30 Cromwell Street
Burwood VIC 3125
Australia

T. 1300 475 615
E. admin@amca.com.au
W. amca.com.au

6 June 2025

Productivity Commission
GPO Box 1428
Canberra City ACT 2601, Australia

RE: National Competition Policy analysis 2025 – Submission from the Air Conditioning and Mechanical Contractors' Association of Australia Limited (AMCA)

Dear Commissioners,

Thank you for the opportunity to lodge the Air Conditioning and Mechanical Contractors' Association of Australia Limited (AMCA) submission to the Productivity Commission's National Competition Policy analysis 2025.

AMCA represents the specialist mechanical-services contractors who design, install, commission and maintain the heating, ventilation and air-conditioning systems that keep Australia's buildings safe, healthy and productive. Our submission draws on the practical experience of these contractors nationwide. Our submission outlines practical, evidence-based recommendations to ease capacity constraints, lift on-site productivity, modernise licensing frameworks, streamline the adoption of trusted international standards, and strengthen the industry's long-term skills pipeline.

We would welcome the opportunity to meet with the Commission at your convenience to discuss any aspect of our submission in greater depth and to provide additional data or industry contacts that may assist the Inquiry's deliberations.

Thank you again for considering our perspectives. We look forward to supporting the Commission's important work.

Yours sincerely,

Scott Williams
CEO
Air Conditioning and Mechanical Contractors' Association of Australia Limited (AMCA)

Submission

National Competition Policy Analysis 2025

June 2025

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EXECUTIVE SUMMARY

Australia's construction sector is battling systemic productivity drag caused by fragmented regulation, uneven commercial practices and growing skills shortages. Drawing on the day-to-day experience of specialist mechanical services subcontractors, this submission outlines a reform package that would streamline regulation, unlock labour capacity and create fairer, more competitive project markets.

National, Competency-Based Licensing:
Replace eight separate state/territory licences with national credentials for three high-risk HVAC trades:

- Air-Conditioning & Refrigeration Mechanics (integrating ARCtick)
- Mechanical (Wet) Plumbers
- Duct Installers (new skill-set pathway underway)

- Develop Model Mechanical Services Licensing Act based on the ABCB National Registration Framework, mirrored by every jurisdiction. ARCtick and ACMA's national registration schemes demonstrate that uniform credentials can be issued, audited and enforced consistently across borders.

National Registration for Professional Engineers:

- Adopt Engineers Australia's National Engineering Register as the competency benchmark for building services engineers.
- Streamlines duplicate fees, CPD logs and insurance checks now required for cross-border projects.

International Standards Integration
Australia already adopts international standards through Standards Australia's ISO liaison committees.

- The priority is to speed drafting cycles—via targeted funding, digital tooling and contributor development—so standards stay aligned with global best practice, and free public access to any standard mandated by regulation

Other Competition Reform Options
Industry roundtables pinpointed commercial frictions that licensing alone will not fix. AMCA recommends:

- Nationally enforced harmonisation framework to align NCC commencement dates, training subsidies, safety rules and security-of-payment thresholds.
- Fair-contract reforms: 20-day payment terms on government projects, standard variation/escalation clauses and equitable risk allocation.
- Procurement overhaul:
  - Shift from lowest-price to weighted-criteria tender evaluation.
  - Wider use of pain-and-gain (target-cost/alliancing) contracts.
  - Mandatory post-completion performance reviews for future tenders.
- Early Contractor Engagement (ECE) protocols requiring specialist trades' input before designs reach 50 % completion.
- Clear regulatory pathway for off-site manufactured service modules, plus procurement incentives to accelerate uptake.
- National BIM-MEP-AUS standard mandated on public projects, backed by training and model contract clauses.

ABOUT OUR INDUSTRY

Heating, air conditioning and ventilation (HVAC) is a significant industry. It contributes over $8 billion to the Australian economy annually, has over 6,400 businesses, and employs over 18,900 people.

The services provided by these businesses are omnipresent in the homes, workplaces and public buildings occupied by the entire community, providing safe, comfortable, healthy, and productive spaces for people to live, work, and recreate.

These services include:

- Heating and cooling for comfort, well-being, and productivity
- Ventilation and indoor air quality
- Fire and smoke control systems
- Air purification for hospitals, laboratories, and other sensitive environments
- Climate control and air quality for commercial and industrial facility premises

Post-COVID, the importance of our industry has become even more widely recognised due to the HVAC systems' role in supplying the air we breathe. With people spending around 90% of their time indoors, the air supplied by HVAC systems is a critical factor in respiratory health, mental health and well-being, workforce productivity, and general quality of life.

The sector's importance is further emphasised by the fact that HVAC systems account for approximately 50% of a building's energy consumption. Indeed, in buildings with older or less efficient systems, HVAC can account for upwards of 75% of total energy usage.

CONSULTATION FOR THIS SUBMISSION

In preparing this submission, AMCA Australia has consulted the following groups:

- Our state-based advisory boards comprise business leaders from large, medium, and small mechanical contracting, services, and maintenance businesses nationwide.
- Our National Technical Working Committee comprises mechanical engineers registered under Various state-based registration Schemes.
- Our National Services and Maintenance Committee comprises technicians, site managers, and service managers.

These groups would welcome the opportunity to discuss any issues or views raised in our submission.

