# ONE GOOD BIG IDEA FOR WATER REFORM

Third-party access to pipes would open the way to more innovation and competition in water supply and disposal, argues **Scott Hargreaves**

'Give me a firm spot on which to stand, and I will move the earth.' —Archimedes (287–212 BC), explaining the principle of the lever.

At any given time, a steady stream of ideas for how best to achieve a safe, secure, and affordable water supply for Australia flows like a river to the sea. Sometimes, these ideas amount to rent-seeking, such as shifting the costs of infrastructure from farmers to taxpayers, and sometimes they are market-based, such as Richard Tooth's proposal to create a competitive market for water.[1]

In recent years, the stream of ideas has become a torrent, but the result has been a logjam, with a seemingly interminable round of intergovernmental meetings unable to make much progress. Potential reformers can easily get tangled in something like the National Water Initiative, which glories in ten 'objectives,' seven 'elements,' eleven 'outcomes,' and five key 'actions.' The Business Council of Australia has joined in the fun with its own laundry list of nineteen 'key steps' necessary to secure the economic benefits of water reform.[2]

This article's purpose is not to review all the ideas flowing in the broad stream, but rather to lift out one good, big idea, which can in turn give some cohesion and direction to the rest.

Specifically, this big idea is to create a national regime for third-party access: a system by which the owners of water and wastewater pipelines carry water at regulated prices for all comers. Ideally, third-party access would be accompanied by structural reforms establishing the pipeline businesses as separate commercial entities, splitting them off from the bulk supply and retail functions. This would ensure greater cost transparency and permit innovation and competition at either or both ends of the pipes.

With one partial exception, this contrasts greatly with the current system. Across Australia, particularly in the capital cities, the picture is overwhelmingly one of state ownership and control of the water supply system. In Sydney and Perth, state monopolies control wholesale and retail operations, while other state bodies control bulk water supply. In South Australia, the private sector has been given a major but nonetheless subservient role in operations, according to the terms of a long-term contract with the state. Victoria offers the minor innovation of regional state-owned monopolies managing retail sales and local distribution while a much larger monopoly controls supply and distribution at the bulk level. Southeast Queensland provides a clue as to how it could be otherwise, with the state government maintaining public ownership but introducing access regimes and contestability.

**Scott Hargreaves** works in corporate public affairs in Melbourne. These views are his own.

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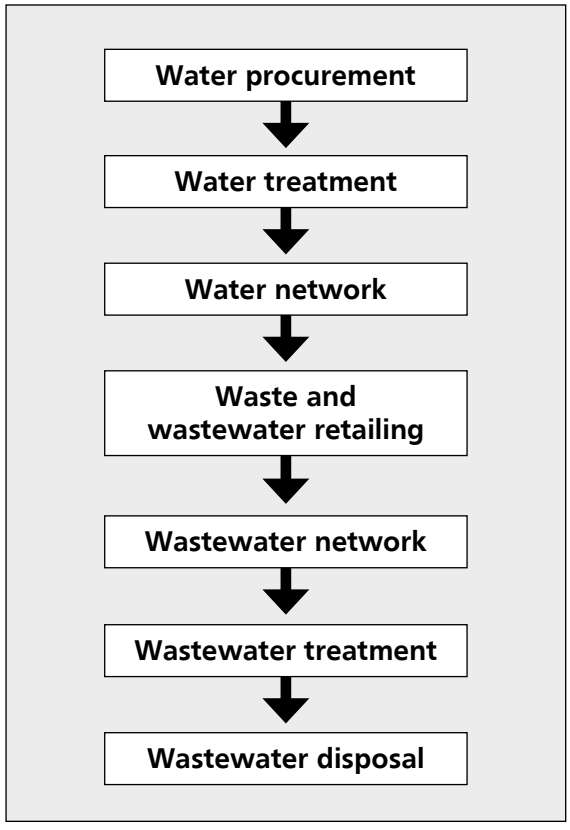
A truly strategic approach to reform must not fight on every front at once, but at the point of greatest leverage. This requires a reform that promotes economic efficiency in its own right while driving institutional change so that a constituency and an agenda for further reform will inevitably follow. Third-party access can do that.

