

Decision Regulation Impact Statement

Proposal for national licensing of the refrigeration and air-conditioning occupations



The Council of Australian Governments' National Licensing Steering Committee has prepared this Decision Regulation Impact Statement, with assistance from PricewaterhouseCoopers. Its purpose is to inform a decision by the Standing Council for Federal Financial Relations on the approach to national licensing for the refrigeration and air-conditioning occupation.

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This is the second stage of a two-stage Regulation Impact Statement (RIS) process which includes a Consultation RIS followed by a final Decision RIS.

The purpose of this Decision RIS is to present the costs and benefits of options associated with national occupational licensing reform to assist the Council of Australian Governments (COAG) in its decision making on reform paths. This Decision RIS incorporates jurisdictional and stakeholder views on reform paths following a consultation process. Consultants were commissioned by the COAG National Licensing Taskforce to prepare the Decision RIS, and it incorporates views that have been brought to the attention of the consultants. Extensive information has also been provided by jurisdictions on the costs and benefits of policy approaches and the detail of the licensing arrangements in each jurisdiction.

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About this Decision Regulation Impact Statement

The purpose of this Decision Regulation Impact Statement (RIS) is to recommend a preferred option for policy to underpin the establishment of a national licensing scheme for the refrigeration and air-conditioning occupation. This follows stakeholder comment on the Consultation RIS for national licensing for the refrigeration and air-conditioning occupation.

This Decision RIS identifies the nature of the problem to be solved, outlines the alternative policy options considered and explains the rationale for selecting the model proposed and the elements that comprise the model. It also assesses the costs and benefits of the preferred model compared with the other options identified.

This Decision RIS follows the guidelines of the Council of Australian Governments (COAG) in the *Best practice regulation guide (2007)*. It has been approved for release by the Office of Best Practice Regulation.

PricewaterhouseCoopers was engaged by the COAG National Licensing Steering Committee (the Steering Committee) to assist with the preparation of both the Consultation and the Decision RIS.

Summary of options considered in this Decision Regulation Impact Statement

The refrigeration and air-conditioning occupation is licensed in only three jurisdictions: New South Wales, Victoria and Queensland either as a separate occupation or as an endorsement on a plumbing licence. In the five jurisdictions (Western Australia, South Australia, Tasmania, the Australian Capital Territory and the Northern Territory) that do not licence the occupation, regulation occurs through plumbing or building, as part of building work or as restricted electrical work where the focus is on different aspects of refrigeration and air-conditioning work to that licensed under refrigeration and air-conditioning in New South Wales, Victoria and Queensland.

The refrigeration and air-conditioning industry has approximately 12,700 refrigeration and air-conditioning licensees (in those jurisdictions that licence the occupation) and approximately 29,453 Commonwealth Arctick licence holders (those working with ozone depleting refrigerants) across Australia.

Reform of the licensing of this occupation has the potential to deliver ongoing benefits, most of which go to licensees, businesses and consumers in those three jurisdictions. There are one-off costs under some options for reform, including costs to licensees and business to become aware of the proposed changes, and costs to government for the establishment of the National Occupational Licensing Authority (NOLA) and the national licensing register. There would also be ongoing costs to maintain NOLA and the register. This Decision RIS indicates that the benefits of the reform outweigh these costs.

The Consultation RIS considered four options to licensing of the refrigeration and air-conditioning occupation:

Option 1 - No licensing (except for the Commonwealth Arctick licence): no national or state and territory licensing of the refrigeration and air-conditioning occupation except for the Commonwealth Arctick licensing scheme.

Option 2 - National licensing: the Consultation RIS offered two ways in which national licensing could be structured:

- national licensing model A which proposed licensing at the contractor, full licence and provisional licence levels
- national licensing model B which proposed partial regulation with licensing at the contractor level only.

Option 3 - Automatic mutual recognition:-allows a refrigeration and air-conditioning licensee to have their current state-or territory-based licence recognised by other jurisdictions, enabling them to work in that jurisdiction without having to apply for another licence or pay an additional licence fee.

Option 4 - Status quo: the states and territories would continue to operate their own licensing systems and mutual recognition provisions would apply. This option is taken as the baseline. The changes involved in the alternative options were costed against the baseline.

Under all options, the Commonwealth Arctick licence would remain a requirement for those working with refrigerants. The requirement to hold a restricted electrical licence would also remain in all states and territories.

The impetus for reform is a desire to enhance labour mobility and remove unnecessary regulatory burdens on licensees. All of the options for reform enhance labour mobility. Given this, understanding the key differences between the options requires consideration of the licensing requirements and competencies, and their impact for industry and users of refrigeration and air-conditioning services.

Quantified impacts for the national licensing options

Table S.1 below shows the quantified impacts for the two national licensing options and no licensing (except for the Commonwealth Arctick licence). A decision on which option is preferred depends on assessing a full range of costs and benefits, such as the impact of each option on safety and consumer protection. The preferred option is no licensing (except for the Arctick licence), as this provides the net highest benefit to the community. However, stakeholder feedback, predominantly from the three states that licence the occupation, indicated that this option would not provide the skills necessary to undertake refrigeration and air-conditioning work. Stakeholders considered that this option would not address safety risks for workers or provide the required consumer protection outcomes for users of refrigeration and air-conditioning services. Despite this, no evidence was provided of risks to consumer and worker safety in those jurisdictions which do not currently license this occupation. National licensing model B, which provides a reduction in regulation in some jurisdictions, was not recommended as it did not provide the highest net benefit to the community and was also considered by stakeholders to not address safety risks for workers or provide the required consumer protection outcomes for users of refrigeration and air-conditioning services. However, there has been no evidence provided of higher risks associated with National licensing model B. National licensing model A is the alternate option recommended in this Decision RIS as it addresses both the perceived occupational health and safety issues for workers as well as wider consumer protection issues. This option does, however, increase regulatory requirements in two of the three jurisdictions.

Table S.1: Impacts of national licensing

Quantified impacts	National licensing model A	National licensing model B	No licensing (except for the Commonwealth Arctick licence)
Ongoing net impact (\$ million per annum)	7.77	8.55	11.52
Community (licensees, business, households)	6.21	7.71	11.52
Government ^a	(0.15)	(0.15)	-
One-off transition costs (\$ million)	(1.85)	(1.85)	(0.24)
Community (licensees, business, households)	(1.14)	(1.14)	-
Government ^a	(0.70)	(0.70)	(0.24)
Total 10-year NPV (\$ million)	37.73	47.51	74.88
Benefit-cost ratio of the total 10-year NPV	2.81	4.72	329.72
Payback period (years)	0.24	0.22	0.02
Rate of return (annualised percentage)	421%	463%	4,726%
10-year NPV (\$ million)	NSW	Vic	Qld
National licensing model A	8.38	10.68	18.67
National licensing model B	8.88	18.18	20.45
No national licensing	16.68	31.41	26.79

NPV = net present value

^a The analysis does not account for changes in GST, payroll or other taxes. However, if it is reasonable to expect the community benefits to be consumed as expenditure, then there will be a flow-through of GST revenue.

Executive summary

Purpose of the Decision Regulation Impact Statement

This Decision Regulation Impact Statement (Decision RIS) examines the impact of replacing the current diverse state and territory licensing of the refrigeration and air-conditioning occupational area with a proposed national licensing approach. It considers the impact that each option would have on industry, consumers and government and is informed by stakeholder feedback on the options outlined in the Consultation RIS, which was released on 13 August 2012. It acknowledges that the status quo is the default option.

The problem

The refrigeration and air-conditioning occupation is currently licensed under both Commonwealth legislation, administered by a specific body on behalf of the Australian government, and state and territory legislation, administered by jurisdictional regulators.

The various approaches to licensing have led to differences in the types of licence categories available, the names of licences, the scopes of regulated work authorised by each licence and the eligibility requirements, including qualifications, needed to obtain them. These inconsistencies create a regulatory burden for businesses that operate and employ skilled people on a multi-state basis, as they must be familiar with, and comply with, the differing requirements of multiple jurisdictions. They create a regulatory burden for the nation as they impede the free movement of skilled labour across states and territories. Under current arrangements:

- a Commonwealth Arctick licence (Arctick licence) is required in all jurisdictions when individuals are undertaking refrigeration and air-conditioning work involving ozonedepleting refrigerants. This will remain a requirement for persons working in the refrigeration and air-conditioning sector under all options proposed.
- three jurisdictions currently license the refrigeration and air-conditioning occupation: New South Wales (at the contractor and occupational licence levels), Victoria (as a specialised plumbing class, issued as an 'endorsement' on a mechanical services plumbing licence at both the registration and licence levels) and Queensland (at contractor level licence only). Queensland is also the only jurisdiction to license the handling of hydrocarbon refrigerants separately at an occupational level.
- Western Australia, Tasmania, the Australian Capital Territory and the Northern Territory do
 not license the refrigeration and air-conditioning occupation. South Australia regulates the
 occupation as part of the building occupations, where the primary focus of licensing
 surrounds the structural integrity of the installation of a refrigeration and air-conditioning
 unit in a building (that is, the mounting of the unit and strengthening of trusses where
 required).
- All jurisdictions require refrigeration and air-conditioning workers to hold a restricted electrical licence to disconnect and reconnect refrigeration and air-conditioning equipment

if they are undertaking installation, fault finding, making repairs and working with equipment that is hard wired or connected to a power supply.