OPENING STATEMENT

The building and construction industry is a foundational pillar of Australia's economic and social development, underpinning the delivery of homes, schools, hospitals, transport corridors and the critical infrastructure that sustains communities and commerce. Yet the sector faces a complex constellation of systemic challenges eroding productivity and jeopardising long-term stability.

The Air Conditioning and Mechanical Contractors Association of Australia Limited (AMCA Australia) welcomes the opportunity to present this submission to the National Productivity Commission.

Our members operate predominantly at the subcontractor level in commercial and industrial construction markets across every state and territory. The perspectives offered herein are grounded in day-to-day project delivery experience, particularly in the mechanical services vital to modern buildings' performance, safety and energy efficiency.

AMCA members are routinely engaged at the intersection of design, construction, and ongoing maintenance. As such, they are uniquely positioned to provide insights into issues that inhibit workforce capacity, productivity, and business sustainability. These insights are informed by daily interaction with site-level disruptions, contractual and regulatory frameworks, and the cumulative operational pressures experienced by trade-based businesses.

Through this submission, AMCA seeks to identify the pain points that most acutely affect productivity from a subcontractor's perspective and make practical, industry-led recommendations to help create a more resilient, efficient, and future-ready national construction sector.

Throughout this submission, we will refer to "building services" to describe the integrated technical systems that make a building safe, healthy, and energy-efficient, covering mechanical services (often referred to as HVAC or HVAC&R), electrical and communications, fire protection, hydraulics, vertical transportation, and building-automation controls. While our analysis concentrates on mechanical services, the subset covering the design, installation, commissioning and maintenance of heating, ventilation, air-conditioning and refrigeration systems—the discipline AMCA represents—we acknowledge that every building-services trade involves high-skill, high-risk work and faces similar regulatory fragmentation. AMCA therefore endorses a competency-based national licensing framework for **all** building-services occupations, noting that the productivity, safety, and mobility gains set out in this submission for mechanical services would flow equally to the broader building-services sector.

OCCUPATIONAL LICENSING

A nationally consistent, competency-based licensing scheme for HVAC practitioners and engineers would cut red tape, lift labour productivity and strengthen industry capability by consolidating eight state and territory licensing rules into a single credential. By drawing on existing national assets—including the National Construction Code, ARCtick refrigerant-handling licence framework, the Australian Qualifications Framework and Engineers Australia's National Engineering Register—governments can move quickly while sidestepping the complexity that sank the 2013-14 National Occupational Licensing Scheme. Mechanical-services contractors routinely deploy a blend of high-skill trades—air-conditioning and refrigeration technicians, mechanical plumbers, duct installers, electrical workers and engineers—each currently subject to different jurisdictional requirements; this fragmentation imposes unnecessary compliance costs and hampers workforce mobility, particularly for firms operating across borders. Treasury's impact analysis for the National Electrical Licensing Scheme shows that collapsing multiple licences into one delivers substantial per-worker savings and wider economic gains; applying the same methodology to mechanical services highlights an equally strong case for urgent reform. With much of the analytical groundwork in place and workforce pressures intensifying, a national mechanical-services licence offers a timely, evidence-backed pathway to boost productivity, reduce regulatory duplication and enhance labour mobility across Australia's construction and building-services sectors.

Mechanical Services Technicians.

Australia's built-environment workforce is anchored by a cluster of high-skill, high-risk trades delivering building services work— electricians, refrigeration technicians, mechanical plumbers, duct installers, medical-gas fitters, fire-protection technicians, plumbers and others — that collectively keep modern buildings safe, healthy and energy-efficient.

Every one of these occupations already trains against national qualifications endorsed under the Australian Qualifications Framework, yet must still navigate eight separate state and territory licensing regimes that duplicate fees, paperwork and compliance audits. The result is an avoidable drag on labour mobility, business productivity and the speed at which major construction or disaster-rebuild projects can be staffed.

The Commonwealth Government has now recognised this bottleneck and, following broad industry and union support, has committed to designing a National Electrical Licensing Scheme (NELS) so electricians can work seamlessly across borders.

AMCA welcomes this reform and submits that the same logic applies—with equal or greater urgency—to the mechanical services trades that constitute the HVAC industry. These trades interact directly with life-safety systems (smoke control, legionella prevention), indoor air quality, and the decarbonisation agenda; fragmented licensing imposes real costs on builders and building owners while offering little additional public-interest protection.

Which occupations would be best suited to a national licensing scheme?

AMCA recommends that the initial national licensing scope for building-services trades encompass the following HVAC classes:

Air-Conditioning & Refrigeration Mechanic

- Air conditioning and refrigeration work is broadly consistent in scope across all Australian jurisdictions and is undertaken by practitioners who have completed a Certificate III in Air Conditioning and Refrigeration.

- National ARCtick Refrigerant-Handling Licence already provides Australia-wide accreditation for refrigerant work, but separate state/territory trade licences still govern installation and service activity.

- Consolidating these under a single national licence would align environmental compliance with trade competency and support net-zero electrification and cold-chain resilience.

Mechanical (Wet) Plumber

- Mechanical (wet) plumbing work — encompassing chilled-water, condenser-water, hydronic-heating — is largely uniform across Australian jurisdictions and is performed by practitioners who have completed the Certificate III in Plumbing (Mechanical Services stream

- Licensed in Victoria, Queensland, New South Wales and Tasmania, with other jurisdictions offering partial or no mechanical-plumbing licensing.

