SUBMISSION TO THE

INQUIRY ON COMPETITION

IN THE

WATER AND WASTEWATER SERVICES SECTOR

31 AUGUST 2007

EXECUTIVE SUMMARY

It is our contention that there are sufficient parallels between the electricity and water sectors to imply that much of the deregulation experience in the electricity sector is transferable to the water and wastewater sectors.

Our major findings are summarised below.

Water and Wastewater Procurement and Treatment

Traditional methods of meeting the water supply needs of urban communities are being abandoned for technologies that are more reliable and less reliant on climate and the vagaries of weather patterns e.g. wastewater recycling, groundwater, desalination plants, interconnected pipelines or water grids.

It is also likely that these new technologies will be of a smaller scale compared to traditional dam building activity. For example, wastewater recycling and desalination plants are likely to be more localised supply options that require less capital outlay than for dam building. This has the potential for new entrants to enter the market, since at least one major barrier to entry (large capital investment) is avoided.

This is very similar to what occurred in the electricity generation sector with the advent of highly efficient natural gas fired turbines, making it possible to build small units in two to three years with reduced risk. This broke a significant barrier to entry in generation and made large capital-intensive coal plant less attractive.

Third Party Access to Water and Wastewater Networks

Third Party Access is critical to enable water supplier's access to wholesale or retail markets. Third party access enables suppliers to target new customers or customers already serviced by existing government water utilities. This provides competitive pressures and improved management practices and service delivery to customers. It can also bring new efficient technologies into the water supply chain e.g. desalination, recycling etc.

Water Trading and Retail Competition

In our experience, what is critical to ensuring retail competition are the following:

- Regulated tariffs set at levels that reflect costs of supply and provide margin headroom for competitors to offer market based contracts.
- Retailers can purchase supplies from a competitive wholesale market.

In our opinion, there would need to be major reform of retail pricing in the water market to enable the efficient rationing of water to those users who value it highly and to provide signals for new sources of supply. This would need to be addressed prior to the opening of retail competition in the water and wastewater sectors.

Having a competitive wholesale market entails the following:

- Many wholesale sellers and buyers of water and wastewater services.
- Third party access to monopoly controlled water and wastewater transport infrastructure.
- Creation of a market operator to administer the market, enforce market rules and to ensure that there is sufficient capacity (wholesale supply) to meet a prescribed reliability criteria (1 in 50 year water restrictions etc).
- Visible short run price signals to enable the market to be in balance.
- Visible long run price signals that enable market participants to make appropriate investment signals.

Without a competitive wholesale water or wastewater market, there is no guarantee that customers will benefit from market deregulation, since wholesale water or wastewater participants will be able to utilise market power to push up wholesale prices.

A critical learning from reform in the electricity and gas sector is for governments and policy bodies not to make promises about decreasing water and wastewater prices as a result of creating competition. Competition reform should be about promoting economic efficiency, achieving environmental outcomes and ensuring reliability of supply. Focusing on price reductions will limit the ability of a market to achieve these objectives, and in the end may result in steeper prices increases for customers than would have evolved from competitive market outcomes.

Retail Services

One of the key advantages of the energy reform process has been the creation of organisations focused on their part of the value chain: generation, network and retail. The creation of Synergy as a standalone energy retailer has enabled us to focus on procuring energy at the lowest possible cost and ensuring that customers receives products and services that meet their needs. Synergy also acts as a 'customer advocate' with regard to issues impacting customers such as network reliability, financial hardship policies and environmental policies.

It is our experience that to be a successful water or energy retailer in a competitive market environment, an organisation would need to have the following key competencies[1]:

- Strong and Trusted Brand.
- Low Cost To Serve.
- Strong customer acquisition and retention skills.
- Robust customer management capabilities and processes.
- Strong wholesale procurement and risk management capabilities.

[1] Adapted from The Boston Consulting Group, Queensland Energy Structure Review, Final Report, March 2006.

INTRODUCTION

Synergy, the state owned energy retailer, was formed from the disaggregation of the Western Power Corporation, consistent with the Government's objective of creating a more competitive electricity market in Western Australia. As a result, we can provide some insight and learning's that may be relevant to the Inquiry on Competition in the Water and Wastewater Services Sector.

