5 June 2025

PLUMBING INDUSTRY CLIMATE ACTION CENTRE

Building the Plumbing Workforce of the Future

National Competition Analysis 2025
Productivity Commission
Locked Bag 2, Collins St
East Melbourne VIC 8003

Via Email: ncp@pc.gov.au

National Licensing for Selected Occupations and Adopting Overseas Standards

Thank you for circulating the recent Productivity Commission Paper, highlighting the work being commenced by the Commission about the potential for national licensing in selected occupations, and calling for submissions from stakeholders.

The Call for Submissions from the Commission asks stakeholders to consider several factors including which occupations are best suited to a national licensing scheme; why previous attempts at a national licensing scheme, such as the National Occupational Licensing Scheme (NOLS), did not succeed and what benefit would a national licensing scheme provide over an expansion of the Automatic Mutual Recognition scheme (AMR).

This attached submission is from the Plumbing, Heating Ventilation, and Air Conditioning (HVAC) and Fire Protection Industry (the Industry) as represented by the Plumbing Industry Climate Action Centre, the Master Plumbers and Mechanical Services Association, the Plumbing and Pipe Trades Employees Union, the National Fire Industry Association, the Air Conditioning and Mechanical Contractors' Association, the International Association of Plumbing and Mechanical Officials and the Association of Hydraulic Services Consultants Australia.

Industry is broadly supportive of the objective of developing a national licencing framework to plumbing HVAC and fire protection work in Australia. There could be considerable worker mobility and other benefits from a national occupational licensing system for plumbing and related occupations. Under current arrangements there are licensed plumbers who need to hold an individual licence in every State of Australia and New Zealand and must pay licence fees each year to each Regulator. This situation is clearly inefficient and could be improved. This is particularly the case in "cross border" locations where plumbers in their normal course of operation find themselves working in multiple jurisdictions requiring, in most cases, separate licences.

Industry strongly holds that a national licensing model would make sense and could be effective if there was an existing level of regulatory harmonisation across the States and Territories, upon which the national licence could be based. The root problem is that the requisite level of regulatory harmonisation across jurisdictions does not exist.

The lack of national regulatory harmonisation was the major roadblock when the NOLS proposal was under consideration over a decade ago and that situation has not significantly changed. Whilst there are some areas of consistency and convergence (for example, core elements of plumbing like water supply, sanitary and drainage), there are also significant differences and gaps. Over a decade on from NOLS, the State and Territory regulatory schemes for plumbing and fire protection work still differ considerably in terms of the:

- Broad regulatory approach adopted in jurisdictions (self-certification versus staged inspections).
- Lack of direct alignment and consistency of scope of licences across the various streams of plumbing and fire protection work in the different jurisdictions.
- Licensing qualification criteria which apply (some jurisdictions require additional pre-licence competency verification steps such as exams, others do not).
- Different approaches individual jurisdictions take to addressing the risks associated with different plumbing activities (for example, stormwater drainage is regulated in some jurisdictions and not others).

In the absence of a platform of regulatory harmony, there is a risk that the pursuit of common ground reduces the national licencing exercise to a lowest common denominator approach. This could have the effect of lowering standards, increasing community risk and driving up sector costs (remediation and repairs). The Industry is moving at a great pace, with new products and innovations entering the sector all the time. Currency of skills is critical to being able to embrace, utilise and take best economic and environmental advantage of these new and emerging products and systems.

Any moves which result in a lowering of entry level requirements, or a narrowing of licensed work scopes to align with the lowest common position upon which jurisdictions can agree, could leave the workforce under-skilled. This could compromise Australia's ability to meet the challenges of decarbonisation (under skilled workforce), achieve national housing targets and mitigate and respond to climate change and its impacts.

From the perspective of seeking productivity improvements, the Commission could consider whether the right national policy and regulatory architecture and systems are in place to drive national Industry harmonisation and capture all the associated productivity benefits.

The Australian Building Codes Board, whose responsibilities include "regulatory reform in the construction sector" has not made significant progress in driving national harmonisation. Other national bodies which have national remits could, but have not, taken steps to build a platform for national licencing by driving regulatory harmonisation. The Building Ministers' Meeting , which oversees policy issues affecting Australia's building and construction industries has not sought to tackle regulatory harmonisation. Standards Australia, for example, or quasi or "splinter" regulatory bodies like the Australian Refrigeration Council (ARC) tend to be focussed on their own operations, including commercial operations, rather than on opportunities to streamline the national regulatory landscape.

