



Our Ref: TW:W2011

Your Ref:

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26 March 2012

Lyndon Rowe
Economic Regulation Authority
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ATTENTION: LYNDON ROWE – CHAIRMAN

Dear Sir,

RE: INQUIRY INTO THE EFFICIENT COSTS AND TARIFFS OF THE WATER CORPORATION, AQWEST AND THE BUSSELTON WATER BOARD

Thank you for the invitation to respond to both the Issues Paper relating to the abovementioned Inquiry and to provide proposed tariffs for the period 2013/2014 to 2015/2016.

BRIEF BACKGROUND – BUNBURY WATER BOARD (TRADING AS AQWEST)

Established: 1906, State Government Statutory Authority
Annual Revenue: Approx. \$10 million
Debt: Debt free since 1999
Employees: Approx. 36
Function: Water supply services to approx. 17,000 properties in the City of Bunbury
Charges: By a significant amount the lowest priced residential water supplier for average residential consumption in Western Australia as shown below;

	Current 2011/2012 Charges		
	Aqwest	Water Corporation (Eaton / Australind / Dalvellup)	Busselton Water
Supply Fee	\$121.54	\$186.60	\$157.93
Consumption (269kL)	\$185.70	\$361.50	\$221.23
Average Annual Bill	\$307.20	\$548.10	\$379.16

Overall Customer Satisfaction:	2008	94%
	2009	93%
	2010	91%
	2011	97%

Enabling Legislation: Water Boards Act 1904

National Water Commission Urban Performance Reporting: Aqwest is arguably the most efficient water utility in Australia.

Statement of Corporate Intent: Identifies the following four (4) short term directions for the 2011/2012 financial year:

1. Maintain an ongoing focus on Aqwest's core business of providing sustainable high quality water services.
2. Monitor the implementation of the Water Services Legislation Amendment and Repeal Bill. Engage with both Treasury and the Department of Water in the transition of the Board to the Bunbury Water Corporation.
3. Engage with the Economic Regulation Authority (ERA) in regards to obtaining long term sustainable water pricing.
4. Continue to encourage the Department of Health to consult with the local Bunbury community in respect to any plan to potentially add fluoride to the water supply.

RESPONSE TO THE SUMMARY OF ISSUES FOR THIS INQUIRY

SERVICE STANDARDS

Question 1: Question for Water Corporation, Aqwest and Busselton Water: do you have sufficient resources to meet the service and performance standards set out in your operating licences?

Aqwest currently has sufficient resources to meet the service and performance standards set out in its operating licence. Additional resourcing requirements are anticipated to accommodate the eventual introduction of the Water Services Legislation Amendment and Repeal Bill and Water Services Bill. These and other areas that are likely to require additional resources in the future have been included in the financial model.

SERVICE PROVIDERS' TARIFF PROPOSALS

Question 3: Request for Aqwest: please provide, your own proposed revenue requirement and associated tariffs for the period from 1 July 2013 to 30 June 2016, and justification for that revenue and tariffs.

Based on a detailed review of future demand estimates, infrastructure requirements and new obligations, Aqwest has developed a long term forecast of operating and capital expenditure requirements. A description of these expenditure requirements is provided under the 'Capital Expenditure' and 'Operating Expenditure' sections later in this submission.

Based on the expenditure forecasts, Aqwest has determined a total cost of service each year, comprising of operating expenditure, depreciation and a return on assets. In accordance with the recommendations of the Authority's 2009 inquiry, the depreciation and return on assets are based on a regulatory asset base rather than Aqwest's significantly higher statutory asset base.¹ The return on assets is calculated as the value of the regulatory asset base multiplied by the Weighted Average Cost of Capital (WACC). See the 'Rate of Return' section for details of the calculation of the WACC.

Aqwest's proposed tariffs have been determined such that that the total revenue for the organisation exactly recovers the full cost of service. As recommended in the last inquiry, the cost of service has been projected forward for ten years (until 30 June 2023) and the revenue requirement over that period has been 'smoothed' to avoid any significant price shocks from one year to the next.