It is our contention that there are sufficient parallels between the electricity and water sectors to imply that much of the deregulation experience in the electricity sector is transferable to the water and wastewater sectors.

BACKGROUND

Synergy is Western Australia's largest energy retailer with approximately 890,000 industrial, commercial and residential customers, generating total revenue of more than $1.5 billion annually and is responsible for purchasing and retailing electricity and gas to customers in the South West Interconnected System (SWIS).

Synergy is a statutory State owned Corporation, with more than 350 staff. It was established on 1 April 2006 as part of the restructure of the Government owned vertically integrated monopoly, Western Power Corporation and the creation of four new stand alone corporations.

Transitioning from a vertically integrated monopoly facing limited competition to a separate retailing entity facing competition from a number of private sector companies, Synergy is able to offer a unique perspective on the issues that can arise in attempting to create competition in formerly non-competitive markets, such as water and wastewater.

PARALLELS BETWEEN WATER AND ELECTRICITY

Like the water industry is today in Australia, prior to 1994, virtually all electricity was supplied though vertically integrated state monopolies. The prevailing view prior to 1994 was that the electricity sector could not operate in a competitive market since there were significant barriers to promoting competitive market outcomes:

- Transmission and distribution are natural monopoly businesses, which implies that there could only be one supplier in each jurisdiction.
- Central planning and co-ordination were the only way to ensure investment in generation and transmission would occur to maintain reliability standards and ensure a least cost expansion path.
- Given that electricity is non-storable, electricity prices in the short run would be volatile and create significant trading risks for retailers, and considerable price uncertainty for customers.
- Electricity is an essential service and governments should provide this service to ensure that all customers have equitable access.

Many of these arguments are similar to the arguments raised for why there cannot be competition in the water sector eg natural monopoly, central planning, essential service etc..

Despite these arguments, electricity market reform went ahead and today the integrated electricity monopolies have been disaggregated into different businesses, with both private and public sector ownership.

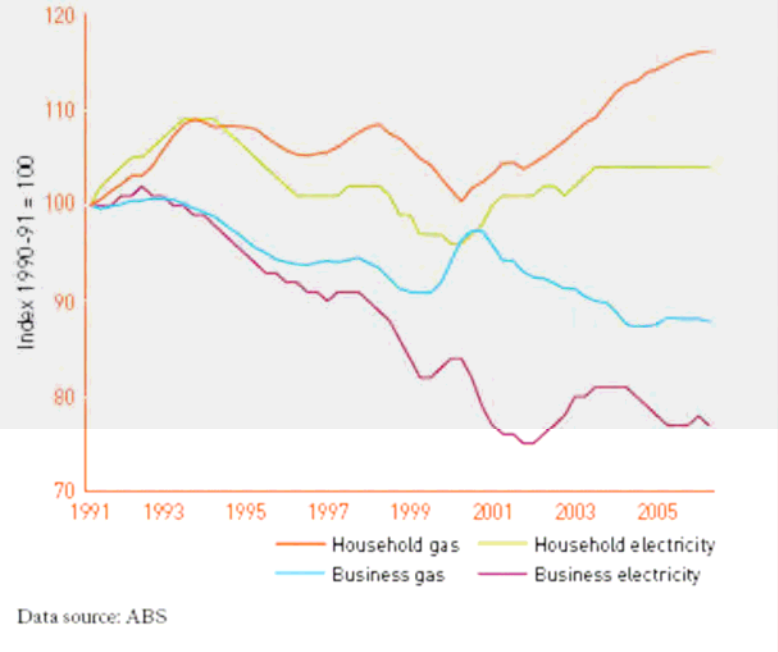
There are wholesale electricity markets in Eastern Australia (NEM) and in Western Australia (WEM), that provide price signals for new investment in generation capacity, as well as ensuring that generators operate efficiently in the short term. There are market operators that ensure that these wholesale markets operate effectively.

The natural monopoly elements of the electricity supply chain (i.e. transmission and distribution) are highly regulated to ensure no abuse of market power and third party access regimes put in place to ensure that new retailers can effectively enter (or exit) the market.

Customer protection frameworks have been put in place to ensure that ‘vulnerable’ customers receive a prescribed minimum standard of service at a fair price. In most electricity markets, retail price regulation is maintained to ensure that electricity retailers do not abuse any market power that they have.