## What is third-party access?

The water supply system in any locality can be described in the terms of figure 1 below:

**Figure 1:** The water and wastewater supply chain




Third-party access in this context would be a legal regime applied to the water network and the wastewater network. It has been defined as

> the access or increased access granted to a new market entrant to an incumbent's infrastructure and services where these are:
>
> • a natural monopoly, i.e. it is more economic for a single facility or network system to supply the market than to duplicate the facility or network; and
>
> • essential in underpinning another (dependent) market where products and services can otherwise be competitively supplied.[4]

In Australia, third-party access has been a well-understood and productive element of the national gas and electricity grids for at least a decade. Just as electrons from power stations are carried to your home across poles and wires subject to a third-party access regime, so the water from your tap could be delivered by regulated pipelines. New service providers could also compete to take away your wastewater, for treatment and on-sale to appropriate customers for reuse, without facing the prohibitive costs of building their own water and wastewater networks.

Third-party access operates smoothly in part because there has also been structural separation, with public sector companies like Transgrid (NSW), as well as private-sector companies such SPI Powernet and Powercor (Victoria), focusing solely on the 'poles and wires' business.

By contrast, a potential new entrant in water wishing to introduce a new source of bulk supply would more than likely be seeking terms for access from the very company against whom he wishes to compete. While some such deals have been done simply by agreement, the lack of regulation and structural separation means it is precisely those proposals that will have the most impact that will be most stoutly resisted.

Richard Tooth has suggested that the rights to release of water from a catchment could be auctioned in whole or in part to private-sector players, to facilitate competition and assist in finding a market price for water that reflects its scarcity. This is an excellent suggestion, but current institutional arrangements give no guidance as to how that water could be delivered to the consumer.

## Is 'water' a natural monopoly?

> 'Water is a natural monopoly and a public resource, which must remain in public ownership and control.' —Australian Conservation Foundation[5]

The above statement makes an error commonly heard in the public debate on water.

It extrapolates from elements of the water supply system that do have natural monopoly characteristics—the pipelines—to include the system as a whole. A superior approach treats these monopoly aspects separately and regulates them appropriately. This removes monopoly as grounds for maintaining public ownership. Other stages in the supply chain (supply, treatment, and retail) can then be (de-)regulated as appropriate to their own special characteristics, enabling innovation and introducing competition, and increasing the efficiency of allocation.

Monopolies use their control over the network to protect other aspects of their business from competition.

Allocative efficiency is the principle that capital should flow to wherever it will achieve the greatest increase in utility for the system as a whole. This relies, at the very least, on adequate information about unit costs and service quality throughout the supply chain, but in an integrated, centrally planned system, this information is too frequently hoarded, deliberately biased to enable furtive cross-subsidisation or, just as likely, does not exist. Water is quite transparent, but the water supply system is not.

Moving away from a centralised model of investment decision-making increases allocative efficiency. The Economic Regulation Authority of Western Australia has pointed out that

> third party access regimes allow for a 'decentralized' approach to water and wastewater planning and foster dynamically efficient outcomes … planning decisions, such as the need for additional bulk water sources or treatment plants, are driven by market forces.[6]

The regulators who oversee third-party access regimes establish standardised methodologies for calculating the capital and operating costs associated with the network assets. With public processes to review these costs, and the cost of capital allowed to be recovered, real financial information about the different aspects of each water entity begins to be revealed.

Previous patterns of behaviour by vertically integrated monopolies that control the whole water supply and waste disposal system suggest they would do the absolute minimum necessary to comply with new demands for information and access. These monopolies use their control over the network to protect other aspects of their business from competition. The beneficial effects of access would therefore be maximised if accompanied by structural separation, with separate entities responsible for bulk water supply, bulk transmission, distribution, and retail functions. Each may well remain in public ownership, but at least with structural separation each entity would have clear lines of accountability, and the relationship between costs and prices in each part of the water supply chain would therefore be revealed to regulators, parliaments, and the public.

With appropriate information available to the marketplace, governments could be scrutinised more closely for the increasingly large investments they are making in supply increments such as desalination plants, and non-government players could begin to accurately cost their own alternatives. In a water supply system subject to market arrangements and third-party access, holders of private capital have the scope to make their own investments to service consumers. They can make risk-taking investments in bulk supply, or apply to the regulator for augmentations (extensions) to the networks.

## A shifting current of reform

The establishment of a regime of third-party access was central to the National Competition Policy (NCP) promoted by the Keating ALP government and agreed to by the states in 1995. A national access regime was introduced into part IIIA of the *Trade Practices Act 1974* (*TPA*).