In determining the future revenue requirements, Aqwest has also included an allowance for the shortfall between the cost of service and revenue from the *current* regulatory period (1 July 2009 to 30 June 2013). The shortfall in the current period reflects the fact that the revenue requirement has lagged costs due to the 'ramp up' of prices over a 10 year period. That is, the smoothed 10 year price path recommended by the Authority for the current regulatory period implied an under-recovery of costs in the first four years and an over-recovery in later years. Aqwest has therefore adjusted the forward looking revenue requirement to allow the shortfall to be recovered over the next 10 years.²

Proposed revenue requirements and the forecast cost of service for the period 1 July 2013 to 30 June 2016 are shown in Table 1. The table demonstrates that the total revenue for each year remains below the cost of service because, as with the last inquiry, the revenue increase has been smoothed over a 10 year period. Aqwest is satisfied that a process of smoothing over 10 years remains appropriate due to the magnitude of the expected price increases , however it is

¹ Aqwest has applied the Initial Capital Base as determined by the Authority for 2008, rolled forward based on actual expenditure (and corresponding depreciation) since that time.

² In practice, the tariff increase for the 10 year period from 1 July 2013 to 30 June 2023 is calculated such that the present value of total revenue equals the present value of the cost of service for the period 1 July 2009 to 30 June 2023.

proposed that any 'smoothing' applied in the next inquiry should not extend beyond 30 June 2023.

Table 1: Proposed revenue requirement for Aqwest

Cost of Service (\$'000 2011/12)	2013/14	2014/15	2015/16
Operating expenditure	6,538.0	6,476.4	6,732.9
Return on Assets	2,971.0	3,218.0	3,266.8
Depreciation	1,369.8	1,488.5	1,590.2
Cost of Service	10,878.8	11,182.9	11,589.9

Revenue (\$'000 2011/12)	2013/14	2014/15	2015/16
Tariff Revenue	8,980.0	9,581.7	10,224.5
Pensioners and Senior's Tariff Discount	-416.2	-444.8	-475.3
Pensioners and Senior's Tariff Rebate	12.3	13.3	14.4
Other Revenue	874.6	829.4	858.0
Total Gross Revenue	9,450.7	9,979.6	10,621.5

Based on the revenue requirements outlined above, Aqwest has determined the customer charges that would be required if all tariffs were increased uniformly. On this basis, Table 2 provides the proposed tariffs for Aqwest customers from 1 June 2013 to 30 June 2016. Note that all tariffs are in current year dollars and will be escalated by the Consumer Price Index (CPI) each year.

Table 2: Proposed tariffs for Aqwest customers (\$ 2011/12)

Service Charges (\$ 2011/12)			
Residential	2013/14	2014/15	2015/16
Residential	136.40	144.62	153.35
Non Residential by meter size			
20 mm	136.40	144.62	153.35
25 mm	213.12	225.97	239.60
40 mm	545.59	578.49	613.38
50 mm	852.48	903.90	958.41
80 mm	2,182.36	2,313.98	2,453.53
100 mm	3,409.93	3,615.59	3,833.64
150 mm	7,672.35	8,135.07	8,625.69
Fire Services by meter size			
25 mm	80.98	85.87	91.05
40 mm	129.32	137.12	145.39
50 mm	161.97	171.74	182.09
100 mm	323.93	343.47	364.18
150 mm	485.90	515.21	546.28
200 mm	647.87	686.94	728.37

Volumetric tariff (\$/kL 2011/12)			
Residential	2013/14	2014/15	2015/16
0 - 150 kL	0.565	0.599	0.635
151 - 350 kL	1.047	1.111	1.178
351 - 500 kL	1.499	1.590	1.686
501 - 700 kL	1.982	2.102	2.228
701 - 1000 kL	1.982	2.102	2.228
Over 1000 kL	2.372	2.515	2.667
Non Residential by tranche			
0 - 1000kL	1.499	1.590	1.686
over 1000kL	1.499	1.590	1.686

A full copy of the model used to derive these revenue requirements and tariffs has been provided to the Authority separately.

