lower due to our decision to reduce the water service charge, and charge for estimated wastewater discharges
- Customers that use more water will experience larger percentage bill increases, due to our decision to increase the water usage charge, and wastewater service charge
- Greater impact for some large customers due to removal of location-based discounts

Bill impacts of IPART decisions on prices for a sample of non-residential customers

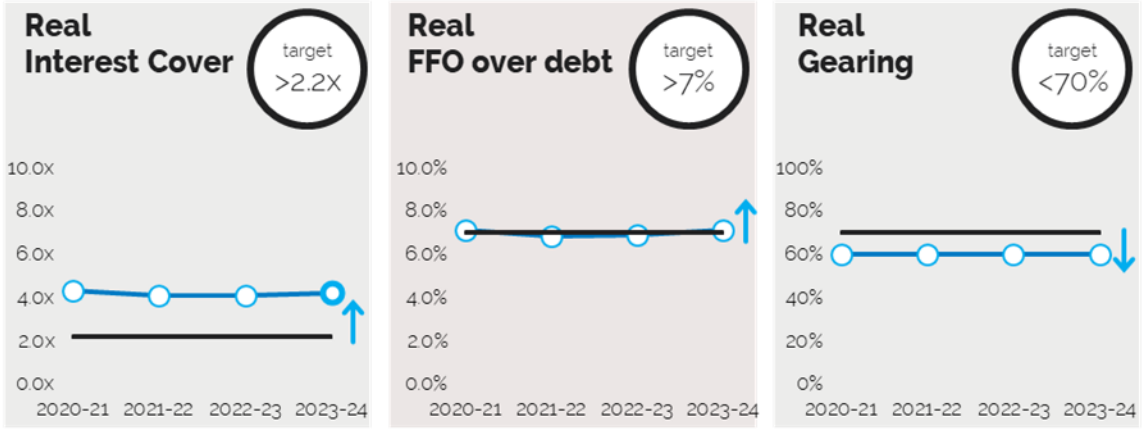
	Assumed water use (kL)	2019-20	2020-21	2023-24	Change 2020-2024
		($2019-20)	($2020-21)		
Small shop – 20mm	100	1,104	1,023	1,031	-7%
Large licensed club	14,000	52,300	53,182	54,302	4%
Regional shopping centre	102,000	320,028	329,885	338,045	6%
Small industrial firm	50	1,065	956	960	-10%
Large industrial firm with location-based charge and non sewer	190,000	391,949	401,662	467,262	19%
Large nursery low discharge factor	5,600	15,411	15,642	16,090	4%

Financeability test

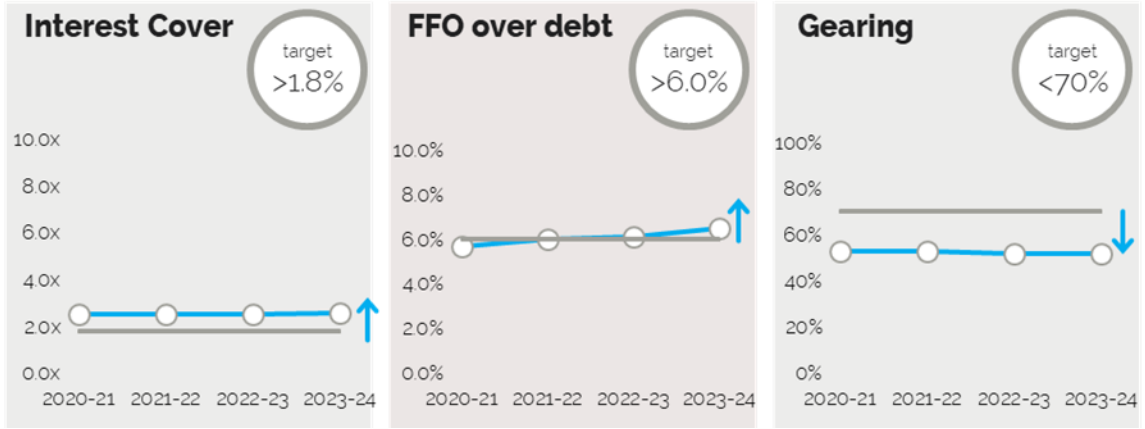
We did not identify a financeability concern