The NCP agreements also incorporated industry-specific plans for electricity, gas, road transport, and water. For electricity and gas, there was a package of industry-level reforms with the introduction of a wide-ranging National Access Code sanctioned by the National Competition Council (NCC).

This step was not taken for the water sector, perhaps because it was felt it did not have the

same opportunity for gains from interstate trade. The myriad environmental and agricultural issues associated with water also pressed on the agenda. The NCC recognised in its 1997–98 annual report that

> Water reform is an area that extends beyond competition policy matters to embrace social policy issues such as recognising the environment as a legitimate user of water.[7]

The political interests that follow environmental and agricultural problems ensured that their issues would dominate debate, and the impetus for structural reform appears to have petered out after the initial burst of activity (transferring governance from one jurisdiction to another should not count as an economic reform).

As a result, there have been many useful reforms undertaken in the water sector, but for third-party access the only legal avenue available has been part IIIA of the *TPA*. In contrast to the energy sector, for water nothing at all happens under part IIIA until the potential new entrant lodges an application with the relevant regulator. There are then a series of legal tests, each of which must be met before access can be granted. One of these is that the assets must be of national significance, which limits the jurisdiction of the *TPA*. This was presumably to allow the states to regulate access within their own borders, but they did not do so. The issue was considered as early as 1997 by Tasman Asia Pacific in a report for the NCC which found that

> The national significance test is, arguably, the most difficult hurdle for any declaration application to overcome.[8]

Part IIIA is necessarily adversarial, and when the 'defendant' is a public authority with deep pockets and established avenues of influence, the new entrant faces great difficulties. This was seen in the case of Services Sydney, a private venture aiming to provide sewage collection services to the Sydney community and to compete with Sydney Water for customers. It wanted access to Sydney Water's sewage network as part of a plan to intercept sewage at certain points of Sydney Water's North Head, Bondi, and Malabar systems, to divert it to new sewage treatment and water reclamation infrastructure that would extract water from the sewage for reuse.

Services Sydney's plans included construction of a deep tunnel between the ocean outfalls of the three systems, to transfer sewage that normally goes out to sea to new water reclamation facilities. This kind of plan is a prime example of the innovative thinking that would be encouraged if there was third-party access.[9]

Unfortunately, Services Sydney was reliant on the willingness of Sydney Water to offer access on fair terms. When this was not forthcoming, the company applied to the NCC to have an access regime declared over the water and wastewater networks according to the provisions of part IIIA of the *TPA*. So began nearly four years of litigation and political manoeuvrings, involving rulings by the NCC, the Australian Competition Tribunal (the tribunal), and the Australian Competition and Consumer Commission (ACCC).

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At each stage the principle of access was opposed by the NSW government but upheld by the competition bodies, with the tribunal offering in its 2005 judgement an excellent justification for legally enforceable third-party access:

> It is clear enough from the foregoing discussion that the actual entry of competitors into such an entrenched structure, even on a modest scale, is likely to take a considerable period of time while all of the ramifications are worked through, state and municipal regulations considered, planning and feasibility studies done, approvals arranged, finance obtained, contracts let and construction completed. *None of that could be seriously commenced until access to the services becomes a realistic possibility by declaration, or an effective state regime of access established*. (emphasis added)[10]

Unfortunately, this was a limited victory for Services Sydney, as the tribunal could only declare access without being able to prescribe a practical and commercial access regime (the *TPA* is, in the words of the tribunal, a 'two-step' process).[11] It took until July 2007 for the process to reach the second step, where the ACCC ultimately ruled on a pricing methodology for Sydney Water's assets: a 'retail minus avoidable cost' approach.[12] This ridiculously expensive and protracted process highlights the limitations of using part IIIA to obtain access, particularly when the incumbents want to avoid it.

The Services Sydney case is the critical context in which to understand how the NSW government—hardly known for its reformist zeal—came to introduce the *Water Industry Competition Act 2006*, which establishes a state-based access regime.

The act is not without its merits, but its genesis was the determination of Sydney Water and the NSW government to prevent the NCC and the ACCC ruling on access. The NSW government had the entire decade following the introduction of National Competition Policy to establish a state-based regime authorised by the NCC, which would have excluded any application of part IIIA. They did not do so, and intervened only as a Johnny-come-lately, leading to the legally ambiguous situation of simultaneous state and national coverage of Sydney Water's assets.[13] The absence of substantive changes to the structure of Sydney Water demonstrates a lack of commitment to realising the full benefits of access.