- A national credential would remove duplication while elevating uniform standards for life-safety pipework.

Duct Installer

- Duct installation presents some of the most significant safety and commercial risks in the HVAC industry due to factors such as working at heights, confined space, manual handling of large and heavy materials, potential exposure to hazardous substances, and the high cost of rework or delays caused by poor coordination or installation errors.

- A dedicated licence class is being introduced under New South Wales mechanical services reforms; Victoria offers a restricted “duct fixing” endorsement, and no specific licence exists elsewhere.

- Installation quality is integral to smoke spread control, indoor air quality and energy efficiency outcomes; defects are costly to rectify post-construction.

- National licensing would ensure a competent workforce as off-site prefabricated duct and riser modules become more prevalent.

The three licence classes outlined above span HVAC systems' installation, maintenance and compliance chain. With mapping direct to an Australian Qualifications Framework Certificate III pathway—Certificate III in Air-Conditioning & Refrigeration for RAC technicians and Certificate III in Plumbing (Mechanical Services stream) for mechanical (wet) plumbers, with work progressing on a portable skill-set framework for duct installation, which will complete the licensing suite. Refrigeration practitioners have already operated under the national ARCtick Refrigerant Handling Licence, a Commonwealth-run scheme that has provided uniform competency, audit and disciplinary arrangements across all jurisdictions since 2003. Building-management-system (BMS) control cabling linked to mechanical services is likewise covered nationally: the Australian Communications and Media Authority's Cabling Provider Rules create an accredited registration framework, with structured-cabling endorsements that explicitly include "integrated building management systems".

What would be the first steps towards a national licensing scheme for selected occupations?

Align national training package outcomes with licence scopes.

Two of the three proposed licence classes—Refrigeration & Air-Conditioning Mechanics (MEM & UEE Training Package) and Mechanical (Wet) Plumbers (CPC Training Package)—already hold fully endorsed national qualifications. Mapping their units of competency to a uniform licence matrix is an immediate, low-cost step.

AMCA is working with training package holders (BuildSkills and Manufacturers Alliance) to develop a nationally portable skill-set for the emerging Duct Installer stream.

Leverage the ARCtick model as a national pilot.

ARCtick already shows that a single, nationally recognised credential can be issued, audited and enforced uniformly across every jurisdiction, providing a proven blueprint for refrigeration technicians' competence, insurance and disciplinary tracking. A parallel precedent exists in the Australian Communications and Media Authority's Cabling Provider Rules, which underpin a national cabling-registration scheme with structured-cabling endorsements that explicitly cover integrated building-management systems (BMS) and other mechanical-services control wiring. Using the same licensing architecture—standard eligibility criteria, compliance checks and mutual disciplinary recognition—across the wider mechanical-services trades would let governments road-test national implementation in two proven regulatory environments before committing to full rollout, de-risking the transition while maximising workforce mobility.

Leverage the National Registration Framework to develop a Model "Mechanical Services Licence Act"

Governments should translate the ABCB's National Registration Framework (NRF) into a Model Mechanical Services Licensing Act, mirroring the successful approach taken with the Model Work Health and Safety Act. The NRF already sets out nationally-agreed scopes of work, core competencies and licence categories for safety-critical activities such as air-conditioning, refrigeration and medical gas systems. Enacting a single model Act—adopted or mirrored by each state and territory—would lock in those national scopes, giving practitioners true licence portability, while freeing local regulators to concentrate on auditing, compliance and safety-case management rather than duplicating licence assessments. Because the foundational technical detail is complete, jurisdictions can move

quickly, delivering immediate gains in consistency, workforce mobility and regulatory efficiency without starting from scratch.

Licensing Council

Establish a Building Services Trades Licensing Council comprising state and territory regulators, industry associations, unions and RTOs to agree on uniform scopes of work, mutual disciplinary recognition and continuing professional development standards.

Why did previous attempts at a national licensing scheme, such as the National Occupational Licensing Scheme, fail? How could a renewed attempt overcome the barriers to a national licensing scheme?

The 2008–2014 National Occupational Licensing Scheme (NOLS) was abandoned before full implementation. Five inter-related factors drove the collapse:

- State and territory political resistance. Jurisdictions were unwilling to cede regulatory autonomy and were concerned about potential transition costs.
- Cost and complexity concerns. Productivity Commission advice indicated that the proposed model risked adding administrative layers and costs for regulators and license holders.
- There was a lack of consensus on scope and governance. Ministers could not agree on which occupations would be covered or how the scheme should be administered, resulting in design paralysis.
- Misinformation and vested interest campaigns. Certain industry groups argued the scheme would erode existing standards or undermine commercial interests, amplifying political pressure to withdraw (ANZSOG case study, 2016).
- Not all stakeholder groups were included.
- Shift to state-based workarounds. As momentum flagged, states doubled down on mutual recognition tweaks, further eroding commitment to a single national statute.

Addressing these barriers in a renewed effort

- Build on existing national credentials (e.g., ARCtick, Australian Qualifications Framework) rather than creating a new bureaucracy from scratch.
- Keep the scope narrowly focused on high-risk trades such as mechanical services to demonstrate value before expanding.
- Establish a Building Services Trades Licensing Council with industry, unions and regulators to co-design the model and share implementation costs transparently.