Industry is strong in its view that there is real potential and opportunity to improve productivity through greater regulatory harmonisation. Industry has seen the national approach successfully adopted in the training sector, where there is a national training framework in place with students in all jurisdictions completing the same entry level qualification of a Certificate III in plumbing, fire protection or HVAC etc. However, driving up the level of regulatory harmonisation will require a level of leadership and policy intent which has not been evident to date.

Industry also notes that the Commission has also been asked by the Government to examine "adopting international and overseas standards in regulatory frameworks and harmonising regulated standards across Australia, in priority sectors identified by Governments". Whilst there may be efficiencies to be gained, especially in terms of product manufacturing from a more harmonised system of international standards, thorough Industry consultation would be critical before any changes were made to Standards and how they are referenced in the Australian Industry.

Currently Australian Standards are nationally recognized and called up by each jurisdiction via the National Construction Code. The broad adoption of international standards could have significant legislative, regulatory and compliance and practical industry operational implications. The adoption of any Standards beyond those already called up by Australian Legislation would need to be considered carefully on a case-by-case basis.

Should you wish to discuss this submission further, please do not hesitate to contact me via email:

Yours sincerely

Plumbing and Fire Protection Industry Submission

National Licencing for Selected Occupations

From a Plumbing, Fire Protection and HVAC Industry perspective, there are some critically important points of context to keep in mind when considering a national licencing model. These include:

1. The Plumbing, Fire Protection and HVAC Industry is critical to the well-being of the Australian community.

1.1 Community Health and Safety

Plumbing, Fire Protection and HVAC work is, by its nature, extremely high risk. Well-functioning and effective plumbing and fire protection systems are the community's first and often only line of defence against a range of hazards and risks. Professionally installed and maintained systems keep the public safe from a range of diseases, such as legionella and toxic and volatile substances like gas and carbon monoxide. The health of the community, the amenity of the built environment and our collective ability to manage water and use energy efficiently, are all inextricably linked to and dependent upon, high quality, safe and reliable plumbing and related systems.

The primary way to ensure the safety of plumbing and related systems is to ensure the competence of those who install and maintain, service and test these systems. This is the key reason occupational licencing/registration exists in the Industry. Occupational licence/registration is supported in each State or Territory by additional compliance measures including inspection, audit or other means to ensure that the plumbing system is both fit for purpose and of a standard that protects the health and welfare of the broader community.

Australia maintains the highest levels of sanitary drainage and water supply requirements in the world and is recognised internationally for its work in water efficiency, re-use and work in onsite treatment of sanitary waste and stormwater to achieve environmentally sound disposal. Fire sprinkler systems and other protection measures, installed by trained, qualified and licensed fire protection practitioners save countless Australian lives every year.

1.2 Enabling Safe Decarbonisation

The skills of the Industry are critical to achieving Australia's decarbonisation objectives. Whether it is gasfitters to decommission fossil gas systems, plumbers and HVAC professionals to install and commission heat pump hot water or air conditioning systems, Australia cannot transition its energy system and meet its emission reductions targets without the skills of the Industry.

The skills required of modern practitioners are increasing and changing all the time. As renewable energy increases its share of the energy generation mix at the expense of coal and gas, the nature of the work of plumbers and gasfitters is also changing. Solar heat pumps for hot water services are replacing gas fired hot water systems and reverse cycle air conditioners are replacing gas heating systems. Industry is seeing areas of rising demand, like HVAC skills, which are key to the safe uptake of new technologies such as heat pumps, smart control systems and low Global Warming Potential (GWP) refrigerants.

Industry is also seeing rapid and major changes to the products used and the way it operates on and off site, eg prefabricated plumbing products and "pods" are increasingly being incorporated into buildings, shifting plumbing work from on-site to a factory floor. Industry is just at the beginning of a learning journey about AI, which has the potential to transform the Industry in a range of ways, from how buildings and plumbing systems are produced and constructed, to how training is delivered. In this dynamic space, the currency of training and the maintenance of standards has never been more important.

Maintaining and where possible improving high Industry standards (with high quality training, up to date licence scopes, effective regulatory oversight etc) is also critical when it comes to ensuring community safety in the energy transition. The energy transition brings risks, some new some enduring. The rapid uptake of heat pump hot water systems brings with it a series of risks, for example, heat-pump water heaters often store water below the 60 °C "kill zone" due to new refrigerants being introduced, elevating legionella risk. The shift to low-GWP refrigerants also introduces increased risk of flammability and much higher working pressures. Structural loading and building-integrity risks are created due to extra mass from commercial heat pump chillers, condensers, or rooftop PV, which can exceed original roof live-load allowances.