- Hunter Water meets 2 of the 3 ratios for the actual and benchmark tests (ICR and gearing) in all years of the determination period
- It meets the FFO over debt ratio on average over the determination period
- We have regulatory mechanisms that moderate financial risks to Hunter Water
- Transparent and predictable regulatory framework results in revenue predictability

Benchmark Test



Actual Test



Expenditure

- Efficiency adjustment
- Operating expenditure
- Capital expenditure

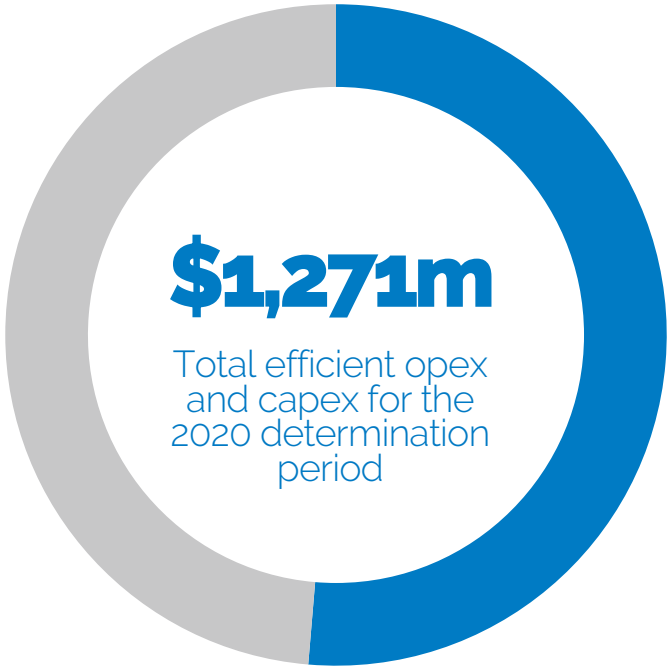
Expenditure decisions

Opex: $618.6m

This is **10.4% higher** than the 2016 allowance, and **5.9% higher** than Hunter Water's actual expenditure for the 2016 determination period. It is **1.3% lower** than Hunter Water's proposed expenditure.

Drought opex

$8.8m per year for additional expenditure during drought conditions. This is **15.3% lower** than Hunter Water's proposed drought expenditure.