What benefit would a national licensing scheme provide over expanding the automatic mutual recognition scheme?

AMR was intended as a quick fix, but its effectiveness erodes as states continue adding or revising licensing requirements outside the scheme. Key pressure points include:

- Diverging CPD obligations. Multiple jurisdictions are now rolling out mandatory continuing professional development (CPD) frameworks for mechanical services licensees, but the assessment periods, point systems and evidence requirements vary widely. Because CPD sits outside AMR's "substantially equivalent" test, practitioners must keep separate logs and apply for individual recognition or exemptions in each jurisdiction.

- State-specific scope expansions and new licence classes. States and territories are progressively adding or redefining services licence categories, and these diverging scopes of work sit outside AMR's "substantially equivalent" test. A prominent example is New South Wales, which introduced a distinct Medical Gas plumbing licence in 2023 and is now consulting on a dedicated Duct Installer class. Because other jurisdictions have yet to establish matching categories—or define equivalent scopes—each new class triggers a further exemption notice under AMR, shrinking the scheme's practical coverage and increasing compliance uncertainty for cross-border practitioners.

- Insurance and fit and proper person tests. Jurisdictions impose differing professional indemnity insurance thresholds and background check requirements for services practitioners. Because these conditions sit outside AMR's "substantially equivalent" test, practitioners must often arrange additional cover or undergo separate vetting processes when working across borders, further eroding the scheme's promise of seamless mobility.

As a result, workers still need to track multiple Acts, lodge notifications in each state and maintain duplicate logs of CPD, insurance and police checks. A valid national licence would:

- Provide one renewal date and one CPD ledger that all jurisdictions recognise.

- maintain a single scope of work description agreed by regulators, reducing the need for exemption orders; and

- publish one public disciplinary record, improving consumer confidence and reducing due diligence costs for head contractors.

Compared with this streamlined national model, expanding AMR offers diminishing returns and increasing complexity, particularly for safety—critical, rapidly evolving trades like HVAC.

How could the PC best quantify the benefits of a national licensing scheme?

A straightforward way to gauge the potential efficiency is to benchmark against the forthcoming National Electrical Licensing Scheme (NELS). Treasury's impact analysis for NELS shows that consolidating eight jurisdiction-based licences into a single national credential can generate substantial compliance savings per worker and unlock broader

productivity gains. Because HVAC trades face a nearly identical pattern of overlapping state licences and duplicated renewal processes, applying the same benchmarking methodology provides a robust, order-of-magnitude indicator of the benefits of national mechanical services licensing, without requiring fresh primary data collection.

The Commission can overlay these benchmark results onto its existing computable general equilibrium (CGE) framework, quantifying the labour productivity uplift that flows from removing regulatory fragmentation. This combined approach offers a holistic and defensible measure of fiscal savings and macroeconomic gains while avoiding premature precision that detailed costings would entail at this policy design stage.

Engineers

Professional engineers underpin the safety, performance and productivity of Australia's construction and infrastructure sectors. Whether working in structural, civil, mechanical, electrical, fire safety or building services disciplines, engineers translate design briefs into compliant documentation, certify installations and provide expert oversight throughout the asset lifecycle.

Yet, registration requirements vary markedly by jurisdiction: Queensland mandates statutory registration under the *Professional Engineers Act 2002 (RPEQ)*, Victoria follows its own *Professional Engineers Act 2019*, New South Wales relies on the *Design & Building Practitioners Act 2020*, while other states have no statutory engineer registration scheme.

Because engineers, particularly those in consulting and contracting roles, are frequently engaged on projects that span multiple jurisdictions, they must secure and maintain multiple registrations or licences to practise legally across borders. This requirement imposes significant cost and administrative overhead, diverting resources from project delivery and diluting productivity gains.

This patchwork creates duplicated fees, inconsistent CPD obligations and delays in cross-border project mobilisation.

A single, competency-based national register drawing on Engineers Australia's National Engineering Register (NER) would streamline accreditation, allow engineers to move seamlessly between jurisdictions, and ensure uniform professional standards from design through regulatory approval. This would enhance project consistency, reduce delays, and strengthen public confidence.

Which occupations best suit a national licensing (registration) scheme?

All professional engineers who provide design, certification, performance-solution development or expert-witness services for building, infrastructure and industrial projects. A national scheme should initially prioritise engineers operating in the built environment (civil, structural, mechanical, electrical and fire safety) where cross-border project teams are common and delays caused by duplicate registrations are most acutely felt.

What would be the first steps towards a national licensing scheme for selected occupations?

- Adopt the National Engineering Register (NER) as the baseline competency. The NER already incorporates qualification verification, competency assessment, CPD tracking and a code of ethics overseen by Engineers Australia.

- Maintain charter ship auditing. Existing chartered bodies—such as Engineers Australia (EA), the Australian Institute of Refrigeration, Air Conditioning and Heating (AIRAH) and the Chartered Institution of Building Services Engineers (CIBSE)—would continue to perform peer review audits and competency reassessments. Retaining these independent mechanisms ensures quality assurance and eases transition to the national framework. The NER already incorporates qualification verification, competency assessment, CPD tracking and a code of ethics overseen by Engineers Australia.