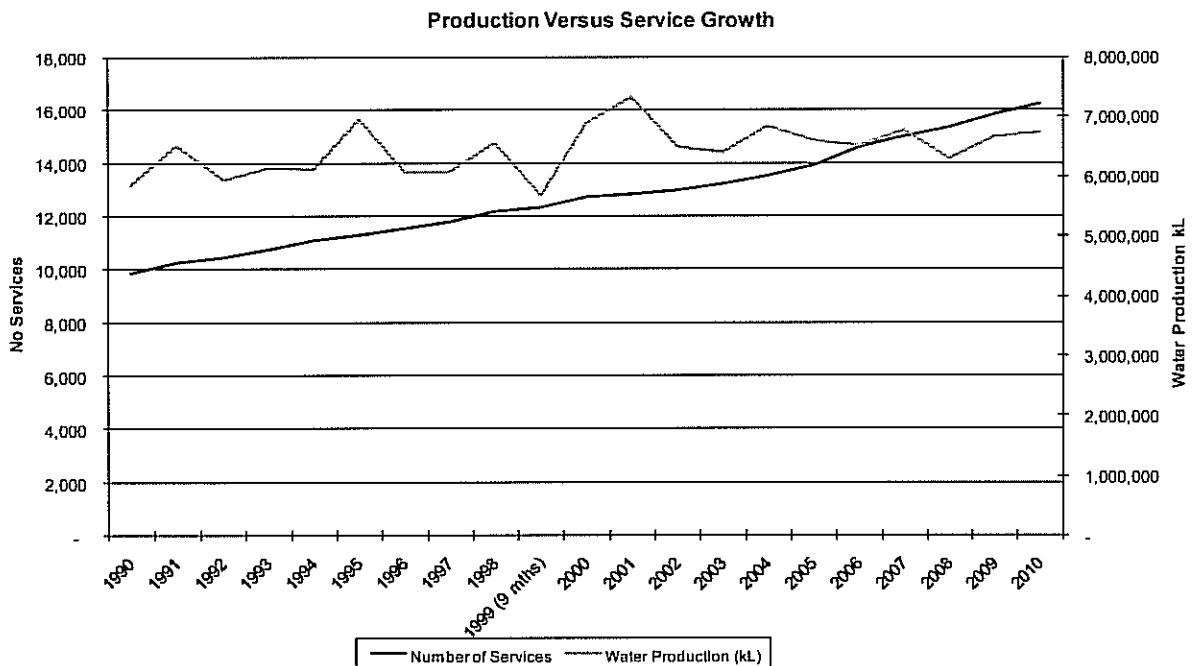
DEMAND PROJECTIONS

Question 4: Request to Aqwest: please provide your demand projections for each of your services including the analysis for why you think these projections are robust

Aqwest’s proposed tariffs have been determined by forecasting static volumetric demand (a zero growth assumption). Water production has virtually remained unchanged over the last thirty years despite customer numbers doubling in that time. This is evidenced in the decline in average domestic consumption per household from 508kL to 269kL over the same period.

The forecast static demand considers the impact of the State Governments’ Water Efficiency measures.

The following chart summarises annual water production and customer growth over the last thirty years.



Aqwest’s proposed tariffs have been determined by forecasting customer growth of 2% per annum (residential, non residential and fire service connections). Historical trend analysis

shows that annual growth has averaged at 2.4% over the last 30 years, with an average of 2.1% from 2007 to 2011.

CAPITAL EXPENDITURE

Question 5: Request to Aqwest: please provide your capital expenditure proposals including the analysis for why you think these proposals are appropriate.

Significant Projects

Aqwest's capital expenditure proposals have been developed in accordance with the Board's key result areas and strategies as documented in the Aqwest Strategic Development Plan.

Aqwest has a long term plan to relocate its water production facilities away from the sensitive fresh/sea water interface of the Yarragadee Aquifer. The construction of the City Waterlink transfer main, and the recent construction of a 4ML storage tank and pump station at Aqwest's Glen Iris site has provided the infrastructure to enable Aqwest to eventually decommission its coastal water treatment plants.

The augmentation of production capability at Robertson and Tech Water Treatment Plants and the inclusion of a Water Treatment Plant facility at the Glen Iris site will be the final phase for this long term strategy. The production bore at Glen Iris has a proven and established high yield capacity. A conceptual design process has commenced for this project. Detailed design work is anticipated to commence in late 2012, with construction completed by 2013/2014.