- If work undertaken involves the disconnection or reconnection of a refrigeration and airconditioning unit to a water supply, a restricted plumbing licence is required by most jurisdictions.
- Queensland is the only jurisdiction to require a gas work licence (hydrocarbon refrigerant) if the refrigeration and air-conditioning work involves hydrocarbon gas. All other jurisdictions regulate hydrocarbons through dangerous goods, gas or environmental legislation.

An overview of the sector and current regulatory requirements is provided at Attachment A.

The different approaches impose a regulatory burden on licensed workers despite the existence of mutual recognition arrangements since 1992. Under mutual recognition arrangements, a licensed person moving from one jurisdiction to another is entitled to a licence authorising the equivalent scope of work to that authorised by the issuing or home jurisdiction. However they must first apply for recognition of their existing licence and pay another fee. Once an application is lodged, they are able to work to the scope of their existing licence(s), pending the decision of the 'second' jurisdiction regulator. Provided that the decision is to recognise that licence, they will be issued with the nearest equivalent licence, which may or may not have conditions imposed to achieve that equivalency. It is sometimes necessary for the second jurisdiction to issue multiple licences to equal the scope of the first. If the licensed worker regularly works across borders, they must renew these multiple licences and pay the relevant fees. This acts as a deterrent to those who might otherwise take advantage of business opportunities in other states and territories. Mutual recognition does not apply to business licences unless they are held by a natural person (e.g. not a body corporate). This negative impact is particularly felt at times of skills shortage or when there is a natural disaster. One of the catalysts for work on national licensing was the aftermath of cyclone Larry in 2006, when the skilled workers from other jurisdictions were unable to respond quickly to assist in repairing the significant damage to infrastructure.

In addition to the burden of red tape on licensees arising from the very different approaches, governments must retain oversight of their own regulatory regime while maintaining an understanding of how other regimes work in order to recognise licences from other jurisdictions. These multiple approaches would appear to be economically inefficient for a nation of just over 23 million people¹.

Government objectives for reform

The Council of Australian Governments (COAG) has agreed to pursue wide-ranging regulatory reform to create a seamless national economy to enhance Australia's longer-term growth. This is to be achieved through reducing costs incurred by business in complying with unnecessary and inconsistent regulation across jurisdictions, thereby improving workforce participation and overall labour mobility in order to increase Australia's productivity.

ABS Population Clock 30 April 2013.

A key part of achieving this objective is to address the deficiencies in the current approach to licensing in Australia by developing a National Occupational Licensing System (national licensing) for certain occupational areas. Under this reform, national licences would be issued by a national licensing authority and would allow licensees to operate in all Australian jurisdictions, without having to apply for another licence or pay an additional fee. A key objective is to ensure licensing arrangements are effective and proportional to that required for consumer protection, and worker and public health and safety, while ensuring economic efficiency and equity of access.

COAG agreed that the national licensing system would commence with the following initial occupational areas and would be introduced in two waves:

- first wave: electrical; plumbing and gasfitting; property; refrigeration and air-conditioning
- second wave: building and building-related occupations; valuers and conveyancers.

COAG has agreed that, under national licensing, the first wave of licenses will be settled by 2013, with the second wave of occupations to follow. The national licensing system would have the capacity to extend to other licensed occupations over time and provides a platform from which further harmonisation of state-based licensing arrangements could be considered.

The principles on which the work has been undertaken are based on COAG's Principles of Best Practice Regulation which have been incorporated into the *Intergovernmental Agreement for a National Licensing System for Specified Occupations*, signed by all jurisdictions in April 2009. These state that licensing arrangements should be effective and proportional to that required for consumer protection, and worker and public health and safety, while ensuring economic efficiency and equity of access.

Options considered

The following provides a summary of the four options outlined in the Consultation RIS. Note that the Arctick licence remains as a requirement under all options.

Option 1: No licensing (except for the Commonwealth Arctick licence)

Under this option there would be no licensing of the refrigeration and air-conditioning occupation either under the national licensing system or separate state or territory licensing. Regulation of the occupation would occur through the Arctick licence, itself a national licence, which enables the Australian Government to meet its obligations as a signatory to the *Montreal Protocol on Substances that Deplete the Ozone Layer 1987*, amended in Beijing in 1999 (Montreal Protocol), for the phasing out of ozone-depleting gases. Regulation would also continue through other legislation, such as dangerous goods, occupational health and safety, health, environmental requirements and the requirement to hold a restricted electrical licence to undertake associated electrical work, would continue to apply under all options.

Option 2: National licensing

There are two ways in which national licensing for the refrigeration and air-conditioning occupation could be structured:

- national licensing model A: licensing at contractor, full licence and provisional licence levels
- national licensing model B: partial regulation (licensing at the contractor level only). This option would consider the Arctick licence as the 'occupational or worker' licence.

Under these models, an individual would be issued with one national licence and would be able to work in all Australian jurisdictions, without having to apply for another licence or pay an additional fee. Licenses will have a nationally consistent scope of work, and will be granted based on a single set of nationally agreed eligibility requirements, for example, qualifications, personal and financial probity.

Option 3: Automatic mutual recognition

Under this option:

- mutual recognition arrangements would be enhanced so that licensees would no longer have to apply for a licence in multiple jurisdictions.
- each jurisdiction would continue to issue licences against existing jurisdictional categories
 and associated scopes of work but with these licences being recognised by all states and
 territories without the licensee having to reapply for a licence or pay an additional fee.
 Recognition could be restricted to those licences where equivalency has been declared.
 There would be the opportunity over time to move towards a 'harmonised set of
 categories' or for jurisdictions to deregulate areas identified as unnecessary in the Decision
 RIS.

Option 4: Status quo

Under this option, there would be no changes to existing licensing and mutual recognition arrangements. While this option has not been costed it is acknowledged that the status quo is the default option, that is, the costs associated with introducing national licensing are the changes in moving from the status quo.

Recommended option

The no licensing (except for the Commonwealth Arctick licence) is considered the preferred option as determined under the COAG best practice regulation guidelines because it provides the highest net benefits to the community. Despite this option reducing costs for businesses and/or licensees, and no evidence to suggest risks to consumer safety are any higher than licensing the occupation, this option is generally not supported by industry.

Following stakeholder consultation National licensing model A is put forward as the alternative option in this Decision RIS. National licensing model A has the support of industry and regulators. It represents a benefit to the community, albeit a lower benefit than national licensing model B, and according to industry and regulators provides additional consumer protection and health and safety. However, no evidence was provided of risks to consumer and worker safety in those jurisdictions which do not currently licence this occupation.

Overview of options

No licensing (except for the Commonwealth Arctick licence)

This model proposes no licensing (except for the Commonwealth Arctick licence) of the refrigeration and air-conditioning occupation. This means that individuals and businesses in New South Wales, Victoria and Queensland who wish to undertake refrigeration and air-conditioning work would no longer be required to obtain a licence in addition to the Arctick licence (i.e. state-based level of occupational and contractor licensing would be removed).

The no licensing model (except for the Commonwealth Arctick licence) reflects the current regulatory approach in the majority of jurisdictions in Australia. No evidence of market failure or any increased health and safety or consumer protection concerns has been provided, by any jurisdiction that does not licence the refrigeration and air-conditioning occupation.

Regulation of the occupation would occur through the requirement to hold an Arctick licence under the national (Commonwealth) Arctick licence scheme. The holding of an Arctick licence will remain as a requirement for persons working in the refrigeration and air-conditioning occupation, regardless of the option chosen. This ensures that the government meets its international obligations under the Montreal Protocol to phase out ozone-depleting gases. In addition, the requirement would remain to hold a restricted electrical licence as currently occurs in all jurisdictions or a restricted plumbing licence as currently occurs in some jurisdictions.

The Commonwealth Arctick licence requires that any person working with ozone-depleting refrigerants and undertaking work to install, service or repair an air conditioner, or any other refrigeration and air-conditioning equipment, must be a licensed individual under the relevant Commonwealth regulations. Holders of a refrigerant handling refrigerant-handling licence are individuals who are qualified in their field of activity and have met the licensing requirements under the *Ozone Protection and Synthetic Greenhouse Gas Management Regulations 1995*. The Arctick licensing scheme issues licences for automotive air-conditioning and for trainees which are considered out of scope under national licensing. The Arctick 'full refrigeration and air-conditioning licence' is the relevant licence when discussing the Arctick licensing scheme with national licensing.

The qualifications required to obtain the Arctick Full Refrigeration and Air conditioning licence are the same or very similar to those required by two of the jurisdictions (New South Wales and Victoria) that licence the refrigeration and air-conditioning occupation. Queensland requires either a diploma or advanced diploma to obtain a licence in the refrigeration and air-conditioning occupation, but also require a similar Certificate III qualification to obtain the gas work licence (hydrocarbon refrigerant)(see Chapter 3 and Attachment E for more details).