Millions of customers are free to choose their energy supplier. While the maturity of retail competition may vary, there is evidence of customers taking advantage of competitive offers. By Dec 2006 in Victoria, the number of small customer switched from one retailer to another exceeded 60% of all customers. This was similar in SA. Real electricity prices have fallen for small business customers, and residential customers have also benefited from competitive offers.

Electricity and Gas Retail Price Index (real): Australian Capital Cities



At the same time, investment in new capacity has not been compromised[2]:

- 5000 MW of electricity generation capacity was built in the NEM between 1999 and 2006.
- Annual investment of $700 M in transmission.
- Annual investment of $3 b in distribution.

[2] Australian Energy Regulator, State of the Energy Market 2007

REFORM OF THE WA ELECTRICITY MARKET

Consistent with National Competition Policy, the WA State Government embarked on a program of reform of the State's electricity industry. The State Government's key objectives were to:

- create a competitive electricity market to encourage private sector investment;
- improve reliability of supply and,
- place downward pressure on prices.

The key components of this program included:

- the restructure of the Western Power Corporation into four Government owned entities;
- the establishment of a wholesale electricity market;
- establishment of a third party access regime for electricity networks;
- the development of a strong and independent regulatory framework including measures to protect smaller customers in the new market;
- reduction in the contestability threshold to 50 megawatt hours; and
- the facilitation of sustainable energy options.

The disaggregation of the Western Power Corporation was critical to separating the natural monopoly businesses (i.e. transmission and distribution) from the competitive businesses (generation and retail), as well as reducing Western Power's market dominance of both the generation and retail markets.

The successor network business, also named Western Power, is the monopoly network provider that is regulated by the Economic Regulatory Authority. Western Power operates a network access regime that ensures that generators and retailers can obtain non-discriminatory access and use of the network infrastructure. This access regime reduces barriers to entry with regard to new generation and retail entry.

In the wholesale electricity market, Verve is not permitted to own, operate or control more than 3,000 MW of generation plant – current market size of around 4,100 MW. This implies that as the demand for electricity grows, new entrants will meet electricity growth and help to reduce the dominance of Verve in the wholesale market.

In addition, Verve's market power has also been mitigated by the Government putting in place a vesting contract between Verve and Synergy, which obligates Verve to supply electricity to Synergy for existing customers on prescribed terms and a utilising a prescribed price formula, known as 'netback'. Under the netback formula, Verve receives the difference between Synergy's electricity revenue and Synergy's retail margin (includes cost to serve) plus network costs. Thus, while Synergy's margin and costs are covered under this formula, Verve's revenues are not guaranteed, since increases in retail and network costs can reduce Verve's revenue stream. The vesting contract ensures that in the early days of reform, Verve cannot exercise market power for the bulk of its electricity sales.

Over time the vesting contract arrangements roll off (around 400 MW per annum), enabling Synergy to test whether other wholesale participants can provide electricity on better terms than under the vesting contract arrangements. This provides another avenue for new entrants to enter the market.

The retail electricity market in Western Australia has been progressively opened to competition since 1999. Currently, customers that consume more than 50 MWh per annum (equating to an annual bill of about $8,000) are contestable. This means that approximately 60% of the load in the SWIS is contestable. Synergy, supplies both contestable and non-contestable consumers in the SWIS; and other retailers (including Alinta, Griffin Energy, Landfill Gas and Power, Perth Energy, TransAlta Energy, Wesfarmers Premier Power Sales and Worsley Alumina) retail electricity to contestable customers. Horizon Power supplies both contestable and non-contestable customers outside the SWIS.

One of the key advantages of the energy reform process in WA has been the creation of three separate corporations that are more focussed on improving their business operations in each of their relevant areas:

- Verve Energy (generator) is focussed on procuring the lowest priced fuel for its generation plant, and ensuring that the plant is available to meet market needs;
- Western Power (networks) is focused on building and maintaining a transmission and distribution system that meets regulated reliability criteria; and
- Synergy (retail) is focused on procuring energy at the lowest possible cost and ensuring that customers receive products and services that meet their needs.