Aqwest is currently conducting exploratory studies on its reservoir assets and further assessing hazard ratings. Significant operating and capital expenditure is planned to ensure that the hazard rating of these assets is acceptable

NOTE: Aqwest requests the opportunity to revise expenditure levels contained within the calculations for its revenue requirements when more detailed information is available in August 2012.

Capital expenditure forecast

Expenditure by asset type	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000
Water Treatment Plants	3,165	3,285	800	700	4,030	560	3,250	650	300	-	30
Bores & Pumps	50	-	50	350	-	-	-	-	-	-	-
Reservoirs	550	350	-	300	100						
Mains	646	963	842	894	694	751	704	633	643	743	643

Lyndon Rowe, Economic Regulation Authority
 Re: Inquiry into Efficient Costs & Tariffs of the Water Corporation, Aqwest & Busselton Water Board

Expenditure by asset type	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000
Meters	160	163	196	307	311	314	318	321	325	191	195
Office Equipment	277	212	152	274	142	157	272	162	147	212	147
Land	100	-	-	-	-	-	-	-	-	-	-
Buildings	1,000	-	-	-	-	-	-	-	-	-	-
Plant & Equipment	-	-	-	-	-	-	-	1,500	-	-	-
Motor Vehicles	140	300	140	300	140	300	140	300	140	300	140
Tools	15	15	15	15	15	15	15	15	15	15	15
Service Connections	342	342	342	342	342	342	342	342	342	342	342
Business Development	202	202	-	-	-	-	-	-	-	-	-
TOTAL	6,646	5,831	2,537	3,482	5,773	2,439	5,040	3,923	1,912	1,803	1,512

OPERATING EXPENDITURE

Question 7: Request to Aqwest: please provide your operating expenditure efficiency targets, if you consider such a target would be appropriate; if not, please provide measures you intend to put in place to achieve efficiency gains.

Aqwest has long regarded itself as a highly efficient organisation. The point needs to be made, however, that it is relatively easy for an inefficient organization to deliver efficiency gains.

Aqwest’s proposed tariffs have been determined on the basis of recovering underlying operating expenditure that can demonstrate efficiency gains. However, a formal efficiency target has not set for the review period.

Given that Aqwest is a relatively small sized water utility, it faces heightened sensitivity to impacts on underlying operating expenditure from “one off” events or “spikes” in its financial model. Aqwest has excluded the following operating expenses which relate to new levels of service and one off “spikes” in determining base level efficiency gains. These expenses and the efficiency gains for the next five years are demonstrated in the following table:

	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Total Operating Expenditure	5,973,600	6,506,329	6,398,263	6,651,600	6,709,690
Spikes:					
Corporatisation	150,000	150,000	-	-	-
Carbon Tax on Electricity	78,200	78,200	78,200	78,200	78,200
Decommissioning Costs	-	-	150,000	300,000	350,000
Business Development	51,500	346,500	295,000	295,000	295,000
Underlying Operating Expenditure	5,693,900	5,931,629	5,875,063	5,978,400	5,986,490

	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Total Operating Expenditure	5,973,600	6,506,329	6,398,263	6,651,600	6,709,690
Total Customers	18,778	19,154	19,537	19,928	20,326
Underlying Operating Expenditure per property	303	310	301	300	295

In addition, Aqwest is currently experiencing copper pipe failure in its distribution network at a rapidly increasing rate. This is due to a “batch” of copper pipe installed to service connections in the 1980s which is now failing due to its low grade quality. This type of failure was not predicted and has created a “false inefficiency” for a period of time until the material is entirely replaced and the failure rates “normalise” again.

Aqwest continually demonstrates its ongoing efficiency by how well it benchmarks against other water utilities nationally.

Aqwest has also initiated the following measures in its current and forecast operations which produce operational efficiency gains:

Off-Peak Production

Aqwest has invested in a number of initiatives which allow it to take advantage of off peak power tariffs. Aqwest has been able to achieve high off peak power use due to treatment plant automation, resulting in significant cost savings.

Aqwests target for off peak power utilisation was set at > 65% with the following results being achieved over recent years. This target was increased to 70% in 2011/2012.

	Target	2011	2010	2009	2008	2007
Off peak energy use	>65%	75%	71%	71%	70%	68%

Demand Side Curtailment

Aqwest participates in electricity demand side curtailment. This generates a revenue stream which partially offsets electricity costs.