- Develop a Model Legislation for "Registered Professional Engineer". Each jurisdiction would enact uniform title protection and rely on accredited assessment entities (e.g. Engineers Australia, AIRAH, CIBSE) for competency vetting, leaving state boards to focus on audit and enforcement.

- Pilot mutual data sharing. A memorandum of understanding among existing state boards would ensure that disciplinary actions taken in one jurisdiction apply nationally, while the Model Bills are enacted

- Establish an implementation taskforce comprising Commonwealth and state/territory regulators, peak industry bodies, unions and training organisations to steer the scheme's design and rollout. The taskforce would, coordinate stakeholder input and swiftly resolve inter-jurisdictional issues.

Why did previous attempts at a national licensing scheme, such as the National Occupational Licensing Scheme, fail? How could a renewed attempt overcome the barriers to a national licensing scheme?

Limited to four initial occupational areas—electrical, plumbing, property and refrigeration & air conditioning—and an 'expansion stage' that might have addressed engineering was abandoned when the project collapsed. As a result, the unique challenges of engineer registration were left to state-based solutions that have since proliferated. Key lessons include:

- Omission from scope. Engineers were not part of the initial NOLS legislation, leaving the profession without a seat at the table and diminishing support for the broader project.

- The existing national benchmark was ignored. Engineers Australia had already established the National Engineering Register (NER), offering a ready-made competency framework. NOLS did not leverage this resource, leading to concerns about lowering standards.

- State momentum towards bespoke regimes. In the vacuum left by NOLS, Queensland, Victoria, and later New South Wales pursued their Acts, entrenching fragmentation that is costly to unwind.

Addressing these barriers in a renewed effort

- Start with engineering as a discrete profession to demonstrate feasibility rather than subsuming it in a multi-occupational omnibus.

- Adopt the NER as the competency benchmark to avoid reinventing assessment processes and ensure the buy-in of the professional body.

- Co-design with state boards and peak bodies so that existing regulatory infrastructure and disciplinary powers are retained but applied uniformly across jurisdictions.

What benefit would a national licensing scheme provide over expanding the automatic mutual recognition scheme?

Statutory engineering functions that involve formal design certification or signoff, such as structural adequacy certificates, fire safety reports or mechanical performance solution endorsements, are reserved for locally registered practitioners under every state's legislation. Automatic Mutual Recognition, therefore, offers no practical pathway for engineers holding these responsibilities. Even where AMR is nominally available, divergent CPD rules, insurance thresholds and title protection laws oblige engineers to secure and maintain separate registrations in each jurisdiction where they sign off on work. A national register would:

- provide one renewal and CPD ledger recognised by all jurisdictions

- ensure uniform minimum insurance and ethical standards; and

- publish a single disciplinary record, enhancing confidence for certifiers, insurers and project financiers.

How could the PC best quantify the benefits of a national licensing scheme?

The Commission can arrive at a robust, order of magnitude estimate by first tallying duplicated registration fees, CPD administration and additional insurance premiums borne by engineers who maintain licenses in more than one jurisdiction; then modelling the productivity uplift that would flow from eliminating registration related project delays—using ABS labour force data to gauge cross border work and conservative assumptions about days saved—before finally feeding these compliance and efficiency savings into its computable general equilibrium framework to capture broader economic spillovers, all without the need for detailed bottom up costings at this policy design stage.

INTERNATIONAL STANDARDS

Australia's HVAC community already operates within an intensely internationalised knowledge ecosystem: consultants, contractors and regulators routinely specify or benchmark against American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) good-practice documents, such as the Design Guides and the foundational Standards. Treating them as global reference points, complementing domestic codes rather than competing with them. That international lens is hard-wired into the Australian rule-making machinery because Standards Australia is the national member of the International Organisation for Standardisation (ISO) and the International Electrotechnical Commission (IEC). It may participate in or observe hundreds of technical committees worldwide, ensuring early visibility of emerging drafts and the chance to shape them in Australia's interest.

Within Australia, sector-specific committees mirror similar linkages. For example, the ME-062 Ventilation and Air-Conditioning Committee (on which AMCA is formally represented) maintains cornerstone codes like AS 1668 and AS 4254 and routinely assesses International Standards for adoption or comparison whenever a revision is opened or a similar AS version is being reviewed.

Policy settings support this approach, with the Australian Government's standards and conformance framework committing regulators to "use trusted international standards first, where appropriate." This aligns with Australia's obligations under the World Trade Organisation's Technical Barriers to Trade Agreement and helps reduce duplicative testing costs for exporters and importers. Additionally, Standards Australia's Guide SG-007 establishes the adoption or modified adoption of ISO documents as the default position, unless a justifiable national deviation is required. Where further gains are sought, the challenge is not conceptual adoption but practical velocity: Standards Australia's current strategic plan flags digital tooling and contributor development programs as vehicles for shortening drafting cycles and broadening expert participation, yet these initiatives require sustained resourcing to reach full potential.

AMCA maintains that Australia already engages appropriately with international standards—accessing, evaluating, and integrating them into local frameworks with sufficient rigour. The priority now is not to introduce additional or potentially duplicative international adoption mechanisms, but rather to strengthen the capacity of Standards Australia to keep pace with global best practice. This can be achieved through targeted funding, a well-supported pipeline of expert committee members, and more efficient project management. Such investment would accelerate the refresh of critical HVAC standards and ensure Australia's technical requirements remain contemporary, coherent, and internationally aligned.