No licensing provided the highest net benefit to governments and consumers, however stakeholders pointed out that the Arctick licence is focused primarily on environmental protection objectives (specifically fluorocarbon or ozone-depleting refrigerants, but not natural refrigerants) whereas state-based occupational licensing is aimed at achieving health, safety and consumer protection in the refrigeration and air-conditioning work being undertaken. This option is not supported by industry.

National licensing options

All national licensing models would achieve significant benefits through improved labour mobility and reduced red tape for businesses and licensees. While this benefit would be greatest for larger companies working in multiple jurisdictions, it would also be felt by small businesses, which would more readily be able to attract staff from other states and territories and to understand the scope of the licences prospective employees may hold. The industry consists of a fragmented structure with many small to medium-sized contractors operating in narrow geographic markets. The four largest enterprises in the industry generate approximately 10 per cent of industry revenue.

National licensing involves each of the jurisdictions agreeing to a common set of licence categories and eligibility requirements so that there is one system and an agreed set of requirements operating throughout the country.

Under national licensing, licence requirements would be consistent in the three jurisdictions that license the refrigeration and air-conditioning occupation and uniform licence categories would be issued. A national policy framework would apply, overseen by the national licensing authority, which would help ensure consistency. National legislation and policy development processes would underpin the system and provide a mechanism for ensuring that the system remained sustainable and that there was a forum in which to resolve jurisdictional differences.

Considerable discussion surrounded the selection of the most appropriate model for the licensing of the refrigeration and air-conditioning occupation.

National licensing model A, as presented in the Consultation RIS, was developed with advice from the refrigeration and air-conditioning Interim Advisory Committee (IAC), which met to advise on policy options during 2010–11. The IAC comprised representatives from industry, unions, regulators, the training sector and consumer groups. The model consisted of contractor, full licence and provisional licence levels for the categories of refrigeration and air-conditioning and restricted refrigeration and air-conditioning (heat pumps and split systems installation). This was viewed by the IAC as a broad reflection of how the industry currently works. Model A would increase regulation in Queensland by introducing an occupational licence which they do not have currently and in Victoria by introducing contractors.

A large number of industry respondents supported this model; however this support was predicated on the removal of the restricted refrigeration and air-conditioning (heat pumps and split systems installation) licence at both the contractor and licence levels. The restricted refrigeration and air-conditioning (heat pumps and split systems installation) licence is a new licence category, proposed by the IAC for inclusion under national licensing. Introducing this licence category represents an increase in regulation in New South Wales and Queensland. Victoria is the only jurisdiction to offer a similar restricted licence category, as an endorsement on a mechanical services licence.

While there would be an increase in burden for the regulator to manage this additional class of licence, including this restricted licence category may lessen regulatory burdens for some licensees. Instead of having to gain a full licence to perform heat pump and split system work, licensees wishing to operate under the reduced scope of work only would be able to gain the restricted licence. This would enable more people to enter the profession.

National licensing model B, offering licensing at contractor level only, was viewed by stakeholders as not addressing the risks to consumer protection and health and safety. This represents an increase in regulation in Victoria. Model B would generate benefits for workers in New South Wales and Victoria by removing the requirement for them to hold an occupational or 'worker' licence. Victoria has indicated it would not support this model if there is no 'occupational or worker' licence.

The key features of national licensing are set out in Box ES.1.

Box ES.1: Key features of national licensing for the refrigeration and air-conditioning occupation

- A licensee would be able to work anywhere in Australia without having to reapply or pay for a licence when moving to another jurisdiction within Australia.
- A central licensing body, the National Occupational Licensing Authority, would be responsible for developing (with Ministerial Council approval) national licence policy for each occupational area and would oversee its consistent application by jurisdictional regulators. National licence policy includes:
 - the licence categories that should apply
 - the regulated work that can be undertaken by the holder of a licence category
 - who can apply for a licence (e.g. individuals, body corporates)
 - skilled and non-skilled eligibility requirements (e.g. qualifications, personal and financial probity)
 - other licence characteristics (e.g. exemptions or exclusions).
- Jurisdictional regulators would administer the system as delegates of the NOLA under the National Law.
- A jurisdiction would not be required to introduce licensing where it does not already do so. However, if licensing is introduced in the future, a national licence would be issued.
- Current state and territory licensees will be deemed across to the new system at its commencement on the basis of 'no disadvantage', in terms of the scope of work a licensee would be able to perform.
- Licence applicants will be able to choose between one year, three year and five year licence periods.
- Licence fees would continue to be set by jurisdictions and paid only to the licensee's primary jurisdiction.
- A licensee's primary jurisdiction for an individual would be the principal place of residence and for bodies corporate would be the principal place of business.
- Skills maintenance on an 'as needs' basis when directed by the licensing authority.
- There would be no requirement for any retesting at licence renewal time. If the licence is not renewed
 within three months of its expiry a new licence application would be required and the current qualification
 requirements met (former national licensees can present a lapsed licence of the same category held
 within the three years prior to application).
- There would be standard qualification and eligibility requirements across all jurisdictions and there would be no experience requirements for obtaining a licence.
- There would be no skills or business qualification requirement for a contractor's licence (contractors not
 holding a licence enabling them to undertake the technical work would need a nominee with the
 appropriate skills requirement).
- A range of unnecessary licence conditions would be removed.
- Personal and financial probity requirements would be made consistent.
- The process for skilled migrants would be streamlined.
- Licensees choosing to work in an additional jurisdiction would still need to meet any relevant jurisdictionspecific conduct and compliance requirements that apply to work they intend to perform.

Automatic mutual recognition

The 2009 Decision Regulation Impact Statement on the National Licensing System for Specific Occupations outlined two possible approaches to an automatic mutual recognition (driver's licence model) – unharmonised and harmonised. In the first, licences would remain unharmonised; that is, skills, non-skills and administrative requirements would not be harmonised, and each jurisdiction would continue to implement their existing arrangements. A licensee able to perform the work regulated in one jurisdiction would be able to perform that work in any other jurisdiction without an additional licence. In the second, jurisdictions would seek to harmonise the aspects of licensing so that requirements across the country are the same.

Automatic mutual recognition would provide some benefits but is highly unlikely to deliver the same level of benefits as national licensing. As highlighted in this RIS, the current licensing arrangements across the states and territories are not harmonised and vary in terms of licence categories, qualification requirements, and scopes of work. These variations between jurisdictions result in the restriction of workforce mobility, particularly in regional areas close to state borders and add increased costs to business and ultimately consumers.

Under either automatic mutual recognition model, an occupational licence issued by any jurisdiction would be valid in any state or territory in Australia, therefore improved national labour mobility would be achieved and the regulatory burden could be expected to be reduced. State and territory autonomy would be maintained and transition and implementation costs would be minimised. Jurisdictions would retain the legislative power to vary licensing requirements to meet circumstances arising in particular states over time.

The unharmonised approach would effectively import the complexities of each jurisdiction's licensing system into the other jurisdictions. Regulators would need to be familiar with the scope of work covered by every jurisdiction's licence categories in order to properly monitor work and compliance with jurisdictional requirements. Employers would also need to understand the difference licence types as, at present, mutual recognition processes ensure that licences issued in other jurisdictions are assessed and a 'local' licence issued so that the scope of work authorised is readily understood. The unharmonised option has the potential to increase consumer confusion, undermine the integrity of jurisdictional regulatory regimes and increase the potential for jurisdiction shopping.

Under the harmonised licence model, national mechanisms would be needed to coordinate the establishment and maintenance of the arrangements and resolve different jurisdictional views. A number of examples of past attempts to harmonise regimes have failed. Some advocates for harmonised licences have suggested that only those licences with clear equivalence could be harmonised, with others left unharmonised. For licences where no equivalence had been agreed, current mutual recognition requirements would need to continue. Such a two-tier approach would increase regulatory complexity. Difficulties are envisaged in maintaining consistency in legislative provisions without a common legislative basis. Costs would still be incurred in relation to policy development and legislative changes.

Under a harmonised automatic mutual recognition system, it is anticipated there would be a greater likelihood of resistance to reforms and therefore fewer opportunities to streamline and rationalise

licensing frameworks compared with a single national licensing system which has an independent licensing authority in place whose role it is to develop and implement licensing reforms.

Difficulties are also envisaged in maintaining consistency in legislative provisions in a harmonised system without a common legislative basis. While the governance costs arising from automatic mutual recognition are less obvious than those from national licensing, they are still present and need to be considered.

Either model of automatic mutual recognition has the potential to provide for enhanced labour mobility, with lower immediate transition costs. However, the complexities of operating such a system mean that it is unlikely to achieve the same level of harmonisation and deregulation as national licensing. This would mean that the benefits would be lower. Implementation would be complex and would require close and ongoing co-operation and co-ordination at all levels of policy development, regulation setting and compliance.

Automatic mutual recognition would give rise to a more complex, less transparent, higher risk environment with less opportunity for reduced regulation and a reduced prospect for the longevity of the reform over time. Many of these costs would fall on businesses as they try to operate within an extremely complex regulatory environment.