WATER AND ELECTRICITY VALUE CHAINS

There are striking similarities between the value chain of the electricity sector and that of the water and wastewater sectors as depicted below:

WATER AND WASTEWATER SUPPLY CHAIN	ELECTRICITY SUPPLY CHAIN	ELECTRICITY COMPETITION
Water procurement	Fuel procurement	Yes
Water & Wastewater treatment	Electricity Generation	Yes
Water & Wastewater network	Transmission and Distribution (T&D)	No
Water and Wastewater retailing	Electricity Retail	Yes
Wastewater Disposal	Disposal of wastes from power generation and T&D activities	Yes

The third column indicates whether there is currently competition in each component of the value chain in the electricity sector. Except for T&D, there is competition in all other components of the electricity value chain.

While the water industry is broadly similar to the electricity industry, there are some key differences[3]:

- Water and wastewater transportation network assets are relatively more expensive to construct than electricity or gas networks. Water and sewerage mains account for around 70 per cent of the industry's assets by value, whereas transmission and distribution only account for around 50%.
- Water transportation networks are more expensive to operate than electricity networks. This, in combination with high construction costs, makes the total cost of providing transportation services greater in water than in other infrastructure industries. Relatively high transportation costs makes it less feasible to trade water over long distances.
- Water and wastewater production costs lower than in other industries - comprise around 31 per cent of total industry costs, whereas power production costs are around 50 per cent.

Below we consider the potential for competition in the various components of the water value chain.

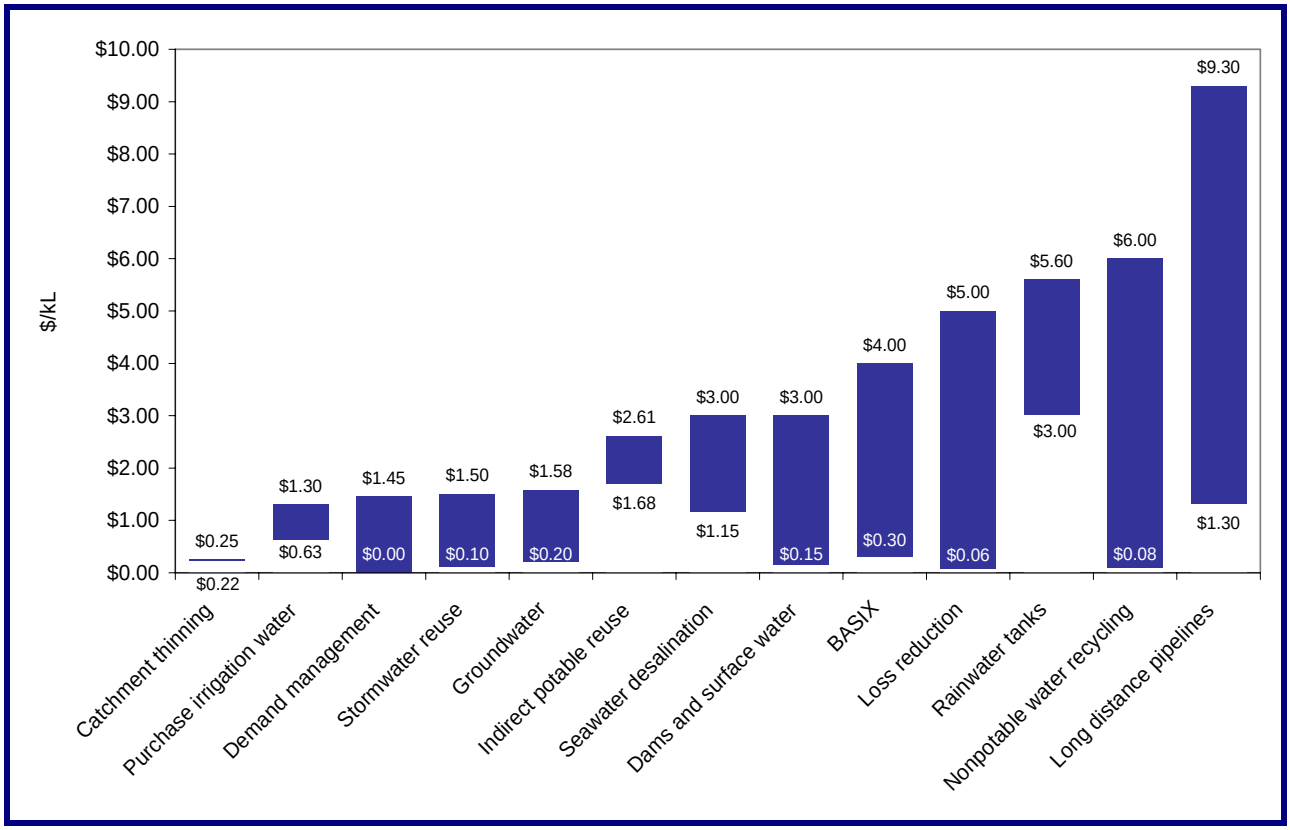
Wholesale Supply (procurement and treatment)