Under the *Water Industry Competition Act*, future access-seekers for any assets other than Sydney Water must now turn first to all to the state regulator, IPART, and then hope that the minister responsible will ultimately agree to access being granted. On this matter, the government has 'form' that would not increase the confidence of a new entrant.[14]

A more rational approach would be to establish that a third-party access regime should apply wherever appropriate, and then to systematically undertake the necessary evaluations, structural separations, price determinations, and regulations to put it in place. This would deliver immediate benefits from transparency and appropriate cost allocation, and open up the field for competition and greater efficiency.

In this way, potential new entrants would find the playing field already level. As the law stands, they have to bring along their own grader, topsoil, and spreader, and wait for the grass to grow, before they can even begin to play.

## Queensland runs against the tide

In contrast to NSW, water distribution in Queensland has historically been in municipal rather than central government control. While local councils may have resisted reform, they were nonetheless outside the decision-making councils of government, which in 2007 passed legislation for root-and-branch reform of water supply arrangements in southeast Queensland.[15]

The reforms go far beyond the mere application of third-party access. Vertical disaggregation creates separate entities responsible for bulk supply, bulk transport, distribution, and retail functions. There is also horizontal disaggregation, with three upstream bulk supply businesses established, two based on catchments, and the third holding a proposed desalination plant and an inter-catchment pipeline.

It is the latter step that shows how competitive pressures can be introduced into aspects of the water supply system that previously operated as monopolies. Because the true monopolies, the pipelines, have been made separate, the contestable nature of bulk supply and retail functions is now apparent. Disaggregating bulk supply units as Queensland has allowed prices to be revealed and a form of market established. If barriers to entry are removed, a competitive market can operate.

The key step is to establish third-party access regimes for

- connection rights to the water and wastewater treatment plants owned by each bulk supply business
- the bulk transport business
- the distribution business

The Queensland government is to be commended for implementing these reforms, which put the cautious, if not pedestrian, pace of reforms in other jurisdictions into the shade.[16]

## Next steps

The Economic Regulation Authority of Western Australia, which supports a regime of third-party access,[17] noted the hyperextended timelines for the Services Sydney process and said:

> The introduction of a State-based third party access regime prior to the receipt of an application by an access seeker would reduce these barriers to entry and facilitate the further introduction of competition into the water and waste-water industry.[18]

A series of state-based regimes, starting with Queensland, NSW, and perhaps WA, is therefore possible, but when governments signed on to the National Competition Policy they agreed that 'where more than one State or Territory regime applies to a service, those regimes should be consistent.'[19]

A national approach with consistent provisions would avoid a potentially piecemeal approach to development by individual states. A level of consistency would assist with potential new entrants seeking a national presence, and would ensure that all states, not just the acknowledged leaders, would institute the necessary measures. The leaders could be rewarded and the followers encouraged by a system of performance payments by the commonwealth government, on the advice of the NCC, as was done in the case of National Competition Policy.

Given that interstate trade in water is unlikely to approach the levels seen in electricity and gas, a national approach does not necessarily require a single national regulator, and the regime must be flexible enough to allow for variability in state-specific circumstances.[20] In the early days of the energy markets, distribution and retail functions were regulated within the state jurisdiction, and some similar division of responsibilities could be maintained.

## Concluding remarks

Only the commonwealth government has the means to initiate the development of a national third-party code for access, and then the structural reforms necessary to secure the full benefits available. For the reasons described in this paper, it appears that most states have too many vested interests in a state-run system to go anywhere near as far as they should.

Reforms ... could be a tremendous boost to the efficiency of production and allocation in the water sector.

In this respect, a highly pertinent input came from Ken Matthews, head of the National Water Commission, who said early in 2008 that a national third-party access regime would be 'an interesting thing for COAG to look at. Some states would argue "We've already got one, so why do you need a national one?" But some states certainly haven't got one.'[21]

The commonwealth government can sit back and watch the flow of reforms be impeded, or it can wade into the stream to clear the logjam and enable realisation of the potential benefits to consumers. The result could be a tremendous boost to the efficiency of production and allocation in the water sector, with consequential benefits to all stakeholders, or there could be more of the same. We shall see.