It is estimated that neither model would provide the same level of benefit as national licensing. Automatic mutual recognition is therefore not the preferred option.

Further discussion of stakeholder views on AMR are outlined in Chapter 2. An assessment of the possible impacts is contained in Chapter 4.

Status quo

Under the status quo option, the states would continue to operate their own very different licensing systems. Licensed workers would continue to be subject to the *Mutual Recognition Act 1992* when they wished to work in another state or states, and would need to apply for a licence and pay an additional fee in each state or territory in which they choose to operate if licensed in that jurisdiction. This option does not address current regulatory complexities, duplication across jurisdictions or impediments to a seamless national economy. The status quo is not the preferred option and is simply used as a benchmark for the costs and benefits of the other options presented.

No licensing and national licensing – benefits and costs

Table ES.1 sets out the quantified impacts associated with three of the proposed approaches: the two national licensing options (models A and B) and no licensing (except for the Commonwealth Arctick licence), as well as an estimate of the potential flow-through benefits associated with increased labour mobility² and returns to business.³ These impacts are presented with a number of

The analysis prorates for the refrigeration and air-conditioning sector the estimates associated with labour mobility prepared by the Productivity Commission as part of their 2009 Review of Mutual Recognition Schemes. For this estimate to be valid the specific assumptions made by the Productivity Commission would need to hold – namely that Australia is facing a 10 per cent increase in commodity prices above normal conditions and that these assumptions are also combined with an assumption for this analysis that mutual recognition is only 90 per cent effective in promoting labour mobility.

different elements so as to allow readers to consider the difference between establishment and ongoing impacts along with the jurisdictional impacts. A ten year net present value (NPV) is presented, which is consistent with the COAG Best Practice Regulation guidelines; however, the reform's effects could theoretically be considered over a longer time period, which would result in a larger net benefit (as the benefits are expected to continue beyond the ten-year time-period provided for in this analysis).

Table ES.1: Summary of the jurisdictional impacts of no licensing (except for the Commonwealth Arctick licence) and national licensing

	NSW	VIC	QLD	Total		
National licensing model A						
Ongoing net impact (\$ million per annum)	1.41	3.43	2.93	7.77		
One-off transition costs (\$ million)	(0.87)	(0.53)	(0.45)	(1.85)		
Total 10 year NPV (\$ million)	8.38	10.68	18.67	37.73		
National licensing model B	National licensing model B					
Ongoing net impact (\$ million per annum)	1.48	3.86	3.21	8.55		
One-off transition costs (\$ million)	(0.87)	(0.53)	(0.45)	(1.85)		
Total 10 year NPV (\$ million)	8.88	18.18	20.45	47.51		
No licensing (except for the Commonwealth Arctick licence)						
Ongoing net impact (\$ million per annum)	2.56	4.83	4.12	11.52		
One-off transition costs (\$ million)	(0.08)	(0.08)	(0.08)	(0.24)		
Total 10 year NPV (\$ million)	16.68	31.41	26.79	74.88		

NPV = net present value

Note: Brackets represent a cost

Many of the impacts under national licensing are common across both national licensing models A and B, as they relate to the removal of specific licensing requirements. The main difference between the two national licensing models is the treatment of worker (or 'individual, non-contractor') licensees. Model A would impose a cost in Queensland by introducing an occupational licence which this jurisdiction does not have currently. Both models A and B would impose a cost in Victoria by introducing contractors. Model B would generate benefits for workers in New South Wales and Victoria by removing the requirement for them to hold a licence.

No licensing (except for the Commonwealth Arctick licence) provides higher quantified benefits than either of the national licensing options. Under this option, benefits from the removal of specific licensing requirements would still be gained, and additional benefits would be generated for all licensees from the removal of the requirement to hold a licence for refrigeration and airconditioning work. However, this option is not supported by many in the industry. The Arctick licence is focused primarily on environmental protection objectives (specifically fluorocarbon or

Most of the benefits are estimated for licensees, such as less time spent filling out forms. However, business also benefits. For the purposes of this analysis, the business benefit is assumed to be equal to one third of the impacts for licensees.

ozone-depleting refrigerants) whereas state-based occupational licensing is concerned with health, safety and consumer protection. For example, the Arctick licence does not include the use of other types of refrigerants (e.g. natural refrigerants such as carbon dioxide, ammonia and hydrocarbons), which are increasingly being used in the refrigeration and air-conditioning occupation and which could increase the health and safety risks faced by practitioners, consumers and the general public. However, the qualifications required to obtain an Arctick licences are the same or very similar to those required by the three jurisdictions that licence the refrigeration and air-conditioning occupation. (See Chapter 3 for more details).

Industry stakeholders expressed the view that the compliance and conduct regimes, including the imposing of penalties, under the Arctick licensing scheme was limited and not as strong or as rigorous as current state licensing regimes. For example, the maximum penalties for 'carrying out work while unlicensed' offences under the *Occupational Licensing National Law Act 2010* is \$50,000, and under current Victorian legislation is over \$70,000, whereas under the Arctick licensing scheme, the equivalent offence is a strict liability offence with a maximum monetary penalty of \$1,100.

The no licensing option reflects the current regulatory approach of the majority of jurisdictions in Australia. No evidence of market failure or any increased health and safety or consumer protection concerns have been provided, by any jurisdiction that does not licence the refrigeration and airconditioning occupation.

Tables ES.2 and ES.3 provide a further break down of the aggregates above in order to clarify the specific impacts associated with the respective changes being considered. For detail on the specific nature of the policy options, please see Chapter 3.

Table ES.2: Ongoing net quantified impacts on an annualised per annum basis under the national licensing options and no licensing (except for the Commonwealth Arctick licence)

\$ million per annum annualised	National licensing model A	National licensing model B	No licensing (except for the Commonwealth Arctick licence)
Total ongoing impact	7.77	8.55	11.52
Removing licensing of workers (model B)	-	0.33	-
Removing licensing (no national licensing)	-	-	3.75
Introducing licensing of workers	(0.27)	-	-
Introducing licensing of business contractors	(0.12)	(0.12)	-
Increasing the number of contractor licensees	(0.09)	(0.09)	-
Removing the need to hold multiple licences	0.08	0.08	-
Removing the need to hold multiple licences – government	(0.07)	(0.07)	-
Consistent licence period (one, three or five years)	1.19	1.10	-
Decreasing qualification requirements	2.71	2.71	2.71
Removing business training	0.94	0.94	0.94
Removing restricted split system licence in Victoria	(1.72)	(0.99)	-
Removing duplicate testing	0.03	0.03	0.03
Removing fit and proper tests	0.004	0.004	0.004
Removing experience requirement	0.23	0.23	0.23
Labour mobility ^a	2.46	2.46	2.46
Business value-add	0.76	1.02	1.39
NOLA – operational costs	(0.08)	(0.08)	-

NOLA = National Occupational Licensing Authority

Note: Brackets represent a cost.

Table ES.3: One-off transition costs under the national licensing options and no licensing (except for the Commonwealth Arctick licence)

	National licensing model A	National licensing model B	No licensing (except for the Commonwealth Arctick licence)
Transition (\$ million)	(1.85)	(1.85)	(0.24)
Time for licensees to understand reforms	(0.86)	(0.86)	-
Business value-add	(0.29)	(0.29)	-
NOLA – set-up costs	(0.09)	(0.09)	-
National licence register – jurisdictional implementation	(0.12)	(0.12)	-
Government communication costs	(0.49)	(0.49)	(0.24)

NOLA = National Occupational Licensing Authority

Note: Brackets represent a cost.

^a the benefit from improved labour mobility is difficult to quantify. To provide an indication of the potential benefit, this RIS draws on the work undertaken in this area by the Productivity Commission. While its analysis is not specific to the impacts of national licensing, it does provide one possible scenario to indicate the potential impacts from an increase in the mobility of labour. Given that the benefits from labour mobility under national licensing are expected to be positive, the Productivity Commission's work has been used as a proxy for the impact under national licensing to demonstrate the potential benefit that may result.

In addition to the quantified impacts outlined in these tables, there are other impacts that have not been quantified as part of this analysis. These are minor and a qualitative analysis of these can be found in Chapter 4.

To provide context for the impacts set out in Tables ES.2 and ES.3, the following section sets out a high-level overview of the impacts of national licensing for specific sectors and affected licence holders.