For Australia's coastal cities, an extensive array of additional water supply and demand management options are available which potentially allows diversification of supply against climate variability and climate change. Supply options, which are not rainfall dependent, include seawater desalination and wastewater recycling, which can potentially offer large-scale supply.

Figure 1 shows the potential costs associated with delivering water (or reducing demand via demand management) for various capital cities (including Perth).

[3] TASMAN ASIA Pacific, 'Third Party Access in the Water Industry" Sept 1997

Figure 1: Direct Costs of Water Supply / Demand Options– Sydney, Adelaide, Perth, Newcastle



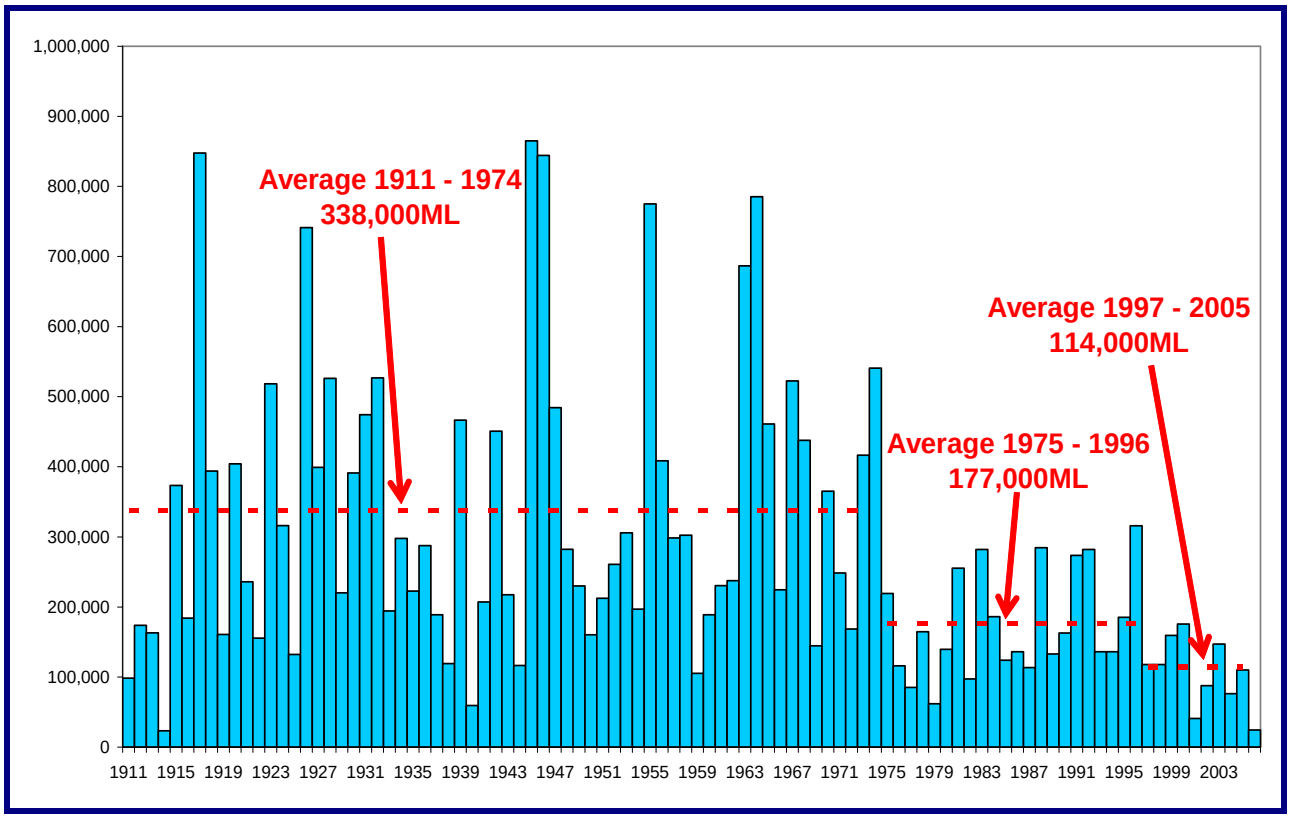
Source: Marsden Jacob Associates, A discussion paper prepared for the Department of Prime Minister and Cabinet, Securing Australia's Urban Water Supplies: Opportunities and Impediments, November 2006.

