WATER SERVICES
ASSOCIATION OF AUSTRALIA

Productivity Commission: National Policy Competition Analysis

6 June 2025

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Water Industry Submission: Productivity Commission National Policy Competition Analysis

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1. Introduction

The Water Services Association of Australia (WSAA) is the peak body that supports the Australian urban water industry. Our members provide water and sewerage services to over 24 million customers in Australia and New Zealand and many of Australia's largest industrial and commercial enterprises. WSAA facilitates collaboration, knowledge sharing, networking and cooperation within the urban water industry. The collegiate approach of its members has led to industry wide advances on national water issues.

The Water Sector values the opportunity to provide input to the identified reforms of the Productivity Commission of occupational licencing, international standards and other competition reform options.

2. Occupational Licensing

The Water Sector supports the intent of Occupational Licensing to enhance the portability of skills across State and Territory borders. The industry is currently experiencing staffing shortages, particularly in regional areas. The sector requires substantial investment amidst a constrained talent pool and productivity slowdown. The Queensland Water Directorate (qldwater) published their 2022 Industry Workforce Snapshot which highlighted that Water Plant Operator Shortages were the highest vacancy rate across respondents at 15% (Workforce Composition Snapshot Reports (qldwater.com.au). The NSW Water Directorate have also identified that skill shortages are one of regional NSW's most significant strategic challenges.

Water and Wastewater Operators are not the only critical roles within our sector with Engineers, Project Managers, Procurement Specialists, Information Technology, Water Planning/ Modelling, Finance and Energy roles also identified as essential to the ongoing provision of safe, reliable water and sewerage services (WSAA Critical Skills Survey 2023). In a recent survey of WSAA member organisations, just over half had relatively low confidence levels in 6-10 years to deliver business objectives with current skills and capabilities.

Creating an inclusive work environment and fostering a diverse workforce are essential to meeting the water sector's challenges. As the 2025 WSAA Report 'Belonging: Diversity Equity and Inclusion in the Water Sector' highlights, actively broadening talent pools is crucial to addressing existing and future skills gaps and the ongoing challenge of a predominantly male and ageing workforce.

Enabling the portability of skills will help improve the availability and better enable the assessment and employment of suitability skilled employees.

3. International Standards

3.1 Overview

The Water Services Association of Australia is a Standards Nominating Organisation, within involvement in the development of over 70 national standards. We also run a Product Appraisal process for assessing products that are high volume and high risk for the water sector and that can be assessed against National or International Standards.

We agree with the potential benefits from adopting and harmonising with international standards, but we also agree there are potential situations where international standards may not address specific Australian risks or objectives. Our 30-year experience in working with standards that are applicable to the water sector has been that the current process of using national experts to assess international standards and determine modifications required to address local risks and conditions has led to an overall high-quality level of standards for Australian water businesses. the process of local expert evaluation via a Standards Australia Technical Committee prior to adoption is essential, with additional oversight and enforcement of conflict-of-interest issues within committees.

On this basis we do not believe that the Australian water sector should be prioritised for reform because we have been efficiently adopting and modifying international standards to achieve the best sector and customer outcomes by ensuring alignment with local conditions, whilst meeting stringent safety and quality requirements.

We also acknowledge that Streamlining regulations which call up standards is vital. In addition, it is important to ensure a timely response to needs for standardisation through Standards Australia. Maintaining and enhancing this capacity is essential to enhance the adoption of innovative technologies through the appropriate technical review of standards and the ability to reduce the time to introduce new standards.

3.2 Impacts from a lack of harmonisation

There should not be barriers to international adoption where this is appropriate. Australian water businesses use international products and so there is benefit in just adopting international standards where these are suitable. This approach can help minimise purchasing costs depending on existing production markets (refer below for an example of where the use of a unique Australian Standard does not negatively impact the cost of cast iron water pipes).

3.3 Barriers to greater harmonisation

In considering harmonisation it is essential to consider local risks including customer safety, water supply reliability, climatic conditions, and compatibility with historically used materials. This is particularly important given that the lifecycle of many water assets is over 100 years.

One of the largest and most important standardisation areas for the water sector are buried water and wastewater pipelines, with a total economic value of over $160 Billion. Whilst there are ISO standards for steel oil and gas pipes, many of their requirements would preclude the manufacture of pipe in Australia. Additionally, the manufacturing processes used for oil and gas pipes mean they are not able to meet the straightness, ovality and end dimension requirements necessary for water pipe use in Australia, which use different linings and a range of pipe connections to ensure appropriate safety and reliability. For example, ISO standards specify different outside diameters for pipes and fittings compared to Australian standards. Pipes with different outside diameters are not inherently compatible and require special items for connection, increasing the overall cost for implementation. At present there is no suitable ISO replacement for AS 1579.