Furthermore, AMCA strongly recommends that Australian Standards mandated by regulation, such as those referenced in the National Construction Code and other legislative instruments, be made freely accessible to industry practitioners. When compliance with a standard becomes a legal obligation, charging for access creates an unjustifiable barrier to participation, particularly for smaller firms. This paywall distorts market access, undermines transparency, and entrenches competitive disadvantages by favouring well-resourced businesses. Removing the cost burden would expand access to essential technical knowledge, improve compliance rates, reduce costly errors, and enhance consistency across the built environment. From a competition policy and productivity standpoint, making regulated standards freely available is a clear and compelling, low-cost, high-impact, and urgently needed reform.

OTHER COMPETITION REFORM OPTIONS

Through a series of roundtables and targeted workshops with our members, recurring themes emerged that extend beyond licensing reform and harmonisation standards.

Participants pointed to duplicated regulations across jurisdictions, uneven procurement practices, payment risk, and other commercial frictions that deter new entrants, dampen innovation, and erode productivity. The initiatives listed below distil those insights into practical "other competition reform options" that, if adopted nationally, would dismantle barriers, broaden the supplier base, and sharpen price-and-quality rivalry across the construction sector.

Harmonise building regulations across jurisdictions

Across Australia, the construction industry must continually navigate a patchwork of state-based rules and funding settings that undermine national productivity.

National training system vs state funding
Although vocational qualifications are endorsed nationally, each state decides which units to subsidise and at what price. A course that is effectively compulsory for a commissioning or fire-safety technician may be heavily subsidised in one jurisdiction yet full-fee in another, discouraging private and industry-run RTOs from rolling out the same specialist program nationwide.

National Construction Code vs state oversight
The NCC is intended to operate as a single technical rulebook, yet jurisdictions routinely publish variations, delay adoption, and overlay extra compliance checks. With NCC 2022 Amendment 1 commencing on 1 May 2025, several states have already signalled departures that will force designers to maintain multiple drawing sets and manufacturers to duplicate product testing.

These inconsistencies—from security-of-payment trust thresholds to workplace-safety penalties—impose real costs on firms operating across borders. Governments should move beyond voluntary alignment and adopt a nationally enforced harmonisation framework: an intergovernmental agreement that commits every jurisdiction to common NCC commencement dates, consistent licensing and training rules, and standardised safety and payment provisions, backed by transparent reporting and compliance oversight. Such a shift would remove administrative constraints, boost workforce mobility, and create the certainty businesses need to invest in nationally scalable skills development and innovative delivery models.

Unfair contract terms

The construction sector continues to be plagued by inequitable contract structures that place disproportionate risk on subcontractors. These imbalances are most evident in head contracts and subcontracts that impose strict liability clauses, transfer the burden of risk onto smaller contractors, and offer limited recourse for variations or time extensions. Subcontractors often face circumstances where they must absorb material and labour cost increases despite market volatility or changes to project scope without sufficient mechanisms to recover those costs.

Further complicating matters are the restrictive payment terms commonly embedded in contracts. Subcontractors report delayed access to progress payments, often well beyond the industry standard of 30 days, creating cash flow challenges that limit business continuity and investment capacity. This issue is particularly damaging in the context of rising inflation and construction input costs, where long payment cycles erode already tight margins and make it difficult for small firms to sustain operations.

Escalation clauses are also inconsistently applied or enforced. While many head contractors and principal project owners recognise the volatility of input costs, subcontract agreements often fail to provide meaningful pathways for recovering unexpected increases. This forces subcontractors to either absorb losses or withdraw from bidding on public sector projects entirely, reducing competition and undermining the government's procurement goals.

Combined, these contract terms have created a hostile commercial environment for subcontractors, with rising insolvency rates and declining subcontractor participation in public infrastructure programs.

To address these challenges, AMCA supports contract reform focused on the following priorities:

- Implement prompt payment legislation with a mandated 20-day payment term for subcontractors on government-funded projects.
- Standardise subcontract agreements' fair variation and escalation clauses, including mandatory material and wage increase consideration.
- Equitable risk allocation frameworks that recognise smaller contractors' capacity and bargaining position.

These reforms would go a long way to restoring subcontractor confidence, stabilising the industry's commercial foundations, and ensuring the long-term viability of the national construction supply chain. They would include prompt payment practices, enforceable cost variation protocols, and equitable distribution of project risk through balanced head contract and subcontract clauses.

Tendering practices

The competitive tendering environment intended to promote value for money is distorted by a cluster of procurement behaviours that systematically disadvantage small-to-medium enterprises (SMEs) and specialist subcontractors.

Chief among these is bid shopping, where a head-contractor discloses one subcontractor’s price to another to secure a further discount; the practice is condemned across the industry for eroding trust, inflating risk allowances and ultimately driving up whole-of-project costs. Because subcontractors anticipate their numbers being “shopped”, they embed contingencies or withdraw from bidding altogether, shrinking competition and hurting genuine productivity gains.

The mounting use of retendering exacerbates the problem, sometimes mid-project, where early prices and concepts are harvested, re-packaged and sent back to market. Recent government decisions to re-test major hospital and infrastructure packages illustrate how easily a single announcement can wipe out pipelines and strand regional workforces.