The cost of seawater desalination is between $1.15 to $3.00 per kilolitre and is considerably less expensive than securing supply from long distance pipelines, such as the proposed Ord pipeline (~ $6.70 per kL). In order to recover the cost of these more expensive water supply technologies, water prices will need to increase by at least 34% in Western Australia.[4]

Synergy observes that there is a low risk that these new technologies will become stranded by increases in future rainfall in Western Australia, which will improve traditional surface and ground water resources. Reductions in rainfall in the southwest of WA are readily observable and appear to be permanent (Figure Two).

[4] Marsden Jacob Associates (2006).

Figure 2: Annual Inflows for South-West Dams (south-west WA)



Source: Adapted from Water Corporation, Integrated Water Supply Scheme Source Development Plan 2005.

Australia's first large scale saltwater desalination plant came into production in Perth in November 2006 and has become the city's single largest water source (17%). The plant produces up to 45 gigalitres per year (or 130 ML/day).

The WA government has rejected extracting water from the South West Yarragadee Aquifer in favour of another desalination plant (130 ML/a) at Binningup, north of Bunbury. The plant will produce 45 gigalitres of water per year, with the potential to increase to 100 gigalitres, and will be powered by renewable energy. The new plant will begin operations in late 2011.

The above changes highlight that traditional methods of meeting the water supply needs of urban communities are being abandoned for technologies that are more reliable and less reliant on climate and the vagaries of weather patterns e.g. wastewater recycling, groundwater, desalination plants, interconnected pipelines or water grids.

It is also likely that these new technologies will be of a smaller scale compared to traditional dam building activity of the early 1900's. For example, wastewater recycling and desalination plants are likely to be more localised supply options that require less capital outlay than for dam building. This has the potential for new entrants to enter the market, since at least one major barrier to entry (large, sunk capital investment) is avoided.

This is very similar to what occurred in the electricity generation sector with the advent of highly efficient natural gas fired turbines making it possible to build small units in two to three years with reduced risk. This broke a significant barrier to entry in generation and made large capital-intensive coal and nuclear plant less attractive.

The advent of gas-fired plant in WA has increased competition in the wholesale electricity market that was previously dominated by the Western Power Corporation. In WA, Alinta was able to commission its first co-generation unit in Pinjarra (145 MW plant) in 2006. Another co-generation unit followed in 2007 (145 MW plant). Alinta are also constructing two gas peaking units that are due to be commissioned in October 2007. Other players that have entered the wholesale electricity market utilising efficient gas plant include ERM (311 MW) and Worsley Alumina (114 MW).

Third Party Access to Water and Wastewater Networks

Similar to the electricity industry, governments are looking at providing water wholesalers access to the water or the wastewater transport system, which is owned by a government water utility, to supply services, such as recycled water. Third party access can also involve the wholesaler targeting new customers or customers already serviced by the government water utility. This provides competitive pressures and improvement management practices and service delivery to customers. It can also bring new efficient technologies into the water supply chain e.g. desalination, recycling etc. Two examples of third party access arrangements in Australia are, Barossa Infrastructure Limited (a private consortium made up of 250 irrigators), which gained access to a water pipeline owned by SA Water to provide water for irrigation and the use of Brisbane Waters treatment plant and pipeline by local councils. Both of these arrangements were cooperatively arranged with an incumbent water authority.[5]

Generally, access is more likely to be sought for urban water and wastewater services than rural services (excluding irrigation services). This is largely because there is greater capacity for upstream and downstream competition in urban markets relative to smaller rural markets. For rural water systems, access is most likely to be sought for irrigation water and, possibly, wastewater disposal services.