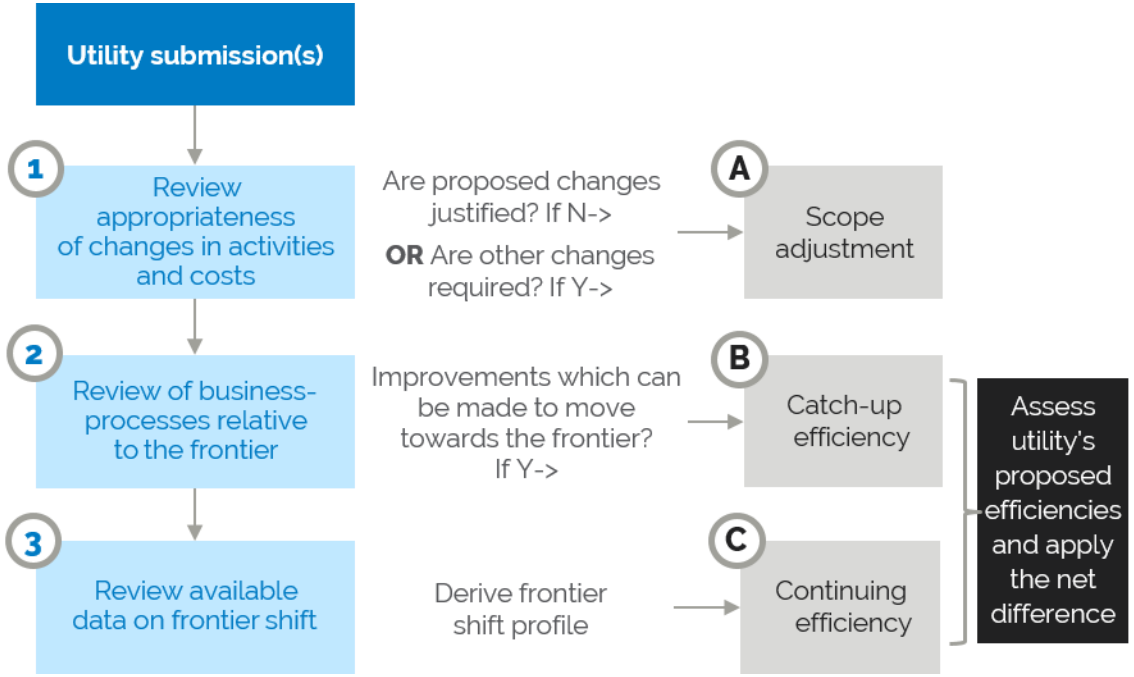
Capex: $652.6m

This is **64.2% higher** than the 2016 allowance, and **31.2% higher** than Hunter Water's actual expenditure for the 2016 determination period. It is **7.6% lower** than Hunter Water's proposed expenditure.

Efficiency adjustment

- Efficient businesses continually innovate and deliver services at least cost to customers
- We applied a continuing efficiency adjustment of **0.8% per year** from 2021-22 to Hunter Water's operating and capital expenditure, based on long-term productivity trends in Australia
- We have not applied the adjustment in Year 1 of the 2020 determination period recognising the impact of COVID-19
- Over the four years of the determination, the average continuing efficiency adjustment we have applied is **0.5%**, which is less than the **0.8%** we proposed in our Draft Report

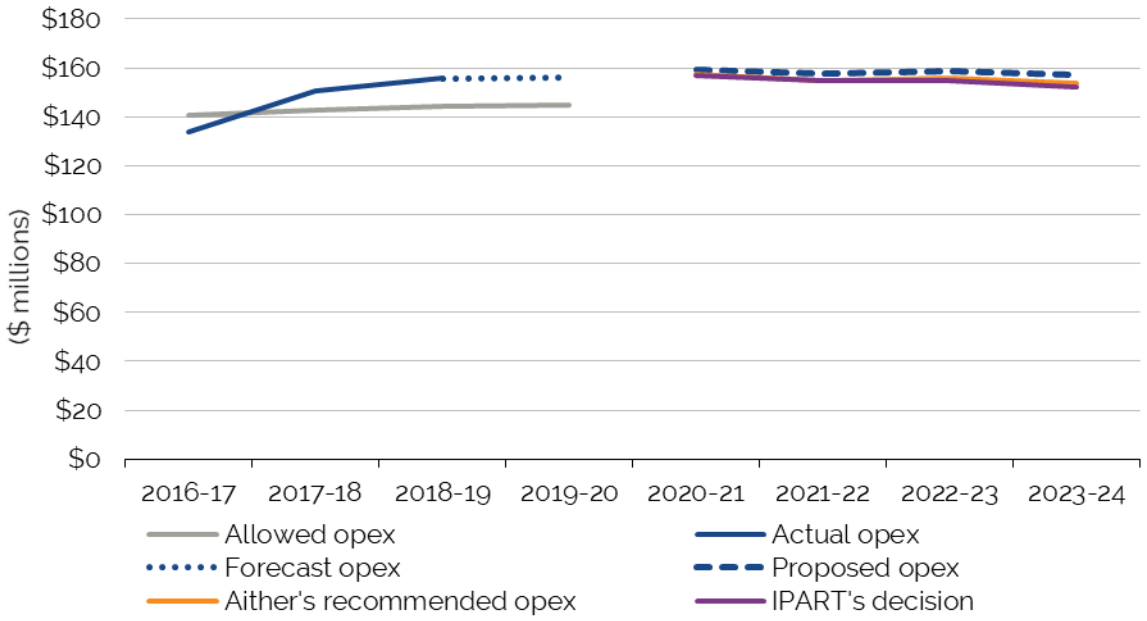
The approach in establishing efficient expenditure