Impacts for licensees

The high-level descriptions of the proposed changes set out in Tables ES.2 and ES.3 highlight that licensees are the major beneficiaries of the proposed changes. The reforms will have different impacts on licensees in New South Wales, Victoria and Queensland:

- Under no licensing (except for the Commonwealth Arctick licence), all licensees would benefit from not having to apply for a licence and the removal of business and additional technical competencies.
- Under national licensing, some licensees may incur a cost from needing to obtain a licence (contractors in Victoria under both model A and B, individual non-contractors in Queensland), and others may gain a benefit from no longer needing to be licensed (workers under model B in New South Wales and Victoria).
- Under both national licensing models (A and B), experience requirements would be removed and refrigeration and air-conditioning mechanics could obtain a licence sooner if they wished to do so, thereby more quickly earning the associated wage.
- The removal of business competencies would benefit new licensees in Victoria and Queensland.
- a reduction in qualifications for licences (in Queensland, a Diploma in Engineering (Refrigeration and Air-conditioning) or Advanced Diploma of Refrigeration and Air-conditioning Engineering is required to obtain the current Refrigeration, Air-conditioning and Mechanical Services Including Unlimited Design licence) would benefit new licensees.
 The qualification requirement for refrigeration and air-conditioning licence under national licensing is a Certificate III.
- Licensees would benefit from the removal of the need to hold multiple licences and a range
 of other requirements not deemed necessary and would benefit due to greater ease of
 mobility between New South Wales, Victoria and Queensland.
- Licensees in Victoria would benefit under both national licensing options from only having to hold one licence (they would not need to hold a mechanical services licence or registration, as well as an endorsement for refrigeration and air-conditioning).
- There would be transitional costs for licensees, which relate to the extra time licensees would need to dedicate to understanding the proposed changes. While the actual quantum

of benefits may be different to those estimated, it is expected that the transition costs would be small relative to the potential ongoing benefits.

• Under all options, the requirement to hold the Commonwealth Arctick licence would be unchanged providing a regulated and skilled workforce.

Impacts for business and consumers

Those who employ or use refrigeration and air-conditioning services will benefit from enhanced efficiency in that occupation and the potential for a more efficient flow of labour. Businesses, individuals and consumers will benefit from national consistency in licence categories and scopes of work Enhanced labour mobility will lead to better allocation of resources – in this case in refrigeration and air-conditioning licensees. How much this benefits licensees, business, consumers and the economy more broadly will depend on the extent to which the wages and the cost of refrigeration and air-conditioning services are unnecessarily high (or low) in one jurisdiction due specifically to the limitations of mutual recognition and the current licensing system in each state that licences the occupation.

The option chosen for the refrigeration and air-conditioning industry: that is no licensing or introducing national licensing model A or B, will have impacts both on small businesses, as well as single and multi-state businesses. For example, no licensing would provide the greatest benefits for single and multi-state businesses which would be able to have employees work across jurisdictions without having to hold a licence other that the Arctick licence.

Safety and consumer outcomes

The impact of the no licensing option versus the national licensing options on consumer and worker safety outcomes is uncertain. There are different views, for example, on the potential risks associated with the no licensing option. In particular, relying on the Commonwealth Arctick licensing system where the focus is on the handling of refrigerants rather than the trade work such as installation and maintenance is viewed by many stakeholders as not addressing the risks identified for the occupation(at Attachment E). This view has been strongly supported by industry and two of the three jurisdictions that license the occupation (Victoria and Queensland).

It is noted, however, that five jurisdictions do not licence the refrigeration and air-conditioning occupation and there has been no evidence of additional risks to consumer safety in those states and territories.

Impacts for government

There are a number of expected impacts on government and regulators in New South Wales, Victoria and Queensland associated with the potential reforms.

First, the removal of various licensing requirements, licensing categories or licences altogether will mean that fewer regulatory activities are likely to be undertaken by the regulators in New South Wales, Victoria and Queensland. At the same time, there will be a reduction in overall licence fees collected due to people no longer paying multiple licences across jurisdictions. Current jurisdictional fees recover costs for both processing and other activities such as compliance. Regardless of how costs are recovered, and leaving aside the benefits and costs of the licensing authority and the

national licensing register and database, simply abolishing the need for duplicative licensing should of itself lead to lower government costs and resource needs.

Second, under the national licensing options, jurisdictions are contributing their proportional share for the establishment and ongoing costs of the licensing authority and the national licensing register. These costs will be incurred on an ongoing basis, such as to ensure that current IT systems can feed into the database that supports the national licensing register. There is the potential for further offsetting savings that could occur at the jurisdictional level, in the area of additional policy development across the occupations relating to licensing, which could be consolidated into the licensing authority. The extent to which these gains are realised depends on a range of factors, however, including the extent to which jurisdictions continue to maintain policy advisory functions providing input to the national licensing authority.

While the cost – benefit analysis does not quantify the specific benefits associated with the national public licensing register there are positives that flow from its use. In particular, the national public register is expected to:

- facilitate the identification of any serious non-compliance by licensees in the three states that license refrigeration and air-conditioning rather than on a state-by-state basis as currently occurs
- enable consumers in New South Wales, Victoria and Queensland to confirm that any licensee they propose to engage is legitimately licensed, boosting public confidence in the industry and regulatory system.

Other features of national licensing

Fees

Licence fees will continue to be set in jurisdictional legislation and will therefore continue to differ across jurisdictions. It is proposed that licensees will pay their licence fee and renewals according to their primary place of residence or, in the case of an applicant being a body corporate or an individual who is a member of a partnership, the jurisdiction in which the body corporate or partnership's principal place of business is located.

The concept of setting a uniform national fee for each national licence was explored. The introduction of uniform fees would alter existing fees in many jurisdictions, and depending on the approach taken to national fee-setting, may affect the ability of some jurisdictions to continue funding existing activities such as compliance activities (without potentially introducing new or increasing state-based fees, charges or penalties).

Jurisdictions collectively received facilitation payments of \$100 million in 2008–09, from the Commonwealth, to progress the 27 deregulation priority reforms for a seamless national economy, including national licensing. It is likely that some of these payments will address costs of implementing national licensing in jurisdictions, thus minimising passed-on costs to business and individuals. There are also ongoing costs to maintain NOLA and the national licensing register. How these costs will be covered is a matter for individual jurisdictions to determine and they may, in

some cases, be passed on to licensees through increased fees. This Decision RIS indicates that the benefits of the reform outweigh these costs.

Licence period

The National Law provides that a licence may be granted for a period of up to five years. Following consultation with jurisdictions, all licence applicants will be able to choose between a one, three or five year licence period for all licence types (contractor and non-contractor) except for provisional licensees, who are only permitted a licence period of one year.

The periods for which a licence is offered can impact on costs, as longer licence periods require fewer applications and therefore less regulatory effort than shorter ones. However, longer licence periods can increase risks to consumers arising from renewal probity checks not occurring within reasonable timeframes and the licence register containing out-dated licensee data (even though there are requirements in this area of licensees under the national law).

While the most benefit could be obtained, theoretically, by increasing the licence term to an even longer period, or by making a licence permanently valid, in practice a regular renewal period has a number of benefits, although they are not easily quantifiable. These include ensuring the contact details for each licensee are kept up to date, which is essential for compliance practices, providing the regulator with the opportunity to remove records for those no longer holding a licence to carry out regulated work, so that the number of licensees can be monitored and allowing for periodic checks on the currency of requirements such as personal and/or financial probity. It also provides a set point at which licensees can be provided with information on changed requirements or standards.

Although a 10 year licence period and a perpetual licence have benefits of \$1.42 million and \$1.65 million (annualised ongoing impact) respectively, the non-quantifiable benefits associated with a more regular renewal period mean that, on balance, 5 years is the preferred longer licence period. The net quantifiable benefit of the 5 year period is \$1.19 million (annualised ongoing impact).

Current licence periods range from one to three years across the jurisdictions that licence refrigeration and air-conditioning work, as shown in Table ES.4. Licensees in states and territories with a licence period of one or three years would gain a direct benefit from being able to choose to obtain a licence for a three or five-year period under national licensing. This would enable individuals to determine what licence period would best suit their individual circumstances thereby avoiding unnecessary costs.

Table ES.4: Current licence periods in the jurisdictions that licence refrigeration and air-conditioning work

Jurisdiction	NSW	Vic	Qld
Contractor	1 or 3	1 ^a	1
Individual or non-contractor	3	3 ^a	Not licensed

^a In Victoria there is no contractor licence for refrigeration and air-conditioning work. Victoria does however make the distinction between a full licence holder and a registered tradesperson. While both of these licence categories allow an individual to contract with the public, for the purposes of presenting information in this section, full licence holders have been grouped with contractors and registered tradespersons have been grouped with individual or non-contractor.

Chapter 3 provides a discussion on the proposed one, three and five year licence periods. Chapter 4 also compares the impacts of a three-year, 10-year and perpetual licence period to illustrate the potential impacts of alternative licence periods. The agreed licence period(s) would apply to the full range of occupations captured under national licensing, not just the refrigeration and airconditioning occupation.

It is acknowledged that licensees in states and territories with a three year licence period would incur a cost if all licensees chose to renew their licence every year. Similarly, regulators would spend more time in processing these licence applications more often.

There will be an agreed transitional period, yet to be determined, during which licensees can use either a jurisdictional or national licence number. Existing licensees will be able to work in all jurisdictions as they will be deemed to have a national licence. Licensees will not be required to obtain a national licence card or documentation prior to the expiry of their current licence.