Water Trading & Retail Competition

A major thrust of the National Water Initiative (NWI), that was established by the Commonwealth Government and endorsed by the WA Government in 2006, is to establish firm entitlements to water backed by statutory water management plans and robust registers to facilitate trade in entitlements and allocations. This direction is firmly focussed on the bulk water systems and entitlements held by irrigators and other major users.

There is potential for cities to purchase water entitlements from irrigators. Significant trades have already occurred in Adelaide and Perth (Water Corporation purchases water for urban users from Harvey Water – local irrigator).

Synergy is a standalone energy retailer that competes with other traders and retailers to purchase gas and electricity, obtain access to energy transport infrastructure and then on sell these services to customers.

In our experience, what is critical to ensuring retail competition are the following:

- Regulated tariffs set at levels that reflect costs of supply and provide margin headroom for competitors to offer market based contracts.
- Retailers can purchase supplies from a competitive wholesale market.

Under these conditions, new retail entrants will be encouraged to participate and will be able to acquire wholesale supplies to meet customer demand.

[5] Department of Prime Minister and Cabinet (August 2006), A Discussion Paper on The Role of the Private Sector in the Supply of Water and Wastewater Services.

Our observations of the water pricing arrangements in WA are that the structure and level of water pricing has not been sufficient to encourage water conservation, nor do they adequately signal the anticipated costs of new sources of supply. It is difficult to know what the anticipated costs of new supply are likely to be given that some of these new proposals have not been subject to a strict commercial test (i.e. formal water procurement process).

In the ERA's Final Report on the Inquiry on Urban Water and Wastewater Pricing, the ERA argued that prices for water services should be restructured so that usage charges reflect the cost of developing new water resources ($1.01 in 2005/06 to $1.07 in 2014/15, in real terms). We also note that this price increase would not guarantee that sprinkler restrictions could be lifted (could be relaxed from two to three days per week), implying that prices were not set at a sufficient level to ensure that demand was constrained to forecast supplies.

An efficient water market requires that prices should be set at a level where demand and supply is matched. If demand is high, then prices should increase to ensure that water is adequately rationed between users. Those users who cannot reduce their consumption easily or value the water highly (eg drinking water) pay the higher price; whereas those users who can easily reduce water consumption (eg water use in gardens, since they can readily substitute to bore water or use drip irrigation) mitigate the price rise. The high price provides a signal for users to reduce demand in the short run, and if the price remains high, provides a signal for new investment in new sources of water supply (e.g. Price > Long Run Marginal Cos (LRMC)).

Clearly there would need to be major reform of retail pricing in the water market to enable the efficient rationing of water to those users who value it highly and to provide signals for new sources of supply. This would need to be addressed prior to the opening of competition.

Having a competitive wholesale market entails the following:

- Many wholesale sellers and buyers of water and wastewater services.
- Third party access to monopoly controlled water and wastewater transport infrastructure (discussed previously).
- Creation of a market operator to administer the market, enforce market rules and to ensure that there is sufficient capacity (wholesale supply) to meet a prescribed reliability criteria (1 in 50 year water restrictions etc).
- Visible short run price signals to enable the market to clear over the week, month or season.
- Visible long run price signals that enable market participants to make appropriate investment signals.

While the current WA electricity market has some of the above features, our experience to date is that a competitive wholesale electricity market is yet to emerge in Western Australia. Once significant barrier to the emergence of competition was the structure of the market.

When the Western Power Corporation was disaggregated, Verve Energy (state owned generator) was permitted to maintain most of its assets (>3,000 MW of plant) and fuel contracts, resulting in Verve having considerable market power in the short to medium term. Given that the electricity market is fairly tight, this enables Verve considerable market power to set prices for uncontracted energy.

Any restructure of the Water Corporation needs to take into account the implications for a competitive wholesale market of allowing the Water Corporation to retain control of its existing portfolio of water and wastewater plants.

The other shortcoming of the WEM is that currently, and for the foreseeable future, most of the energy contracted in the wholesale market is through long-term bilateral contracts and not via a spot energy market. As a result, price discovery in the market is difficult and provides a barrier to entry since there is asymmetric information concerns for new entrants. This can increase the likelihood of retailers entering into 'stranded' energy supply contracts if market prices move downwards.