Operating expenditure

- Final decision on operating expenditure is $618.6 million over the 2020 determination period
- This is:
  - $58.1 million (or 10.4%) higher than the 2016 allowance
  - $34.7 million (or 5.9%) higher than Hunter Water's actual expenditure for the 2016 determination period
  - $8.2 million (or 1.3%) lower than Hunter Water's July 2019 proposal
- We will include an additional $8.8 million per year in Hunter Water's operating expenditure during 'drought' periods to recover additional costs including the detailed design work for the proposed Belmont desalination plant
- Continuing efficiency adjustment of $7.5 million (0.8%) from 2021-22 to 2023-24

Final decision compared to historical ($2019-20)



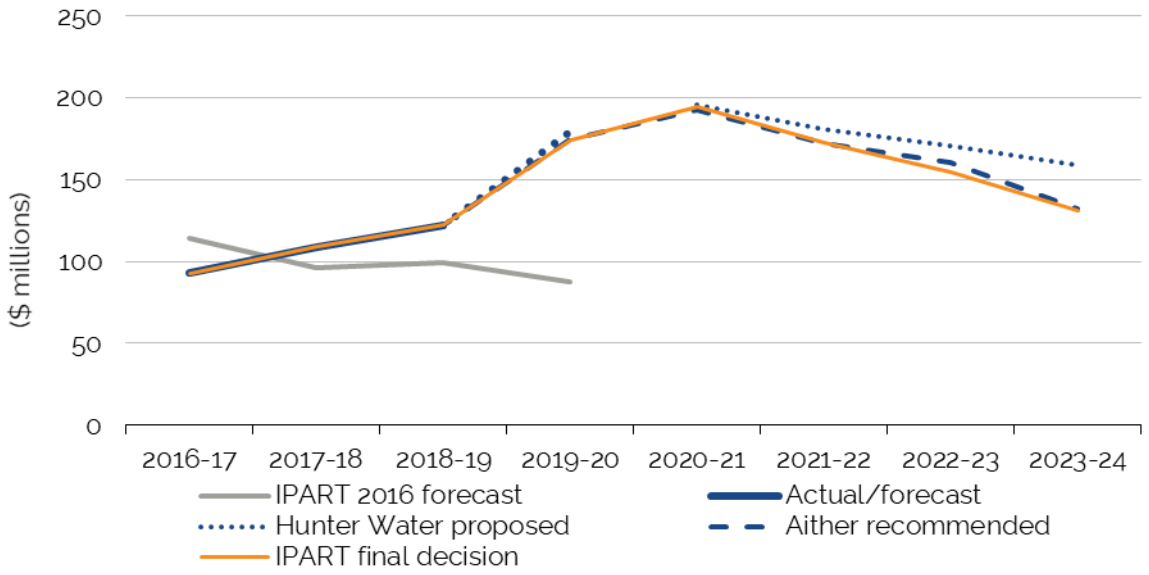
Operating expenditure – IPART's decision

	Total operating expenditure over 4 years ($millions)
Hunter Water's 1 July proposal	**626.8**
Hunter Water's adjustments to proposal	
Energy cost correction	*3.9*
Operating expenditure from amended demand	*1.5*
Deferral of quarterly billing	*-0.9*
IPART adjustments	
Changes to operations	*-0.5*
Corporate labour expenditure	*-4.0*
Amendment for lower demand	*-0.8*
Continuing efficiency adjustment (0.8% per year from year 2)	*-7.5*
IPART decision	**618.6**
Difference	-8.2
Difference (%)	-1.3%

Capital expenditure

- Final decision on capital expenditure is $652.6 million over the 2020 determination period
- This is:
  - $255.2 million (or 64.2%) higher than the 2016 allowance
  - $155.1 million (or 31.2%) higher than Hunter Water's actual expenditure over the 2016 determination period
  - $53.6 million (or 7.6%) lower than Hunter Water proposed in its July 2019 proposal
- Continuing efficiency adjustment of $7.1 million (0.8%) from 2021-22 to 2023-24
- Our final decision is $6.6 million higher than our draft decision, largely due to our decision to include additional expenditure for Hunter Water's Treatment Plant and Chemical Containment Upgrades Program