Leak Detection

Aqwest conducts a leak detection program on its water distribution network. This program saves millions of litres of water annually and reduces production costs.

EFFICIENCY OF DEMAND MANAGEMENT ACTIVITIES

Question 9: Request to Aqwest: what demand management activities are you intending to undertake over the review period; please justify why you think this expenditure is efficient.

Aqwest intends to undertake the following demand management activities over the review period;

- Summer Water Conservation campaign
- Sprinkler ban enforcement (2 day and winter)
- Education programs
- Media campaigns

Annual water production levels over the last thirty (30) years have virtually been unchanged. Clearly these measures are effective and / or efficient.

RATE OF RETURN

Question 12: Request to, Aqwest: what rate of return are you proposing to use in the calculation of your revenue requirement?

Aqwest proposes a real pre-tax rate of return of 6.3% for the calculation of revenue requirements.

The proposed rate of return is based on the Weighted Average Cost of Capital, determined using the parameters applied by the Authority during the 2009 pricing inquiry, updated for:

- a risk free rate of 4.06% (significantly lower than the risk free rate applied previously) based on the average 10 Year Australian Government Bond rate for the 20 trading days prior to 17 March 2012;
- an inflation forecast of 2.6% based on the geometric average of the three years inflation forecast in the RBA's Statement on Monetary Policy (February 2012) and a further 7 years at the mid-point of the RBA's long term target range of 2-3%;
- Aqwest was informed by Authority staff that recent internal reviews indicated that it was appropriate to include franking credits at the rate of 25% rather than the previous rate of 65%.

For completeness, the full set of WACC parameters is shown in Table 3.

Table 3: Proposed WACC parameters

Parameter	Value
Nominal Risk Free Rate (R _{fn})	4.06%
Real Risk Free Rate (R _{fr})	1.52%
Inflation Rate (I)	2.50%
Debt Proportion (D)	40.0%
Equity Proportion (E)	60.0%
Debt Risk Premium (D _{rp}) (BBB+)	2.80%
Debt Issuing Cost (Disc)	0.125%
Risk Margin (DR _m)	2.925%
Australian Market Risk Premium (R _p)	6.00%
Equity Beta (B _e)	0.65
Corporate Tax Rate (T)	30%
Franking Credit (g)	25%
Real Pre Tax WACC (WPr)	6.30%

The Authority noted in the Issues Paper that an alternative methodology for revenue calculation might potentially be employed using a post-tax rate of return. As the timing prevented a detailed consideration of the implications of using a post-tax WACC, Aqwest would appreciate the opportunity to further discuss this issue with the Authority prior to the finalisation of the Draft Report.

INFLATION

Question 15: Request to, Aqwest: please provide your inflation projection as well as the reasons for why you have adopted your proposed inflation measure.

Aqwest proposes to use inflation projections developed by State and Commonwealth Government agencies. In particular, the three projections relevant to the calculation of regulatory revenue are:

- in accordance with the Authority's previous guidance, inflation of tariffs will be based on the national Consumer Price Index. Therefore projections used by Aqwest are based on the RBA's forecast of national inflation, which is set out in the Statement on Monetary Policy (February 2012). The RBA forecast indicates that inflation will be 1.75% in 2011/12, 3.25% in 2012/13 and 2.75% in 2013/14. Thereafter we have applied the midpoint of RBA's long term inflation target of 2%-3% per year;
- inflation for operating costs is based on the West Australian Government's 2011/12 Budget Economic and Fiscal Outlook (Budget Paper no. 3). The Budget forecasts

inflation of 3% for 2011/12 and 3.25% for 2012/13 to 2014/15, due to a strengthening of the economy and diminishing of spare capacity. Thereafter we have applied the midpoint of the RBA's long term inflation target of 2%-3% per year. A local, rather than national, estimate of inflation has been utilised to reflect the price pressures specifically affecting Western Australia;

- inflation for capital costs recognises the fact that the cost of construction is expected to rise faster than CPI in the short to medium term. For the purposes of projecting capital costs we have applied the Authority's forecast of the Building Cost Index (BCI), as described in the *Inquiry into the Funding Arrangements of Horizon Power* (18 March 2011). As noted by the Authority at the time, the treatment of capital inflation is not a priority in regulatory modelling as capital expenditure is incurred at nominal prices and (if expenditure is efficient and has been incurred by Horizon Power) added to the regulatory asset base at this nominal or current cost value. Aqwest has therefore utilised the Authority's BCI estimate of 3% per year to inflate capital expenditure in future years.

