11 September 2007

Mr Paul Baxter
Senior Commissioner
Independent Competition and Regulatory Authority
Level 2, 12 Moore Street
CANBERRA CITY ACT 2600

Dear Mr Baxter

WATER PRICING INQUIRY

As promised, I set out some further comments on Discussion Paper No 3.

However, before doing so, I offer the following observations as to Discussion Papers 1 and 2.

- The "line in the sand" should have been zero for the regulated asset base to recognize that these assets were never funded by ACTEW (or by the ACT Treasury as its self-styled "owner") but, as I mentioned, by ratepayers and purchasers of leaseholds (some of whom are still around and resent being charged again for using what they paid to have built). The Commission would be breaking no "implicit" or explicit contract if its decision were revisited. There can be no rights arising out of injustice or error. (No one worried about implicit contracts when tariffs were cut and the community released from bondage to domestic cartels – why should government-owned infrastructure monopolists be privileged? ACTEW itself could be dissolved with a stroke of the pen and the assets vested in their true economic owners, the ratepayers of Canberra.)

- The perpetual writing up of assets through indexation is incorrect. Future generations of users are the ones to pay the costs of future asset renewals, not today's generation who should only be charged the net unrecouped cost of the assets servicing them here and now. If indexation is to be allowed, it should only be on the basis that either -

    - The indexation amounts are paid into a trust fund and only released for capital works which when so financed are treated as having a zero cost – being pre-paid; or

    - If the Commission insists on the indexation adjustment being available to ACTEW as free cash flow to finance dividends or anything else, it should be

treated as part of ACTEW's return on capital. The present system does nothing to guarantee depreciation allowances or indexation is ploughed back into new investment. On the contrary, Governments of both persuasions have dividend-stripped ACTEW's free cash flow.

- As for a weighted average cost of capital, this method is inherently flawed, since the cost recovery methodology means ACTEW bears little, if any, real risk.

- A better methodology would be to go back to ACTEW's actual cash flows and work out an allowed internal rate of return (IRR) on *actual cash* expended, as in the resource rent tax models. Using actual cash flows would sidestep the flaws of accounting valuations and correspond with the process of real world discounted cash flow analysis for investment decisions. Personally, I rather doubt that a full historical analysis back to 1988 would show there had been *any* net cash investment by ACT Treasury or ACTEW in the system. To paraphrase Adam Smith, most men love to reap where they never sowed, to enclose other people's fields and make people pay again for what was theirs, but no one is under any moral or legal obligation to tolerate or be complicit in concealing such rent-seeking behaviour. The public deserves to see an IRR audit on ACTEW's cash flows back to a zero base in 1988.

Turning to Discussion Paper 3, I offer the following comments:

The structure of water tariffs

The optimal pricing structure for water is a two-part tariff with the price per kilolitre of delivered water being set at short run marginal cost (SRMC) and the fixed costs of the system being covered by a rate on the value of the lands serviced (the value of a serviced block reflects the beneficial externalities of infrastructure availability).

What is absolutely incorrect is an increasing block tariff. Ramsey pricing is a second best approximation to a perfect two-part tariff. To minimise deadweight loss (as far as it can be minimised under a system of differential pricing) the rule is to have diminishing per kl charges as more discretionary usage is involved. Increasing block tariffs, by contrast, *maximise* deadweight loss by penalising discretionary usage. They are a perversion in terms

of economic efficiency. (It is also hard to see any social equity in a system of charges which penalises families with lower per capita consumption than unit dwellers paying less.)

If there is a need to reflect a scarcity price and water, that should be represented by a *uniform* scarcity charge on every kilometre of water consumed. (In fact, however, the scarcity in the ACT is of water *storage* - not of water as such - if the historical figures are even remotely to be relied upon.)

It is also hard to see why there should be a scarcity charge when so much ACT water has been released free of charge to flow downstream to ricegrowers and other users paying less. Even in 2006 water was being released by ACTEW in excess of environmental flow requirements. (I attach a copy of a talk I gave on the subject of water costs.)

Seasonal and daily pricing

In a normal market seasonal pricing is usually eliminated for storable goods by natural competitive market arbitrage. In the case of water monopoly, this result should also be achievable if sufficient storage is built and seasonal or daily or scarcity pricing should not be necessary. Both seasonal and daily pricing are irrelevant to scarcity per se. Any scarcity price for water should reflect the storage levels of water behind dams, not the seasons.

If there is to be a scarcity price applied to water, it should also be charged against environmental flow requirements and debited to the Budget allocation for Environment ACT

so that the community can see how much these flows cost in terms of social decisions on resource allocation.

Use of price as a demand management tool

It is entirely illegitimate to crush demand by arbitrary pricing schemes which have no relation to the value of water or its cost of supply. To do so is to entrench monopoly abuse and is in conflict with ICRC's statutory duties. Using prices to "manage demand" is like the economics of Soviet Russia or post-war rationing in Britain.