The internal coating materials used for water and wastewater pipes are similar. There is no ISO equivalent to the prime coating standard used in Australia, AS 4321. ISO does have coating standards for oil and gas pipelines, but those coatings are not applied in Australia, nor are they appropriate for water pipelines. Additionally, the ISO requirements do not provide the performance and longevity required in Australia for such high value infrastructure pipelines unless significant modifications were applied. For these reasons AS 4321 was recently revised, as no ISO equivalent could be used.

Another primary concern for the water sector is the historic context of buried infrastructure. For example, if we look at cast iron pipes. These were traditionally designed based on British Standards. In the mid-1970's a review was undertaken to determine the ability to align with ISO standards.

At that time the UK chose to amend their standards and specifications for cast iron pipes and associated products to adopt a hard metric conversion to match ISO and European dimensions. Australia made a decision not to adopt hard metric for its cast iron pipeline components for use in the water industry due to the high costs associated with conversion. Pipe outside diameters for cast iron pipes remained the same and the dimensions were designated as a "soft metric". Associated fittings and valves continued to be manufactured to suit pipes with imperial (soft metric) outside diameters.

There are currently numerous suppliers of Australian Standard pipeline components, mostly from China and India, so tooling is well established. The cost of Australian Standard pipeline components is similarly priced compared to ISO Standard pipeline components.

Where ISO standards do not impact on Australian dimensions they are generally adopted and referenced within Australian standards. The Australian Standards relevant Committees maintain a mirror relationship with ISO Standards Committees to adopt their specifications wherever practical. For example, the ISO Standard for zinc coating (ISO 8179-1) and seal coating (ISO 16132) for ductile iron pipes is specified in Australian Standard AS/NZS 2280 *Ductile pipe and fittings*. In addition, requirements for DN 900 to DN 2600 ductile iron pipes and fittings in AS/NZS 2280 are given in ISO 2531.

Additionally, WS-016 and WS-022 Standards Committees that deal with cast iron pipe fittings and valves have historically contained expert representatives from both manufacturers and users. The equivalent ISO Standards Committees typically contain representatives from manufacturers only. Often content is adopted to satisfy the manufacturing representatives interests, which leads to the lowest common denominator. The Australian system of mixed representation has therefore led to superior technical standards.

3.4 Additional harmonisation considerations

The current processes within Standards Australia (SA) do promote harmonisation with international standards. However, there are two SA processes that could benefit from modification. These are the assessment of the need to adopt an international standard and the process to commence the modification of an Australian standard.

International standard publications are presented to SA Committees for adoption consideration. However, the reasons for not adopting are not always transparent and it is suggested that a refusal to adopt and international standard should have a reasonable technical or cost/benefit analysis. At present our experience with the refusal does not have these requirements. The current process could be enhanced by ensuring these requirements.

While ISO standards provide frameworks and guidelines for sampling and testing, they do not typically include a fixed, universally applicable schedule of minimum sampling and testing frequencies. Instead, ISO standards offer principles and procedures that can be adapted to specific contexts, regulations, and industry needs.

Performance requirements in a Standards have to be readily verifiable by referenced test methods, with clear distinction between design and performance type testing, and production and installation quality control testing. A schedule of minimum sampling and testing frequencies have to be developed for each product Standard to provide a baseline for demonstrating compliance with the Standard in the absence of third-party product/installation certification. 'Methods of Test' Standards and appendices have to detail the relevance and the principle of the test method, as well as the test apparatus.

There would also be benefit in streamlining the process for stakeholder engagement submissions for modification to an Australian standard based on international standard modifications. The current process requires a detailed submission with significant time and resources required to develop the proposal from the lead private organisation. This is then assessed by stakeholders over a period of several months before it can move to a vote to proceed. Embedding requirements for the stakeholder notification in more detail could streamline this process.

Separately, when adopting international standards, it is also important to understand the links to other Australian Standards, particularly those that are included under regulation. An example is Glass Reinforced Plastic (GRP) pipes, which are manufactured for the Australian water sector market to meet the requirements of ISO 23856:2021 for water, drainage or sewerage applications. The publication of ISO 23856:2021 combined and replaced ISO 10639:2017 (the basis of AS3571.2) and ISO 10467:2018 (the basis of AS3571.1).

However, Australian drinking water pipes have to meet the Australian water quality compliance requirements in AS/NZS 4020. There are also additional needs to enable compatibility with historically implemented buried pipes including acceptable levels of defects, the need for elastomers to comply with AS

1646 (another current Australian Standard) and preferred external diameters for Australia (and associated clauses). Nevertheless, water utilities are free to choose ISO sizes, which is why only the AS external diameters that are different to ISO external diameters are listed. To address Australia variations required for adoption of the ISO 23856, WSAA developed a specific Product Standard - *WSA PS 219 Glass reinforced thermosetting plastics (GRP) pipes and fittings for pressure and non-pressure applications – Drinking water, non-drinking water supply and sewerage*. This new Specification is used by water utilities to enable compliance with existing standards and benefit from integration with the ISO standard.

4. Other competition reform options

We do not have any specific additional competition reform options from the water sector.

5. Contact

WSAA welcomes the opportunity to discuss this submission further.

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