A further drain on SME capacity is the expectation of unpaid (or grossly under-compensated) design and engineering work during the tender phase. Interactive and two-stage models routinely require detailed concept development, with full consultant teams, before a contract is awarded. Yet, unsuccessful bidders may recoup only a fraction of their costs, if anything at all. This shifts design risk and expense onto the parties least able to carry it, effectively reserving opportunities for large corporations with deeper balance sheets. Compounding the issue, tender conditions often oblige bidders to surrender or license their intellectual property, enabling principals to fold bespoke solutions into subsequent retenders without the originator's participation or reward.

These practices sit beside Australia's strengthened unfair-contract-terms regime, which now attracts significant civil penalties for one-sided, non-transparent terms or which misallocate risk. Unless addressed, bid shopping, uncompensated design obligations and opportunistic retendering will continue to strip expertise from the supply chain, suppress genuine innovation and widen the insolvency risk already confronting subcontractors in today's tight market.

Margin Erosion from Lowest-Price Tendering

The construction industry's continued reliance on lowest-price tendering as the default procurement strategy for public infrastructure delivery has created deeply entrenched challenges across the construction supply chain. While intended to drive cost-efficiency, this method has instead encouraged an unsustainable race-to-the-bottom, where contractors, particularly at the subcontractor level, are pressured to submit unrealistically low bids to remain competitive. These artificially low margins jeopardise businesses' financial sustainability and have broader ramifications for construction quality, workforce development, and innovation.

Subcontractors operating under this model are often forced to make concessions on training, safety, and technology investment to remain commercially viable. The impact of reduced margins manifests most acutely in reduced apprentice intake, high staff turnover, and an inability to adopt emerging construction technologies or digital tools that could otherwise deliver productivity gains. This creates a feedback loop where capacity constraints and underperformance become endemic, not due to a lack of intent or capability but because of structural market settings that do not reward best practices.

Furthermore, the current model fails to account for the longer-term economic value of infrastructure. Projects awarded based on the lowest upfront price frequently result in higher lifecycle costs due to lower build quality, higher maintenance needs, and early component failure. The exclusion of whole-of-life value assessments from the tendering process represents a significant missed opportunity to ensure durable, high-performing infrastructure that delivers consistent returns on public investment.

The widespread use of financial models and cost benchmarks that disincentivise innovative or performance-based solutions is equally problematic. Contractors that propose alternative delivery models—such as prefabricated service modules, integrated design solutions, or high-performance systems—often reject their proposals based on short-term cost differentials despite the potential for reduced construction timeframes, improved safety, and lower operational expenditure. Without reform, these approaches will remain underutilised, and the sector will continue to default to traditional, lowest-cost approaches even when they no longer represent the best value.

AMCA strongly advocates a systemic shift in procurement policy away from pure lowest-price tendering. Government agencies should adopt weighted-criteria evaluation models that balance price with contractor performance history, delivery capability, safety record, innovation, and commitment to workforce development. These models must be supported by clear guidance for procurement officials and applied consistently across departments and agencies.

As part of this modern toolkit, agencies should also make greater use of “pain-and-gain” (target-cost or alliancing) contracts. Under these collaborative agreements, the client and contractor agree on a target price up front and then share any variance: cost underruns are split as savings, while overruns are borne jointly in the same proportion. Aligning financial incentives in this way fosters early problem-solving, transparent risk allocation, and continuous value-engineering and ultimately protects margins for specialist subcontractors.

Finally, the new approach must be underpinned by transparent post-completion review processes that track whether projects met their budget, quality, and delivery targets. Insights from these reviews should feed back into future procurement strategies, creating a continuous-improvement loop that rewards performance rather than headline price alone.

Early Contractor Engagement (ECE)

Early Contractor Engagement (ECE) is one of the most potent yet underutilised strategies to improve project outcomes in the construction industry. Too often, key subcontractors in building services, including HVAC, fire, hydraulics, and controls, are brought into the design process only after design development has progressed beyond 50% or even later in some cases. This means practical construction input is sought far too late to influence spatial planning, sequencing, or system coordination meaningfully. This late engagement leaves little room for practical input on buildability, staging, and system integration—factors that heavily influence cost, sequencing, and compliance outcomes.

International case studies show clear benefits from early engagement. In the United States, data compiled by the National Association of Construction Owners (2021) indicates that structured early contractor involvement can reduce program durations for HVAC works by 5–10%, significantly lower rework, and minimise risk around critical system interfaces such as smoke control. Closer to home, major projects incorporating specialist trades during early design phases have reported improved coordination and fewer downstream delays, yet Government public procurement frameworks rarely mandate this approach.

Without early input, construction teams must work around pre-approved designs that may not account for system clashes, realistic installation sequencing, or achievable tolerances. This increases reliance on Requests for Information (RFIs), design variations, and site-level troubleshooting—inefficiencies that could be avoided through proactive collaboration.

AMCA recommends the Government:

- Mandate Early Contractor Engagement (ECE) on all major government-funded infrastructure projects.

- Establish minimum timeframes and formal engagement protocols for trade specialist input before tender finalisation.

- Publish model procurement language to support best-practice implementation of ECE in public contracts.