ICRC should not consider using prices to manage demand *without considering the role of prices in calling forth supply*. If (and I mean, *if*) there is a need for a scarcity price or surcharge for water in excess of required regulatory returns on actual cash investment, that scarcity surcharge should be placed into an earmarked fund for capital works to augment storage and supply. This is what happens in competitive markets when scarcity emerges and good regulation should not allow scarcity rents to be perpetuated as monopoly rents when supply could be augmented.

Wastewater tariffs

Given measurement problems and the fact that wastewater volume is desired to flush the sewers, a flat rate based on value of land serviced seems optimal.

Specific Comments on Discussion Paper 3

Page 1, para 2

No one represents consumers nor are consumer advocates funded, so ACTEW has had an easy ride. Monopoly rents, notably in the form of bogus or notional cost base amounts, have been legitimized by ICRC. The ICRC regulatory process is institutionally flawed – no judge cannot make a decision when one party (the consumer) is not properly represented. ICRC should appoint counsel assisting or have some process of grants to consumer bodies to get proper critiques done of ACTEW submissions.

Page 3 Terms of reference, p 5 para 3

No self-respecting economic regulator can accept a brief to crush demand. As J. B. Say wrote, “consumption is the sole end and purpose of production”. The object of economics is to satisfy consumer wants, not to deny them!

Reducing demand as an *a priori* end in itself is as silly as saying that demand for housing should be reduced by pushing public tenants out into the street in winter or that scarce oil reserves should be conserved by licensing car trips.

Page 4 Precautionary principle

Apart from a lack of operational clarity, may one ask if that principle is to be applied to recycling sewage to produce water for human use?

Page 4 Inter-generational equity

ICRC should consider how water supply failures (yes, restrictions are evidence of failure) have detrimentally affected the urban environment of Canberra so that children and adults cannot enjoy the amenity enjoyed in years past in terms of pleasant gardens, parks and ovals.

Page 4 Valuation of environmental resources

One may ask why it is environmentally efficient to send water downstream at a nil price for ricegrowers and others to use (after substantial transmission losses) when ACT and Queanbeyan users are being charged far more.

Page 5 water abstraction charge

Why does this methodology not involve triple counting of “value”?

Page 7 second last para

The assertion that water is under-priced is merely that - an assertion often made by those with a vested interest in selling water tanks, grey water systems or having an eye to privatizing water utility cash flows from infra-marginal assets. There is no real evidence of natural urban

water scarcity – there is evidence of State and Territory Government under-investment in, or vetoing of, new dams (eg Tennent, Wellcome Reef, Mitchell River).

Page 8 first para

But if capital works increase storage enough, scarcity value drops to zero. (It also helps if the ACT Government does not empty the dams as recklessly throughout a drought as it has!)

Page 8 second para

The WAC is an arbitrary price far in excess of what is charged by the ACT Government to downstream users and involves multiple counting of value.

Page 8 Marsden Jacob estimates

Marsden Jacob estimated notional "full cost recovery" pricing for ACT water was $1.56 per kl. If ICRC is correct in its criticism of that report (which I believe it is) then it follows the Marsden Jacob "replacement cost recovery" price should be 80% of $1.56 or $1.25 per kl.

This is far below current top price of $3.12 per kl. On ICRC's own figures here, ACT and Queanbeyan water users are being grossly abused by ACTEW and the ACT Government.

(I have sent you separately a record of my conversation with Mr Marsden where he accepted my figures on SRMC of 10 cents per kl for water from a Tennent Dam.)

Page 8-last para, page 9 first para

This highlights the point that so-called scarcity pricing rewards the monopolist whose under-investment creates the scarcity unless such scarcity surcharges are earmarked into a separate fund to augment storage or supply infrastructure. Reducing the fixed charge is not the way to

go, because it subsidises landholders at the expense of consumers and would even dictate *negative* fixed charges as scarcity was driven ever higher! The scarcity charge should not go to relieving a past generation of users of any obligation to meet an availability charge (though I suspect ACT water infrastructure has already probably been paid off long ago) but should go towards creating new investment to eliminate the scarcity. New investment should be undertaken as scarcity rents emerge and the fixed costs recouped through land value rating.

Page 11 last para

Consumers *have* cut back water usage as prices per kl have skyrocketed since the 1990s – per capita consumption has dropped to levels where the amenity of the city's gardens has been damaged.

As for consumer resistance and the hardening of demand, does it occur to ICRC to consider the possibility that ratepayers might think they *are entitled* to have the water stored in the dams they have paid for and that they should not be expected to pay again and again?

Page 12 last para

SRMC is not a meaningless or vague concept. It can be applied in the ACT but is not because it would involve financial losses to ACTEW on its notional cost base. But getting prices as close as possible to SRMC is still the optimal policy.

Page 13 second para

But there is no *duty* to invest. Why should a monopolist invest much at all if it can pocket the scarcity rents which its anti-social behaviour has created? This is a key flaw in the Australia-wide regulatory system for infrastructure – it *assumes* optimal investment will be made. But a monopolist, as Adam Smith observed, has an interest in lagging behind and keeping the market under-stocked.

Page 13 second last para

But what does cost recovery mean? As Hotelling realized, pricing above SRMC to recover notional costs on sunk investments is economic folly. What is done is done.