Responsibilities of the national authority and jurisdictional regulators

Under the national licensing option the National Occupational Licensing Authority would have two key roles. One is to be the central driver of future licence policy and reforms, including overseeing the consistent application of policy by jurisdictional regulators (as delegates of the licensing authority for licensing function); pursuing ongoing reform of licences, including to decrease regulatory burden as technology and industry practices change over time; reviewing occupational licensing policy over time; and overseeing the introduction of additional occupations. The second role is to maintain the national public licence register and its supporting central database. The key benefits associated with NOLA are not directly associated with licensing functions per se (see Figure ES.1), but rather flow over the long term from enhanced regulatory oversight and nationally coordinated and streamlined policy development.

Specifically, NOLA would have responsibility for implementing the national licensing system legislation, but, as stipulated in the intergovernmental agreement between the states and territories would delegate to the jurisdictional licensing agencies the operation of licensing services, for example, processing applications and carrying out enforcement and compliance activities. States and territories could use existing staff and infrastructure for these licensing functions, but would incur additional IT costs to interface their licensing systems and data with those of NOLA. Service agreements between NOLA and the jurisdictional licensing agencies will be used to establish consistent service delivery standards across these three states. NOLA will provide advice to the responsible ministerial council, currently the Standing Council for Federal Financial Relations, following input from its advisory committees.

The model whereby the central agency, NOLA, delegates administrative and operational elements of the national licensing system to the states and territories was agreed by the Standing Council for Federal Financial Relations in April 2009 following consultation which also canvassed the adoption of a single agency model

Figure ES.1: Responsibilities of the licensing authority and the delegated jurisdictional regulators



Consultation process and outcomes

A Consultation RIS outlining policy proposals for the establishment of a national licensing system for the refrigeration and air-conditioning occupation was released on 13 August 2012 and published on the www.nola.gov.au website. Approximately 2,000 stakeholders across all national licensing occupations who had previously indicated interest in the reform were directly notified of the release of the RIS.

Public information sessions concerning the Consultation RIS for the refrigeration and air-conditioning occupation were held during September 2012 in the three states that licence the occupation: New South Wales, Victoria and Queensland. In Western Australia and South Australia, where the occupation is not licensed, a small number of individuals presented their views while attending other occupational consultation sessions in Perth and Adelaide respectively. These sessions were promoted through emails to those registered to receive information on the reforms and advertised in key major metropolitan newspapers, and through the NOLA website. The information sessions on the refrigeration and air-conditioning occupation were attended by 66 people. Draft legislation for the reforms was also made publicly available at this time for comment.

Comments on the RIS and draft legislation were possible from the release of the Consultation RIS until 12 October 2012. 332 submissions were received. Many of these submissions were 'form template' submissions from particular areas or sectors of the refrigeration and air-conditioning industry.

The 'form template' submissions originated from two different states, Queensland and Victoria. A list of those providing submissions is provided at Attachment B. There was very little support for removal of licensing requirements for refrigeration and air-conditioning as it was believed it would be detrimental to the industry and to the quality of the work. Those who did support the removal did so because it would reduce cost impacts to licensees and the community.

The submissions supporting national licensing model A, proposed by the Refrigeration and Air-conditioning Interim Advisory Committee, did so because this model provided national consistency for all levels of licence holders through a single national licence, harmonised licence categories, scopes of work and qualifications and flexibility for both individuals and businesses within the refrigeration and air-conditioning industry. However, the majority of respondents sought additional changes to those proposed in the Consultation RIS.

Although many submissions supported the introduction of automatic mutual recognition, a large portion of these indicated support for national licensing model A if national licensing was the preferred option.

Stakeholder views on particular elements of the proposed approach are included in Chapter 2, which provides the rationale for the proposed model.

Conclusion/Recommendation

No licensing (except for the Commonwealth Arctick licence) is the preferred model, as it provides the highest quantifiable net benefit compared with both national licensing models according to the measures used in the publication, *Best Practice Regulation: a Guide for Ministerial Councils and national standard setting bodies.* The ongoing net annual impact of this option would amount to an estimated \$11.52 million.

National licensing model A is the option preferred by industry. This model follows, to a large extent, the proposals for categories, scopes of regulated work, eligibility requirements and other licence elements developed by the Refrigeration and Air-conditioning Occupations Interim Advisory Committee. Some modifications to the original proposal have been made based on additional information received from industry and the submissions process more broadly.

Stakeholder feedback contends that national licensing model A provides more appropriate mechanisms for addressing risk than national licensing Model B. However, no evidence has been provided to demonstrate that there is any more risk involved with either the no licensing option or national licensing model B. Whilst all models are deregulatory overall for all jurisdictions compared to the status quo, model A has some instances of additional regulation in some jurisdictions, e.g. Victoria is required to introduce a contractor licence and Queensland the occupation licence.

National licensing model A represents a benefit to the community, taking into account all impacts, such as labour mobility, consumer protection and health and safety, and has industry support.

1 General policy context

The Council of Australian Governments (COAG) in July 2008 agreed to wide-ranging regulatory reform to increase Australia's productivity and provide the environment for a seamless national economy.

Many of the challenges facing the Australian economy can only be addressed through more effective and coordinated regulatory arrangements. The COAG reforms aim to provide a more streamlined, consistent and targeted regulatory environment, reduce inefficiencies and duplication, removing red tape and facilitating flexible and productive operating conditions for businesses and workers across Australia. These reforms have the potential to make life simpler for businesses and consumers, while continuing to provide the necessary protections and access for workers, consumers and the community. National licensing is one of 27 key areas for regulatory reform agreed in 2008, the majority of which have now been implemented. Implementation of the remaining reforms, including national licensing, is being overseen by the Business Advisory Forum Taskforce, which is composed of senior state and territory officials.

There is no consistent national licensing approach in Australia. Each state and territory uses a separate licensing approach, with different licence categories, scope of regulated work and eligibility requirements. This hinders labour mobility across Australia and increases the regulatory burden for licensees and government.

COAG therefore agreed to develop a national licensing system with the following characteristics:

- cooperative national legislation
- national governance arrangements to manage standard-setting and policy issues and to ensure consistent administration and compliance practices
- all current holders of state and territory licences being deemed across to the new licence system at its commencement
- the establishment of a publicly available limited national register of licensees
- no legislative role for the Commonwealth in the establishment of the new system.

National licensing is initially being considered for four occupational areas, which were chosen based on the following selection criteria:

- at least one critical area of the occupation licensed across all jurisdictions
- all have been subject to the work on achieving full and effective mutual recognition
- the importance of the occupation to the economy in terms of level of demand, intrinsic mobility and number of licensees
- the volume and nature of mutual recognition difficulties.

The four occupational areas are:

- refrigeration and air-conditioning
- electrical occupations
- plumbing and gasfitting
- property occupations.

The development of a national licensing system was endorsed by the states and territories in April 2009 by the signing of the Intergovernmental Agreement for a National Licensing System for Specified Occupations (the Intergovernmental Agreement).

The implementation strategy of the 2009 decision foreshadowed further research and consultation to inform more detailed arrangements regarding the implementation of national licensing for each of the occupations identified. Policy development work was undertaken from 2009–11 and culminated in a number of options for national licensing, which were included in the Consultation RIS for each of the occupations identified and released for public comment between July and August 2012.

The objective of this Decision RIS is to consider feedback received on the options proposed in the Consultation RIS and any further information that has come to light, and to recommend a preferred option, which provides the highest net benefit to the community, taking into account all the impacts.

National licensing is a threshold reform. It sets in place national licensing eligibility requirements and the related disciplinary framework as the first step in developing a comprehensive national licensing scheme that could, once fully developed, encompass the requirements for both obtaining a licence and the behaviour and standards (conduct) required to maintain a licence.

Details on the policy development process undertaken, together with the objectives and principles which underpinned the work, and the advisory mechanisms used, are provided at Attachment C.

The behaviours and standards (conduct) to be met by licensees are not currently part of the proposed national occupational licensing reform. A separate reform to potentially harmonise conduct requirements, commencing with property occupations, is being considered by the Legislative and Governance Forum on Consumer Affairs (formerly the Ministerial Council for Consumer Affairs). The full benefits of a proposed national licensing system would be realised if this further reform were undertaken.

1.1 The Occupational Licensing National Law Act (2010)

The *Occupational Licensing National Law Act (2010)* (the National Law) has been enacted in six jurisdictions (New South Wales, Victoria, Queensland, South Australia, Tasmania and the Northern Territory). This Act is national framework legislation that seeks to establish national licensing.

The Bill for the National Law passed Western Australia's Legislative Assembly on 24 November 2010 and was referred to the Western Australian Standing Committee on Uniform Legislation and Statutes Review. The Committee did not support the Bill in its current form, and Western Australia will consider its position on the Bill based on agreement to a preferred model in the Decision RIS.

The Australian Capital Territory has reserved its right not to implement national licensing if the costs to the Territory outweigh the benefits.

The National Law provides the high-level framework for the national licensing policy and regulations. A copy of the National Law can be found on the national licensing website at www.nola.gov.au.

During the policy development process, it became clear that some amendments to the National Law will be required. The release of a draft Amendment Bill and draft regulations coincided with the release of the Consultation RISs and public comments were also sought on these.