Lack of price discovery also implies that retailers and suppliers cannot reference a market price when attempting to reset prices in energy supply contracts, increasing the likelihood of litigation between parties to resolve contract price issues that may emerge.

These are substantive issues that will need to be addressed in order to ensure that wholesale water and wastewater markets are competitive.

If these two conditions are met, then it is likely that customers will benefit from retail competition between water and wastewater retailers.

This suggests a sequence for reforming previously regulated sectors, such as water and wastewater:

- Restructure vertically integrated water and wastewater providers to separate monopoly and competitive businesses.
- Ensure that the restructure enables sufficient players (buyers and sellers) in the wholesale water and wastewater markets to promote competition.
- Develop wholesale market mechanisms that facilitate short term and longer term trading and contracting.
- Ensure that water and wastewater retail prices reflect either LRMC (if the market is in balance), or if the market is out of balance, prices > LRMC to ensure balance. This will ensure competitive entry in the longer term.
- Open up retail competition to enable customers to choose their water and wastewater provider and test whether retailers can offer prices below the regulated tariff.

A critical learning from reform in the electricity and gas sector is for governments and policy bodies not to make promises about decreasing water and wastewater prices as a result of creating competition. Competition reform should be about promoting economic efficiency, achieving environmental outcomes and ensuring reliability of supply. Focusing on price reductions will limit the ability of a market to achieve these objectives, and in the end may result in steeper prices increases for customers than would have evolved from competitive market outcomes.

This has been the experience for Synergy having to implement substantial price increases for large industrial customers on 1 July 2007 (up to 18% increase in one year) after a period in which electricity tariffs were kept at artificially low levels for over a decade. Ensuring that regulated water tariffs reflect changes in supply costs, changes in environmental policies and reliability criterion ensure that prices move consistently overtime and provide more certainty to customers to enable them to undertake investments in water use efficiency (eg landscaping, change production processes).

RETAIL SERVICES

In many cases, as part of competition reform, state governments have created government owned energy retailers, such as Synergy (Western Australia) or EnergyAustralia (NSW). These government owned energy retailers (usually state based) then compete with private sector energy retailers for wholesale supply and retail market share. For example, Synergy competes with AlintaAGL in the WA electricity and gas markets. In many cases, these private retailers are not state based and operate throughout Australia (e.g. Origin Energy, AGL).

It is likely that a reform program would see the creation of a state based water retailer. A state based water retailer would have almost identical functions to an energy retailer, such as Synergy – billing, call centre operations, sales and wholesale purchasing.

One of the key advantages of the energy reform process has been the creation of organisations focused on their part of the value chain: generation, network and retail. The creation of Synergy as a standalone energy retailer has enabled us to focus on procuring energy at the lowest possible cost and ensuring that customers receives products and services that meet their needs. Synergy also acts as a 'customer advocate' with regard to issues impacting customers such as network reliability, financial hardship policies and environmental policies.

It is our experience that to be a successful water or energy retailer in a competitive market environment, an organisation would need to have the following key competencies[6]:

- Strong and Trusted Brand
- Low Cost To Serve
- Strong customer acquisition and retention skills
- Robust customer management capabilities and processes
- Strong wholesale procurement and risk management capabilities

Synergy is currently on the journey to become a 'brilliantly successful retailer' and has put in place a number of programs to achieve this objective by 2009.

Deliver the Customer Experience

To deliver the 'Synergy' experience to our customers through our customer focused products, people, processes, systems and communications. Building a long-term sustainable business that is commercially robust and capable of adapting to market changes, including full retail contestability.

Improve the Wholesale Position

Facilitate the entry of new generation capacity and energy to the market; and ensure that our existing contract position (vesting arrangements) with Verve Energy is optimised.

Optimise Business Efficiency

To ensure that Synergy's cost to serve is competitive with other energy retailers and that the business has the systems and processes that ensure market compliance.

Key to the success of our business will be to put in place a new IT platform that will be required to:

- Manage customer interactions – sales and service
- Consolidate gas and electricity bills
- Manage customer contracts, eg start and end dates, indexation etc
- Receive meter data from market operations
- Manage customer transfers between energy retailers.

[6] Adapted from The Boston Consulting Group, Queensland Energy Structure Review, Final Report, March 2006.

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