Final decision compared to historical ($2019-20)



Capital expenditure – IPART's decision

	Total capital expenditure over 4 years ($millions)
Hunter Water's 1 July proposal	**706.2**
IPART adjustments	
Farley wastewater treatment plant upgrade – deferred expenditure	*5.0*
Other wastewater treatment plant upgrades	*-16.2*
Other wastewater asset renewals	*-9.2*
Tradewaste tankered receiving facilities – deferred expenditure	*-5.8*
Water network capacity upgrades	*-5.4*
Minor water structures	*-5.4*
Other projects	*-9.4*
Continuing efficiency adjustment (0.8% per year from year 2)	*-7.1*
IPART decision	**652.6**
Difference	-53.6
Difference (%)	-7.6%

WACC and asset lives

- Weighted average cost of capital (WACC)
- Asset lives

WACC

5.7%

Nominal, post-tax WACC

→ **Inflation expectation** →

3.4%

Real, post-tax WACC

We applied our standard 2018 WACC method with:

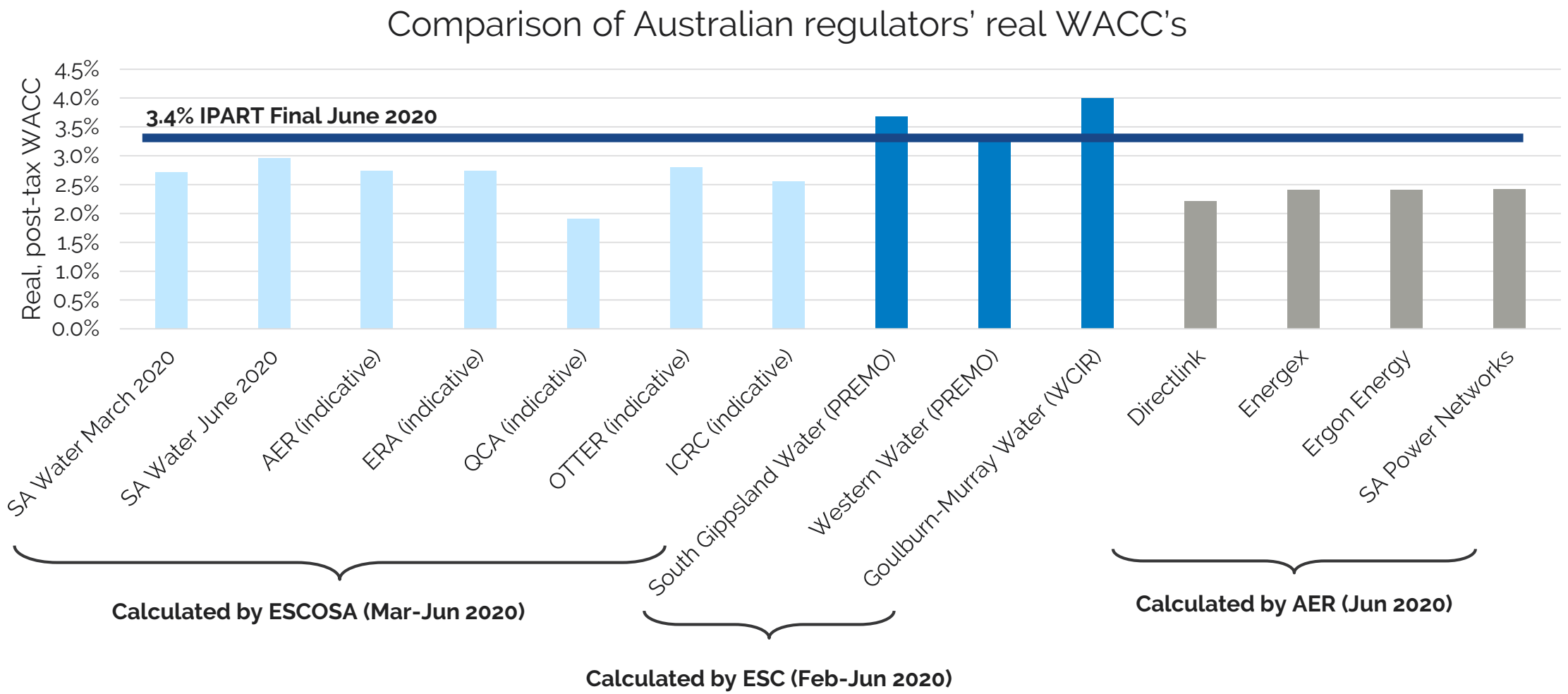
- An estimate of inflation expectations of 2.3%
- Taking the midpoint of current market data and long term averages.

