Australia: Water and Wastewater Treatment

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Date (04/2008)

Summary

Australia has a population of 21 million, and over 90 percent of Australians are connected to a main water supply. There are approximately 300 urban water utilities in Australia. The largest 22 utilities service about 70 percent of the population. The smallest 200 utilities collectively service 13 percent of the population, which is less than the number of customers of Australia's largest utility – Sydney Water.

In addition, approximately 85 percent of the population have access to more than 700 community sewage treatment plants. Nearly half of these are based on biological filters, about 170 are lagoons, and 45 are based on primary treatment. Most new plants are implementing activated sludge processes.

The demand for water and wastewater treatment equipment is valued at USD1.26 billion and is conservatively estimated to be increasing by five percent annually. The U.S. is believed to have the largest share of the import market, but other key suppliers include Germany, Japan and the U.K.

Population pressure has traditionally been the key driving force behind the demand for water and wastewater treatment equipment. However, since 2002 much of Australia has been gripped by a severe drought which has threatened existing water supply sources. Governments at all levels are now seriously exploring desalination and other water and wastewater recycling technologies as the value of water as a resource continues to rise.

Market Demand

Australia spends an estimated USD4.2 billion on the water and wastewater treatment sector. Water collection and distribution accounts for about 70 percent of this spending. Product quality and treatment accounts for 30 percent of spending. The direct purchase of capital and equipment makes up 30 percent of total spending.

The biggest impact on the Australian water and wastewater sector has come from a severe drought which began in 2002. Economists cite the persistent drought as shaving almost one percent off GDP growth. The drought has affected the farming industry and regional centers and driven numerous farmers across Australia into financial difficulties. Major cities have also been faced with serious concerns over uncertain water supplies. Governments - at the national, state and local levels - are grappling with policies and strategies aimed at securing Australia's future water supply.

Within this climate, the potential use of recycled water is gaining serious consideration. At present, almost all of Australia's key industry sectors currently source water from the same catchment areas used to supply households. Small projects designed to supply water to industries are already either in operation or being developed while some major projects are now being considered. As the value of water increases industries that are major users of water will find it more feasible to treat their own wastewater internally for re-use. There is an opportunity for cost effective wastewater treatment systems.

Recycled water is also expected to impact households. Over 50 percent of water consumed by households has outdoors or toilet applications. Some new housing developments are incorporating plans for 3rd pipe reticulation to allow for recycled water to be used for these types of applications.

Significant expenditure by the water authorities is continuing in the traditional purchase areas of pipelines, storages, clean-up projects, pump stations and treatment plants.

Companies are planning/considering the following projects:

Company	Value USD millions	Project
Wyong Shire Council	62	7,000 Megaliter Desalination Plant in Gosford
Melbourne Water	250	Upgrade of Eastern Treatment Plant
Gold Coast City Council	66	Raising the Hinze Dam, Stage 3
BHP Billion	250	Seawater Desalination Plant in Whyalla, SA
United Utilities	365	Desalination Plant to Esperance Goldfields, WA

Market Data

Table 1: MARKET FOR WATER/WASTEWATER TREATMENT EQUIPMENT (US DOLLARS MILLIONS)

	2005	2006	2007
Total Market Size	1,173	1,235	1,300
Total Local Production	352	370	390
Total Exports	53	56	59
Total Imports	874	921	969
Imports from the U.S.	131	138	145

The above figures are unofficial estimates.

Best Prospects

The sewerage systems in most of Australia's major cities are old and in many cases overloaded. There are problems with water leakage and pipeline failure. Trenchless technology for pipeline replacement and non-destructive technology designed to detect and anticipate leakages and failures is becoming more important.

Demand for smart metering technology could expand through the development of 3rd pipe reticulation designed to allow for the use of recycled water. For the most part, water pricing in Australia has been based on simply covering the costs of production. As more intricate pricing structures begin to develop it may be important to implement meters that allow for remote measurement as well as peak/off-peak measurement.

Best prospects also exist for:

- Biofiltration systems.
- Presses for conversion of water or sludge waste.
- New oxidation systems for the removal of chemicals from industrial wastewater.
- Filtration equipment for industrial waste applications.
- Flowmeters for wastewater measurement.

Key Suppliers

Some of the key suppliers to the industry include:

Veolia Water Systems
www.veoliawaterst.com.au

GE Betz Pty Ltd
www.gewater.com

Environmental Group Limited
www.environmental.com.au

Orica Watercare
www.orica.com

Aquatec-Maxcon
www.aquatecmaxcon.com.au

Prospective Buyers

The Water Services Association of Australia (WSAA) estimates that there are approximately 300 urban water utilities and has grouped utilities into the following three categories:

- 22 large utilities (servicing >50,000 properties each), which form the core membership of the WSAA and collectively service about 70 percent of the Australian population.
- 71 medium utilities or non-major urban utilities (10,000-50,000 properties) servicing 17 percent of the population.
- 200 small utilities servicing 13 percent of the population. These utilities collectively have less customers than the largest utility in Australia – Sydney Water.