1.3 Meeting National Housing Targets

The National Housing Accord commits all Australian governments to a build 1.2 million new homes over five years from mid-2024. Achieving this goal is dependent on a range of factors, one key one being access to a skilled workforce. Plumbing, HVAC and fire protection skills are arguably, amongst the most critical skills required.

The housing shortage is a national challenge. Whilst more acute in some regions than others, demand for more housing exists in all jurisdictions. Moving workers from one jurisdiction to another has limited national productivity benefit in that scenario. The critical productivity challenge with respect to housing (and infrastructure, and the energy transition – which are all calling on similar skills at the same time) is to grow the number of skilled workers capable of delivering. This means both augmenting the skills of existing practitioners and training many more new entrants to the sector.

To produce more skilled workers, and to ensure productivity in the construction sector, it is critical that the training sector which underpins it, is financially viable and sustainable. The construction sector needs the Vocational Education and Training (VET) sector as a whole to be viable, not just TAFEs. Industry Registered Training Organisations (RTO) and other independent providers are integral to addressing skills shortages and delivering high-quality training aligned with Industry needs.

The independent skills training sector plays a critical role in workforce skilling, reskilling, and upskilling. Recent data from the National Centre for Vocational Education Research (NCVER, September 2023) showed that in 2023 5.1 million students were enrolled in nationally recognised VET training. 77.6% of students were enrolled in nationally recognised training at private training providers; 15.1% at TAFE Institutes; with the remainder enrolled with community education providers, enterprise providers, schools and universities (total VET students and courses 2023). In many instances, Industry RTO's like PICAC achieve better outcomes than TAFEs. Independent RTOs consistently deliver superior outcomes, including higher student and employer satisfaction, better completion rates and stronger employment outcomes.

Not-for-profit Industry RTOs are a key part of the broader VET sector and State Government level policy has placed them under additional pressure. It is important, in Industry's view, that State and Territory level training and funding policies do not run counter to or limit national objectives relating to skills development. With rising inflation over recent years, the costs of delivering training (eg staff, resources, insurance, energy etc) have increased significantly and State and Territory level subsidy rates have not met those increases.

Ensuring there are adequate training resources to accommodate upskilling demand is very important, especially where there is a licensing outcome attached to the upskilling training (fire protection commissioning and certification for example). A shortage of trainers can result in bottlenecks and waiting lists, limiting productivity. Given how critical plumbing, HVAC, fire protection and related skills are to the energy transition and to the economy and community more broadly, it is important that State-based training funding enables independent Industry RTOs to continue to deliver specialised training and key skills in these areas.

1.4 Climate Change Adaptation and Resilience

As rainfall patterns change, communities in Australia are experiencing and will continue to experience, periods of extreme flooding and water scarcity. The collective ability of Australians to capture, store, transport, recycle, re-use, and even create water (de salination) has never been more important. Effective plumbing and drainage systems are also critical to managing and recovering from flooding related crisis events. To take best advantage of the exciting innovations in water management to recover from flood events and to be able to utilise new products and the ever more efficient systems being developed every day, requires current up to date skills and that requires training.

In green energy, plumbing and gasfitting skills are and will increasingly be, the key to our collective ability to harness and maximise new energy sources and take full advantage of the potential of green hydrogen and biogas.

The economy, our health, our environment, the integrity and safety of our buildings and the vibrancy and vitality of our cities and regions are all plumbing dependent.

2. Scopes of Work are not Always Directly Comparable.

Despite having a nationally recognised training package delivering qualifications that are largely the same in every State or Territory, differences exist between the defined scopes of work across jurisdictions. Some works, such as roofing and stormwater, which is regulated work in Victoria, are not within the scope of regulated work in other jurisdictions. An occupational licence may be required to do that work in other jurisdictions, but not necessarily a plumbing licence/registration. Fire protection work is registered work in some jurisdictions (Victoria and Queensland), but not in others (Western Australia).

There is also a lack of regulatory comparability with respect to mechanical services and air conditioning work across the jurisdictions. Medical gas work for example, is regulated work in some jurisdictions and not others, as are other specialised aspects of plumbing, like backflow prevention.

There are a range of historical and practical reasons for these differences. They include climatic and geographical differences between northern States and southern States in terms of temperature, rainfall patterns, leading to different stormwater and water management approaches in different jurisdictions.

3. Different Jurisdictional Regulatory Models

Although the various licensing systems all act to protect the health and safety of the people within each jurisdiction, they are often incompatible with each other eg in Victoria, plumbers work under a system of self-certification, a requirement to lodge certificates and hold appropriate insurance cover. In Victoria the Regulator (Victorian Building Authority, (VBA) provides oversight on plumbing practitioners and audits and inspects a proportion of plumbing work each year taking a risk-based approach.