ECE drives productivity by front-loading risk resolution, enabling accurate cost planning, and creating integrated project teams invested in whole-of-life outcomes, not just upfront delivery.

Off-Site Manufactured Service Modules

Off-site construction is gaining traction globally to reduce labour reliance, improve safety, and speed up project delivery. In building services—particularly HVAC, fire, and hydraulic systems—prefabricated plant skids, riser modules, and multi-trade corridor racks offer a significant opportunity to transform how complex building systems are delivered. These modular units are assembled in controlled factory environments and then craned into position on-site, dramatically reducing site congestion, manual handling risks, and weather exposure.

Despite the growing use of these techniques in commercial and infrastructure projects, the regulatory environment does not clearly distinguish between off-site manufactured service components and full volumetric prefab buildings. This has led to regulatory uncertainty around inspection, compliance, and installation responsibilities, discouraging wider adoption.

It is essential to clarify that off-site manufactured service components—unlike fully prefabricated building modules—are not concealed upon delivery and are still installed, connected, and commissioned on-site by licensed practitioners. These components undergo final inspection and approval post-installation, maintaining regulatory oversight and ensuring code compliance. Because nothing is hidden within the module before site arrival, compliance risks are substantially mitigated, in contrast with volumetric prefabricated solutions, which require inspection of concealed systems at the manufacturing facility.

Policy and procurement guidance should reflect this regulatory distinction, which only partially recognises the benefits of modular service components. Encouraging their use would unlock quality, safety, and delivery speed gains without compromising the regulatory framework's integrity.

In addition, current procurement and tendering models rarely prefer modular approaches despite their proven ability to shorten delivery timelines and improve quality control. On-site work for large riser shafts or plant rooms can take weeks, while modules can often be installed in a single shift. The productivity benefit, particularly on vertical and complex hospital builds, is substantial.

AMCA recommends:

- Establishing a clear regulatory framework for off-site manufactured service modules, with defined responsibilities for design certification, site integration, and final sign-off.
- Providing procurement incentives or preference points for projects incorporating prefabricated MEP systems.

- Developing government-sponsored case studies and toolkits to showcase productivity, safety, and quality outcomes from modular MEP delivery.

Prefabricated service modules represent a practical and scalable solution to labour shortages and site inefficiencies, particularly in urban and resource-constrained environments.

Nationally aligned BIM Standards

Building Information Modelling (BIM) offers substantial productivity improvement potential, particularly through enhanced coordination, prefabrication, and asset management. However, implementation is fragmented, lacking consistent modelling standards across projects and jurisdictions. This inconsistency forces consultants and trades to remodel designs or translate data formats, creating unnecessary duplication and increasing the risk of coordination errors.

A key opportunity lies in adopting the BIM-MEP-AUS framework—a nationally developed, open-access set of data schemas and digital object libraries tailored to the needs of mechanical, electrical, and plumbing (MEP) services. Standardising this platform across all government-funded projects would allow every project stakeholder to model and coordinate using the same parameters. It would eliminate the inefficiency of remodelling, enable automated clash detection, and support digital workflows that link directly to fabrication and off-site assembly.

Our industry members report that using standardised BIM fabrication templates routinely cuts manual estimating effort by up to 90%, trims data-processing time by about 30%, and reduces rework costs by 5–7%, often saving hundreds of thousands of dollars on a mid-scale commercial build.

These data-rich models accelerate procurement, de-risk labour planning, and compress construction programmes by driving 80% off-site prefabrication, real-time cost tracking, and 4D scheduling.

Such quantifiable efficiency and cost gains make a compelling case for adopting nationally harmonised BIM standards so every project team can unlock the same productivity benefits, no matter where the work is delivered.

To drive implementation, AMCA recommends:

- Mandating BIM-MEP-AUS compliance for all consultants and contractors working on Government projects.

- Providing training and adoption support to industry stakeholders to accelerate uptake and consistency.

- Developing model tender clauses and BIM Execution Plan (BEP) templates aligned with national best practices.

A unified approach to BIM will drive digital maturity, reduce project delivery costs, and better equip Australia’s built environment for a technology-driven future.

CONCLUSION

Australia's economy relies on a construction sector that can mobilise skilled labour quickly, adopt innovation confidently and deliver high-quality assets at the lowest whole-of-life cost. Yet today's patchwork of state-based licences, divergent regulations and adversarial procurement models drains productivity and deters investment.

AMCA's recommendations offer the Commission a clear, evidence-based pathway to reverse those trends:

- Remove duplication by enacting a model Mechanical Services Licensing Act and adopting a single National Engineering Register.
- Accelerate standards alignment through targeted support for Standards Australia and free public access to mandated documents.
- Embed competitive fairness via nationally consistent building rules, prompt-payment protections and modern, performance-focused procurement methods.
- Unlock innovation by mandating early contractor engagement, encouraging off-site manufacture and standardising BIM workflows.

These reforms are practical, low-risk and build on structures that already exist. Implemented together, they will cut red tape, lift workforce mobility, foster genuine price-and-quality rivalry and position the construction supply chain to meet Australia's future housing, infrastructure and decarbonisation demands.

AMCA stands ready to assist the Productivity Commission and governments in designing the detailed implementation steps, supplying data, and convening industry expertise to ensure the reforms deliver their full productivity potential.