2 Options for reform

This chapter provides a brief overview of the options considered for national licensing. A detailed description of key elements of the options and the rationale on which the preferred option is based is provided at Chapter 3.

Currently, three jurisdictions license the refrigeration and air-conditioning occupation: New South Wales, Victoria and Queensland. The other five jurisdictions, Western Australia, South Australia, Tasmania, the Australian Capital Territory and the Northern Territory, do not licence the occupation, however regulation of the occupation occurs through plumbing, electrical and building legislation where the regulation focus is on different aspects of refrigeration and air-conditioning work (see section 2.2). Individuals undertaking refrigeration and air-conditioning work must hold the Commonwealth Arctick licence (Arctick), which is required in every state and territory, and where necessary a restricted electrical licence.

The Arctick licence, a national licence in its own right, has an established licensing regime, with similar qualification requirements to those proposed under national licensing and a national public licence register already in place. It is a Commonwealth requirement that applies across all jurisdictions for any person working with ozone depleting refrigerants and who undertake work to install, service or repair an air conditioner, or any other refrigeration and air-conditioning equipment.

2.1 Options considered

The options for the licensing of the refrigeration and air-conditioning occupation are outlined below. It should be noted that the Arctick licence, issued under Commonwealth legislation, remains as a requirement for those working with fluorocarbon refrigerants in the refrigeration and air-conditioning occupation under all options proposed.

Option 1 – No licensing (except for the Commonwealth Arctick licence)

Under this option, the refrigeration and air-conditioning occupations would not be licensed under the national licensing system or by the individual states and territories, meaning that neither contractors nor workers would be required to hold a licence to undertake work in the occupation. This option reflects the current approach of most jurisdictions.

Option 2 – National licensing

This option proposes a consistent national approach to the licence categories, regulated work and eligibility requirements to obtain a refrigeration and air-conditioning licence. This would allow a person licensed in one jurisdiction to work anywhere in Australia, where the relevant work is licensed, without having to reapply for a licence or pay an additional fee in those jurisdictions. In the Consultation RIS, two models were proposed under this option:

National licensing model A

This model is the preferred option of the Interim Advisory Committee (IAC). It proposed licensing at a contractor and licence (occupational licence) level for:

- refrigeration and air-conditioning
- restricted refrigeration and air-conditioning (heat pump and split system installation)
 work

and licensing at the licence (occupational licence) level only for:

- a provisional refrigeration and air-conditioning licence.

National licensing model B: Partial regulation

This model proposed partial regulation of the refrigeration and air-conditioning occupation, with licensing at the contractor level for:

- refrigeration and air-conditioning work
- restricted refrigeration and air-conditioning (heat pump and split system installation)
 work.

Under this model neither the licence level (occupational licence), nor the provisional licence level would be required. The Commonwealth Arctick licence would be considered the 'occupational or worker licence'.

Option 3 – Automatic mutual recognition

This option proposed a 'driver's licence' approach to national licensing whereby each jurisdiction would continue to issue licences under either its existing jurisdictional categories and associated regulated work, or against a harmonised set of categories and work and licences that have been declared equivalent following agreement by the states and territories. In both cases, these licences would be recognised by every other state and territory that licenses refrigeration and airconditioning work, without the licensee having to apply for an additional licence or pay an additional fee to work in another licensed jurisdiction.

Option 4 – Status quo

Under this option, the states and territories would continue to license and regulate the refrigeration and air-conditioning occupation as they currently do.

2.2 Rationale for options

2.2.1 No licensing (except for the Commonwealth Arctick licence)

The COAG guidelines state in providing advice for decision makers, the option that generates the greatest net benefit for the community, taking into account all the impacts, should be presented as the preferred option. These guidelines make the commitment to establish and maintain effective

arrangements to maximise the efficiency of new and amended regulation and to avoid unnecessary compliance costs and restrictions on competition. Decisions about whether regulatory action is in the public interest should be informed by an assessment of the effectiveness of the proposed action in meeting the identified objectives.

The preferred model is that selected after balanced consideration of all factors: it focuses on the economic cost and benefit but also takes into account appropriate risk mitigation approaches, stakeholder views and the impact on existing industry practices, including niche markets.

Rationale for No licensing

Proposed by the COAG National Licensing Steering Committee (the Steering Committee), the no licensing option was considered because this option reflects the non-regulatory approach of most jurisdictions, given that the refrigeration and air-conditioning occupation is currently licensed only in a minority of jurisdictions: New South Wales (at contractor and occupational licence levels), Victoria (as an endorsement on the mechanical services licence and registration levels) and Queensland (at the contractor level only). In Western Australia, South Australia, Tasmania, the Australian Capital Territory and the Northern Territory, that do not licence the occupation, individuals undertaking refrigeration and air-conditioning work must hold the Arctick, and where necessary, a restricted electrical licence. Additionally, in South Australia this work is regulated as part of the building occupations, where the primary focus of licensing surrounds the structural integrity of the installation of a refrigeration and air-conditioning unit in a building (that is, the mounting of the unit and strengthening of trusses where required). This option was considered as no evidence was provided of market failure, or of any increased risks arising in jurisdictions that do not licence the refrigeration and air-conditioning occupation and because there was a perceived duplication in regulation between the Arctick and state-based licences.

The Commonwealth Arctick licence is an established national licensing regime, with similar qualification requirements to those proposed under national licensing and a national public licence register is already in place. The Arctick licence would continue as a requirement for those who work with ozone-depleting gases, as currently occurs in those jurisdictions that do not license this work, thus ensuring the Australian Government meets its international obligations under the Montreal Protocol. National restricted electrical and/or plumbing licences would also be required to undertake associated work on refrigeration and air-conditioning equipment.

The Arctick licence has beneficial effects in addressing risks such as consumer and worker safety (as identified at Attachment D). The Arctick licensing scheme ensures consistent regulation and skill requirements in relation to the use of the most common refrigerants used in refrigeration and airconditioning installations. It also requires the same level of general qualification to that proposed to obtain a licence in the occupation under national licensing. Separately, the restricted electrical licence encompasses the necessary skills and training required for the associated electrical work, and other legislation, such as dangerous goods, occupational health and safety, health and consumer law, would continue to apply regardless of which model is implemented. It is arguable that consumer risks are also covered by other legislation, such as consumer law, that apply in all jurisdictions.

While this option provides an apparent level of regulatory protection, both industry and regulatory stakeholders do not consider that it adequately addresses the risks for those undertaking regulated work, leading to increased risk to both workers and consumers. These risks include:

- the Arctick licence covers only the handling of fluorocarbon refrigerants and not the growing use of natural refrigerants (in particular, hydrocarbon refrigerants) which has the potential to affect the safety of workers and consumers
- the scheme has a focus on environmental protection objectives rather than the safety of workers and the public, and lacks a consumer incident prevention and risk-based mitigation approach
- there are limited compliance or conduct regimes in place.

It is considered by some jurisdictions, and by the industry itself, that there is duplication of separate regulation, licensing and training requirements for the refrigeration and air-conditioning occupation between the states and territories and the Commonwealth. For example, to be issued with the Queensland occupational gas work licence (hydrocarbon refrigerant), an individual is required to hold the Arctick licence as well as a Certificate III in refrigeration and air-conditioning. As the majority of those working within the refrigeration and air-conditioning industry also carry an Arctick licence, this duplication is seen as placing an extra burden on licence holders and increasing the compliance burden for governments. It has been suggested that NOLA works towards aligning the national licensing system and the Arctick licensing system in the future. However while this appears a sensible approach, there are significant complexities in achieving this outcome such as differing scopes of work, compliance activities and differences in the focus of regulation between the Commonwealth and States. These are discussed below in Rationale for national licensing model B.

These views were strongly supported by the consultation feedback.

Consultation feedback

A clear majority of submissions (approximately 80 per cent), including the Master Plumbers and Mechanical Services Association of Australia (MPMSAA), Communication, Electrical and Plumbing Union (CEPU) Plumbing Division, CEPU Electrical Division, National Communication and Electrical Association (NECA) and Refrigeration and Air Conditioning Contractors Association (RACCA), did not support the no licensing option. Only 2 per cent of all submissions supported this option, including the Australian Refrigeration Council (ARC), and the Automotive Air-conditioning, Electrical and Cooling Technicians of Australasia (VACA). The Business Council of Australia did not support occupational licensing for any occupation under national licensing if the risks were small and existing regulatory protections were sufficient.

Those who supported this option for licensing did so on the grounds that it provided the highest economic benefit, and the Arctick licence scheme already provides an existing national licensing system.

Strong views were expressed about the adequacy of the Certificate II qualifications required to obtain the Arctick split system installer's licence for other tradespersons, such as electricians. One submission expressed the view:

'An Arctick split installers licence DOES NOT give the Electrician any trade qualifications, experience or training in the refrigeration field and DOES NOT give them a qualification to actually do the work they are doing. It is only a licence to allow the handling of refrigerant while installing split systems under strict conditions that ARE NOT monitored or policed or punished when blatant acts of misuse and poor workmanship causing gas leaks occur.'