In response to concerns from the water utilities, we found:

- The WACC we set is efficient, is relatively high compared to other regulators, and would allow the utilities to remain financeable
- Maintaining a transparent and objective approach is appropriate, when there is no clearly superior method for estimating inflation expectations
- An adjustment to prices, for the difference between actual and expected inflation, is not appropriate

Adjusting one element of the WACC in isolation is problematic because it ignores the fact that many WACC parameters are interrelated. WACC parameters should be considered together on a holistic and internally consistent basis through periodic WACC reviews.

Our WACC is currently high compared to other jurisdictions



Disaggregation of the RAB and asset lives

- We accepted Hunter Water's proposal to disaggregate its existing four regulatory asset bases (RABs) into 21 smaller RABs.
- Since the Draft Report, we engaged an expert asset valuation consultant, Advisian, to further investigate the appropriate economic lives of Hunter Water's regulated assets. Advisian recommended that we use asset lives generally shorter than those in our Draft Report, but still typically longer than proposed by Hunter Water.
- Our final decision on asset lives leads to a depreciation allowance very close to that proposed by Hunter Water
  - Our decision leads to a depreciation allowance that is **$3.5 million (or 1.2%) lower** than Hunter Water's proposal (our depreciation allowance is $285.0 million and Hunter Water proposed $288.5 million)
  - This depreciation allowance is **84.4% higher** than used to set prices for the previous determination period
  - Asset lives in most RAB sub-categories are longer than those proposed by Hunter Water, but shorter than historical
  - We have set a much shorter asset life (9 years) for the 'Transition' RAB sub-category compared to Hunter Water's proposal of 50 years
  - We have maintained our standard methodology (and the methodology used by other regulators) for weighting asset lives.
- To inform future reviews, we will conduct a review of asset lives, including of the methodology for weighting asset lives, across all the water utilities before our next review of Hunter Water's prices.

Other decisions

- Demand volatility adjustment mechanism (DVAM)
- Location-based pricing

Demand volatility adjustment mechanism (DVAM)

In the 2016 Determination, we decided that at the next price review we would consider "an adjustment to the revenue requirement and prices" to address any over- or under-recovery of revenue due to a material variation between forecast and actual water sales:

- Hunter Water over-recovered by $32.5 million (or 7.2%) over the first three years of the 2016 determination period as a result of higher water sales.
- DVAM returns **$10.1 million** to customers over the 2020 determination period – this represents the incremental 2.2% above the 5% materiality threshold.
- We will retain the DVAM for the 2020 determination period.

Location-based pricing

- Currently, location-based usage price discounts are available to 28 customers for annual water usage above 50,000 kL (In 2018-19, 19 of these used more than 50,000kL)
- These discounts are historical and do not reflect differences in the costs of supplying water
- The discounts reduce usage revenue by around $2.3 million ($2019-20). Without the removal of these discounts, the 20mm water service charge for all customers would be around $3.12 higher in each year of the 2020 determination period.
- Hunter Water proposed phasing out the location-based discount over 5 years.
- Our decision is to commence the phase-out in 2021-22, and transition towards a phase-out by Year 5
  - Customers have an extra year to prepare for higher prices
  - Hunter Water has an opportunity to work with large users to explore alternative avenues for managing water demand.
- All customers will pay the same water usage charge from 2024-25.

Further information

- The IPART website has links to:
  - Final Report and Determination
  - Bill calculator
- Key contacts:
  - Review contact:

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