CARBON PRICE

Question 17: Request to, Aqwest: please provide your carbon cost projections as well as the reasons for why you have adopted these projections.

The effect of the introduction of a carbon tax has been built into Aqwest's proposed tariffs by way of adjusting Aqwest's forecast electricity expenditure. The impact on the cost of electricity is based on information provided from the major supplier to Aqwest, who estimate an increase of approximately 2 cents / kWh to 2.3 cents /kWh.

KEY ISSUES FOR SETTING WATER CHARGES FOR RESIDENTIAL CUSTOMERS

Question 18: Question for interested parties: In determining the level of water usage charges for residential customers, what considerations or assumptions should the Authority take into account regarding, for example:

- a) The long-run or short-run marginal cost of water supply;
- b) The level of security of supply;
- c) The costs and availability of current and future water sources, including externality costs;
- d) The marginal costs of water delivery;
- e) Whether usage charges should be set in inclining blocks, or if there should be a single volumetric charge, and on what basis the charges in each band should be set;
- f) Whether discounts should apply for low volumes of water use;

- g) Whether high prices should apply to water use above a certain level, and if so, what level and what price;
- h) Potential impacts on tenants and large households of any changes in usage charges;
- i) How any changes in charges should be phased in?

a) No comment

b) No comment

c) No comment

d) No comment

e) Aqwest currently has a six tier residential charging scale. This scale rewards those customers who conserve water whilst levying a very modest charge of 50 cents per 1,000 litres for the first 150,000 litres in the consumption year. It is essential that this be retained.

Aqwest utilises an inclining block tariff to discourage high water use and to reward low water users. The upper tier is sufficiently high to act as a genuine disincentive against excessive water use, while the lower tier sends an appropriate message regarding the value of water conservation.

Aqwest's inclining block structure has been successfully utilised over many years and is strongly supported by our customer base. Aqwest proposes to continue with the existing tariff structure, and will achieve any required increases in revenue through a single general price increase across all water tariffs.

f) No, apart from the pensioner and senior discounts.

g) See (e).

h) A small minority (5% approximately) of tenants pay the supply fee. As previously shown Aqwest's charges are the lowest in Western Australia.

i) Unnecessary given the current low charges.

WATER CHARGES FOR RESIDENTIAL CUSTOMERS IN COUNTRY TOWNS

Question 19: Question for interested parties: Do you have any comments on how the uniform tariff policy is applied in the pricing of country residential water services?

Aqwest acknowledges that there is some support amongst customers for residential customers in the South West to pay the same annual water service charges (supply fee). Currently these charges are;

Water Corporation (Eaton / Australind / Dalyellup)	\$186.60
Busselton Water	\$157.93
Aqwest	\$121.54

CONCESSIONS FOR PENSIONERS AND SENIORS

Question 24: Question for interested parties: Do you have any comments on the concessions for pensioners and seniors provided by the Water Corporation, Aqwest and Busselton?

Aqwest provides a rebate to owners and tenants who are holders of a Pensioner or a Senior Card. The rebate applies to water supply fees and water consumption and is assessed on the following basis;

Supply Fee

Pensioners	50% rebate
CSHC* and Seniors	50% rebate
Seniors	25% rebate

* CSHC = Commonwealth Senior Health Card

Water Consumption

Pensioners	50% up to 350kL
Seniors	50% up to 150kL

In conclusion, Aqwest requests the inclusion of some degree of flexibility in the pricing pathway. The opportunity to provide revised tariff requirements during the term of the new pricing pathway needs to become an accepted formalised process. Such flexibility will cater for the scenario where an event(s) transpires during the term of the new pricing pathway that causes a material variance on the operating and capital expenditure levels included in the current submission, for example fluoridation or hydrant ownership. Aqwest requests the regulator be flexible enough to cater for these situations during the pricing pathway, and not leave consideration for them strictly until the next pricing review.

Yours faithfully



ICER