If non-compliant work is identified, a rectification notice is issued to the licensed plumber responsible who must rectify that work at no cost to the consumer. This differs from other jurisdictions which assume compliance responsibility for most of the work carried out by plumbers and often has a separate entity (separate to the licensing or registration body) responsible for this eg in New South Wales, Local Councils assume some of this responsibility for certain types of plumbing work.

Another difference with other jurisdictions is that Victoria has the broadest scope of regulated plumbing work, including work not regulated in other jurisdictions, such as stormwater drainage, metal roofing and above ground stormwater drainage, mechanical services, refrigerated air conditioning and all scopes of fire protection.

Whilst there are significant cross jurisdictional differences, there are also commonalties. For some scopes of plumbing work, including water supply, sanitary and drainage, there are few if any major differences between States. Work in these scopes is regulated plumbing work in all Australian jurisdictions (requires a licence) and is carried out in mostly the same way according to the same Australian Standards right across Australia. In the context of national licensing, an option to consider is whether a national plumbing licence restricted to these scopes may avoid some of the past roadblocks and have a better chance of success.

In other parts of the sector, there are also potential opportunities to identify areas of consistency which could underpin a national model. In HVAC for example, the potential exists to define three distinct work scopes (Refrigeration and Air Conditioning), mechanical services plumbing and duct installation, and develop consistent licensing scopes for each class of work. The NSW Building Reform Program is working towards this type of approach, which could be used as a basis for a national model.

4. AMR can be Effective if Risks Are Well Mitigated

In terms of the Productivity Commission's broad focus on improving worker mobility, Industry's view is that AMR, with sensible checks and mitigation measures, can be an effective and safe way forward.

These mitigation measures are mostly aimed at ensuring that regulating jurisdictions have sufficient knowledge about the people working under licence in their jurisdictions to enable them to be effective Regulators and for consumers to be properly protected. Risk mitigation is particularly important in the context of self-certification regimes, like Victoria, which has exempted temporarily several classes of plumbing, gasfitting and fire protection work deemed high risk from the full application of AMR.

Reflecting the significant AMR risks which attach to Australia's only self-certification regime, Industry advocated strongly throughout the deliberations around AMR's application in that State. Industry expressed its position strongly, that while supportive of the intent and principles of AMR, the safest way forward for these high-risk classes of work would be for AMR to be applied only to registered (as opposed to licensed) practitioners (Victoria).

This position recognises that cross border differences represent significant risks, which can be mitigated to some extent if AMR was restricted to worker level (registered) practitioners who work under the supervision of a licensed practitioner. This same principle could potentially be applied to national licencing ie the risks outlined above would be significantly mitigated if the national scheme was limited to those working under the supervision of a licence holder (registered).

When fully applied, mitigation measures will be critical to preserve community safety. These mitigation measures are mostly aimed at ensuring that regulating jurisdictions have sufficient knowledge about the people working under licence in their jurisdictions to enable them to be effective Regulators, and for consumers to be properly protected. While notionally check-in points have the effect of taking the "A" out of AMR to some extent, it is critical that a regulatory line of sight is retained so that Regulators can monitor compliance and consumers can have a level of protection. In Victoria, it is noted and supported that the additional proposed mitigation measures (to reduce the risks attached to the broad application of AMR as proposed) include intensifying regulatory oversight by prioritising interstate plumbers in the VBA audit and inspection programs; and provide comprehensive guidance to practitioners to support knowledge of Victorian requirements.

5. Insurance and Consumer Protection

As well as types and scopes of works, there are other differences between plumbing licences in Australian jurisdictions which are relevant in the context of national licensing and/or AMR and which create risks which need to be mitigated.

Insurance is a good example. All Licensed plumbers in Victoria are required to have mandatory insurance which provides them with comprehensive cover for both them and their clients. Victorian plumbers cannot be licensed unless they hold insurance cover against:

- Public Liability
- Defective plumbing work (Warranty)
- Trade Practices Liability
- Non-Completion of Work
- Completed Works.

In Victoria, before being eligible to be licensed, a practitioner needs to demonstrate to the VBA that he or she has a minimum:

- $5,000,000 Public Liability Insurance; and
- $50,000 Consumer Protection Insurance and/or $100,000 for Commercial.

This type and level of insurance is not compulsory in other States and Territories of Australia, (although many contracts will stipulate that plumbing professionals carry at least some level of Public Liability insurance).

If AMR is fully implemented as proposed as at 1 July 2027, the potential exists for practitioners from interstate working in Victoria with no, or inadequate, insurance coverage, which presents a significant risk for consumers.