Para 13 last para, page 14 para 2

Is this true? Rates on land serviced are not taxes but an efficient form of cost recovery. There is no economic requirement that *all* infrastructure costs be recovered *solely* from volumetric charges and a 2 part tariff with the availability charge being a rate on land values can recover fixed costs more efficiently than a surcharge on volumetric prices which drive them above SRMC.

Page 14 3rd para

Pricing at SRMC is *not* a subsidy! A price above SRMC is analytically a form of tax (as the Industry Commission recognized in its 1992-93? Annual Report). Incidentally, nice private gardens also confer external benefits on those enjoying the view.

Page 15 para 1

Baumol and Bradford knew nothing about the Australian land value rating system for infrastructure which allows one to avoid the so-called need to depart from SRMC pricing. Their ideas reflected the situation of the American privately-owned utility which could only recover costs from regulated prices. Vickrey knew better. Land value rating allows one to achieve a perfectly efficient 2-part tariff.

Page 15 last para

Land value rates *are* the fixed charge ("fixed" by the way does not mean fixed in money but fixed in the sense that it is invariant with respect to any action of the landholder or the water user – a "lump sum" charge).

Page 16 second last para

But there is no justification for departing from the law of one price. IBT's are only possible for a monopolist and are evidence of monopoly abuse – the very thing ICRC should be stamping out.

Page 17 second para

Dr Sibly is thinking of a *uniform* scarcity price for water, not an IBT. You can check this point with him.

Page 17 third para

With urban water, secure supply means that scarcity should only become an issue as dam levels drop – and if they drop often enough, it's a signal that new storage or other new supply options are warranted. The volumetric part of the tariff does not need to have scarcity charge in normal circumstances and does not have to be adjusted day by day for scarcity when it arises – dams do not empty overnight!

Page 17 para 4

LRMC pricing is not optimal. Why price on LRMC if there is no shortage of water and new investment is not required? And when new investment *is* required to meet demand and eliminate emerging scarcity rents, why not build and amortize the fixed costs through loans charged against land rates just as the ratepayers of Sydney solved their water shortages by financing Warragamba Dam in the 1950s? That way, you can always follow SRMC pricing (where SRMC includes scarcity rents as they emerge).

Page 19 para 4

Tier 2 usage charges are here admitted to be an abandonment of all economic reason!

Page 19 last para

Who decides what is discretionary? Cars with dirty windscreens do cost lives from time to time. These are arbitrary value judgements (mere opinions).

Page 20 first para

Where are the many economists who say supply should be fixed forever and prices rise forever to ration demand to that fixed supply? They certainly did not read Alfred Marshall!

Page 20 note 41

But investment in new water sources must be more rational and efficient than rationing demand to a fixed supply. Rationing by definition is not an economic optimum.

Page 20 note 42

But an “Independent” regulator should comment on absurd economics.

Page 21 para 4

Regulators have failed signally to curb monopoly rents –they have been complicit in dressing them up as cost recovery by allowing bogus or notional or previously recouped costs to enter into regulatory cost bases.

Page 22 first para

“Competing factors” need to be spelt out in detail with analytical rigour if one is to avoid becoming a fudge factory.

Page 22 para 4

These factors amount to central planning without any real economic justification.

Page 22 last para

The fact that ACT water prices are the highest in Australia is a condemnation of both the ACT Government and ICRC when it is remembered that the ACT’s dams were financed from lease payments and rates to serve 450,000 people at 1960s per capita consumption levels.

Page 23 Table 1

A textbook example in perverse Ramsey pricing to maximize economic deadweight losses!

Page 23 para 2

The logic of non-discrimination equally condemns increasing block tariffs.

Page 27 para 3

IPART was wrong. It moved further away from optimal SRMC pricing in doing this.

Page 29 last para

What, pray tell, is the logic of using incremental cost when there is in fact no incremental supply being delivered? Where is the new investment? Why is the incremental price not earmarked into a separate fund to contribute to new dam construction costs?

Page 30 first para

There is zero economic logic in the U shaped average price curve.

Page 31 para 4

$65 million is nearly half the cost of a new dam!

Page 34 para 3

By why is there multiple charging for scarcity value of water in the WAC?

Page 36 first para

External benefits seem to exist in the eye of the beholder. Don't private gardens confer external benefits on walkers by?

Page 36 3rd para

Why should there be discrimination in pricing? Should households subsidize businesses? The WAC already (wrongly) charges private water users to fund public spaces.

Page 37 para 4

The “free” allocation (in reality pre-paid) used to be 455 kls!

Page 37 last para

Seasonal pricing is not logical. What matters, whether winter or summer is whether storage is high enough or not to meet expected future demand. SRMC only needs to include a scarcity element as dam levels fall (and if it happens too often, it’s time for new water storage investment).

Page 39 para 4

Volumetric charging for wastewater would seem counter-productive since waste water is necessary to flush the sewers. If everyone cut wastewater by recycling greywater on their blocks the sewers could clog up. A lump sum land value rate seems more efficient.

Yours sincerely

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