Responsibility for running water utilities falls with the various state and local governments. The Federal Government, except through legislative influence, plays no direct role in the management of public utilities. The largest utilities are Sydney Water in New South Wales, Water Corporation in Western Australia, Yarra Valley Water in Victoria, South Australian Water in South Australia, South East Water in Victoria, and Brisbane Water in Queensland.

On the industrial side demand for water and wastewater treatment systems is coming from:

- Mines. ie. Gold and copper mines which require systems for main washdown areas.
- Wool scour mills ie. to treat wool grease.
- Steel mills.
- Pulp and paper mills.
- Breweries.
- Petrochemical plants.
- Chemical and pharmaceutical plants.
- Abattoirs, feedlots and canneries.
- Food and beverage manufacturers.
- Retail centers.

Market Entry

There are three channels by which water and wastewater treatment technology reaches the end-user:

- The utility or end-user appoints an environmental management or consultancy firm. This firm is often commissioned to first undertake an environmental audit or risk/impact assessment and then to make recommendations for the best technology to be used.
- Alternatively, and depending on the size of the project, the end-user will allocate the contract to an environmental engineering firm or contractor capable of installing turn-key facilities. The engineering firm will then be responsible for sourcing the technology either directly from overseas or through local suppliers. Government owned utilities purchases equipment directly from the local manufacturer or joint venture partner/representative.

- Private end-users usually maintain a preferred tenderer list in which certain suppliers, consultants and contractors will be invited to bid for the project. State government owned utilities are required to adopt a policy of open competition among suppliers and usually call for tenders through general media channels.

In addition to these three established channels, there is now a growing trend towards the outsourcing of sewage and wastewater treatment facilities previously run by government utilities. As a result there are some opportunities to supply equipment to major civil engineering and construction companies who are bidding for build-own-operate type treatment plants.

U.S. exporters may consider employing the following market entry strategies:

- Appointing an agent or distributor.
- Manufacture under license. Australian businesses have in the past been particularly receptive towards this arrangement because it overcomes the prohibitive and high risk costs associated with Research and Development.
- Establish a Joint Venture. Various forms of partnerships have not been widely used by U.S. firms in this area. Partnerships have been used by French, U.K. and German companies seeking to bid for water and wastewater treatment projects.

The standard forms of trade finance are all prevalent and widely used in Australia. In the private sector, bank and institutional financing is available. Historically, however, the banking sector has not been a major source of capital for small startup companies investing in the development of new technology.

The method, timing and arrangements for payment are a matter for negotiation between the U.S. exporter and Australian customer. The agreement reached will depend on the relative bargaining strengths of the two parties, the creditworthiness of the buyers and the financial resources of the seller. Generally, however, payment terms of between 30-60 days are considered the norm for small-to-medium consignments and up to 90 days for large volume purchases. The method of payment is usually by letter of credit or sight draft.

Market Issues & Obstacles

In 2005 Australia and the United States enacted a Free Trade Agreement (FTA). Duties on more than 99 percent of tariff lines, including water and wastewater treatment equipment, have been eliminated. Prior to the FTA, the maximum general tariff on imported water and wastewater treatment equipment was five percent.

Both imported and locally manufactured equipment are subject to a Goods and Services Tax (GST). The GST is a broad-based tax of ten percent on the supply of most goods and services consumed in Australia. It is akin to the value-added tax systems in Canada and Europe.

It is also important to note that foreign companies providing consulting and other services specifically within the market are required to register for an Australian Business Number (ABN). By registering for an ABN, the Australian Tax Office is able to ensure that the Australian customer pays GST on the service it receives. U.S. firms who are exporting products to Australia (rather than providing services in-country) do not need an ABN number.

In 2006, a new certification scheme known as Watermark was introduced. The scheme requires that water supply, sewerage, plumbing and drainage goods be tested and certified for use in Australia. More information on the scheme can be found at: www.watermark.standards.org.au

Trade Event

Name: Enviro 08 Conference and Exhibition
Date: May 5-7, 2008
Location: Melbourne Exhibition and Convention Centre
Website: http://www.enviroconvention.com.au

Resources & Contacts

Australian Water Association (AWA)
http://www.awa.asn.au

Environment Business Australia (EBA)
http://www.environmentbusiness.com.au/

Irrigation Association of Australia Ltd
http://www.irrigation.org.au

Stormwater Industry Association
http://www.stormwater.asn.au/

Water Industry Operators Association Australia
http://www.wioa.org.au/

For More Information

The U.S. Commercial Service in Sydney, Australia can be contacted via e-mail at: john.kanawati@mail.doc.gov; Phone: 61-2-9373 9207; Fax: 61-2-9221 0573; or visit our website: www.BuyUSA.gov/Australia

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