Stakeholders who opposed this option for licensing did so because they felt this option did not recognise or address the risks (at Attachment D) or health and safety requirements required for work in this industry. Many stakeholders stated that the Arctick licence was focused primarily on environmental protection objectives whereas state-based occupational licensing is concerned with health, safety and consumer protection. The Arctick licence does not have the same broad scopes of work as the current state-based schemes licensing this occupation, as its purpose is environmental concerns regarding fluorocarbon or ozone-depleting refrigerants. It does not include the use of other types of refrigerants (e.g. natural refrigerants such as carbon dioxide, ammonia and hydrocarbons). These natural refrigerants are increasingly being used in the refrigeration and air-conditioning occupation which could increase the health and safety risks faced by practitioners, consumers and the general public. However it should be noted that Queensland is the only jurisdiction to licence working with hydrocarbon refrigerants and the requirements to be issued with that licence include the holding of an Arctick licence. The Arctick licensing scheme does however, cover a broader range of licences including automotive air-conditioning, aviation transitional, refrigerant handling and for trainees, which are considered out of scope under national licensing.

'Form template' submissions received from Victorian stakeholders provided the following comments:

The use of non-fluorocarbon refrigerants is increasing within industry, for example, the growing use of hydrocarbons as the refrigerant in the installation of split-system units in a domestic setting. Importantly, these substances pose significantly elevated health and safety risks compared to working with fluorocarbons. The Arctick licensing scheme does not address the increasing risk profile in this area of work.

Were National licensing model B or the No Licensing option to proceed and the Arctick licensing scheme to become the sole licensing gateway for refrigeration and air-conditioning mechanics, work involving a non-fluorocarbon refrigerant would become unlicensed work.

The result would be that anyone, skilled or otherwise, could legally perform work on refrigeration and air-conditioning systems as long as it did not involve a fluorocarbon refrigerant. This is an unacceptable situation given the increasing risk profile of this work outlined above; the resultant threat to the health and safety of non-competent persons performing this work, consumers and the broader public would be acute.'

Concern was also expressed that the compliance and conduct regimes, including the imposing of penalties, under the Arctick licensing scheme were not as strong or as rigorous as current state licensing regimes. Currently in Victoria, licensed practitioners may be subject to audit on completed work for which compliance certificates must be submitted. Licence checks to ensure all work is undertaken by properly licenced practitioners also occur. This provides for the detection and resolution of defective or unlicensed work.

The legislation that underpins the Arctick licensing system does not provide for any similar monitoring or requirement for rectification of defective or unlicensed work nor does it allow for the range of penalties which can be imposed for non-compliant work under existing Victorian provisions and under national licensing. For example, the maximum penalties for 'carrying out work while unlicensed' offences under the National Law is \$50,000, and under current Victorian legislation the penalty is over \$70,000, whereas under the Arctick licensing scheme, the equivalent offence is a strict liability offence with a maximum monetary penalty of only \$1,100. Similarly, there is no requirement under the Arctick licensing system for licensees to hold insurance, which is currently mandatory in Victoria (but is not proposed for inclusion in national licensing).

The Victorian Government expressed the concern that the removal of consumer protection mechanisms under the no licensing option will leave consumers more vulnerable to non-compliant refrigeration and air-conditioning work and the consequent harms which can arise, as outlined in Attachment D).

Conclusion

No licensing (except for the Commonwealth Arctick licence) provides the highest quantifiable net benefits, compared with both national licensing models. The economic impact of this option indicated that the ongoing net annual benefit of choosing the no licensing option would amount to \$11.52 million nationally, compared to the national licensing Model A, which provides \$7.77 million and the national licensing Model B, which provides \$8.55 million.

The No licensing (except for the Commonwealth Arctick licence) option has been identified as the preferred option for the following reasons:

- Only three jurisdictions currently licence the refrigeration and air-conditioning occupation.
- This option represents the status quo in the five jurisdictions that do not license the refrigeration and air-conditioning occupation.
- No evidence was provided of market failure or any increased health and safety or consumer protection concerns in those jurisdictions.
- National licensing would provide a duplication in regulation.

2.2.2 National licensing model A

While the no licensing model has the highest net benefit, this Decision RIS builds on previous consultation findings that were supportive of a national licensing system and which were subsequently endorsed by COAG through the signing of the Intergovernmental Agreement for a National Licensing System for Specified Occupations (the Intergovernmental Agreement) and passage of the *Occupational Licensing National Law Act 2010* (the National Law).

Rationale for national licensing model A

This model was developed by the Refrigeration and Air-conditioning IAC with a view to improving flexibility for both individuals and businesses within the refrigeration and air-conditioning industry and reflects the views of that Committee. An Arctick licence is also required if working with

fluorocarbon refrigerants, as is a national restricted electrical licence and/or restricted plumbing licence for associated electrical and/or plumbing work.

National licensing model A does increase regulation in both Victoria (introducing contractor licensing) and Queensland (introducing occupations or 'worker' licence) as mentioned previously. The IAC viewed this model as the most 'efficient way to address the risks' identified for the refrigeration and air-conditioning industry (these are described at Attachment D). However, as the analysis in this Decision RIS shows, national licensing model A is a less efficient option to address the risks than no licensing or national licensing model B.

Consultation feedback

A considerable number of submissions supported national licensing model A but this was predicated on the removal of the restricted refrigeration and air-conditioning (heat pump and split system installation) contractor and licence levels. Following further review of this issue, it is proposed under national licensing model A that the restricted refrigeration and air-conditioning (heat pump and split system installation) contractor or licence levels proposed in the Consultation RIS, will be removed. The rationale for this is addressed in more detail in Chapter 3.

Submissions, including those from key stakeholders such as CEPU Electrical division, NECA and RACCA, supported the concept of national licensing, with those who indicated a preference for a national option, supporting national licensing model A. An overview of comments provided by stakeholders supporting model A provided the following reasons:

- national consistency for all levels of licence holders through a single national licence
- harmonisation of licence categories, scope of work and qualifications to include all refrigerants
- increased labour mobility for both contractors and workers
- paying for a licence once
- meeting the needs of industry and allowing for most contingencies that could be expected especially related to current industry practices
- a nationally recognised licence and the existence of a national licence register providing transparency and confidence for consumers.

NECA and RACCA both stated that they supported:

'The introduction of a full RAC licensing regime that covers all aspects of the vocation not simply regulation to prevent the release to atmosphere of global warming and ozone depleting refrigerant gases, a recognised failing of the current ARC regulatory process.

The inclusion of regulation of all refrigerant gases used in RAC systems which all contribute to the efficiency or otherwise of the systems which has a direct effect on the environment because of the dramatically increased power usage of inefficient systems.

The regulation of appropriate skill levels of practitioners in the industry which will have a direct effect on both the efficiency of RAC installations but also the mitigation of OHS risks

(fire and explosive) within the industry to both the installers and public alike. This is particularly important since the requirements of property owners to convert their systems to natural refrigerants because of the greatly increased costs of GWP refrigerants.

The public register of license holders similar to other licensed vocations would provide greater transparency of operators to the public.

We would add that in our experience both tradespeople and contractors alike do not question the additional costs associated with a vocational license because of the regulatory benefits gained from such regulation it is the current ridiculous multiplicity and differentiation of licenses between jurisdictions that causes problems.'

A large number of 'form template' submissions from Victorian stakeholders supported the introduction of option 3: Automatic mutual recognition rather than national licensing. It should be noted, however, that those who supported automatic mutual recognition, including the CEPU Plumbing Division, indicated support for national licensing model A if national licensing was the preferred option. For example:

- CEPU Plumbing Division expressed support for national licensing model A over model B. The
 use of the Commonwealth Arctick licence as the occupational or 'worker' licence in model
 B does not 'acknowledge the health and safety risks involved in the refrigeration and airconditioning industry'.
- John Bossy Refrigeration supports the 'no licensing' (other than the Commonwealth Arctick licence) option, however would support national licensing model A because 'the full licence is recognised'.
- Resq Refrigeration and Electrical Services did not support any of the options proposed, but
 would support national licensing model A because 'this requires a Certificate III
 qualification which enables the licensing of refrigeration and air-conditioning work as a
 separate occupation and ensures a technically competent workforce.'

Conclusion

The refrigeration and air-conditioning industry is seen to be changing rapidly due to a number of factors that include an increase in the use of natural refrigerants (such as hydrocarbons and carbon dioxide), which have a cheaper carbon pricing, and the introduction of new technology as the price of energy increases. National licensing model A is perceived by industry stakeholders as providing the best option to address these changes into the future.

Model A has ongoing benefits of \$7.77 million per annum. Despite being deregulatory overall, this model would introduce new regulatory requirements in Victoria and Queensland.

2.2.3 National licensing model B

National licensing model B proposes licensing of the refrigeration and air-conditioning occupation at the contractor level only, with the Arctick licence considered the occupational or 'worker' licence.

Under national licensing it is proposed that there be no qualification requirements for contractors; however a contractor must have a technical nominee with appropriate technical skills and hold a licence. Under model B the nominee would be required to hold the Arctick licence.

A national restricted electrical and/or plumbing licence would be required for the disconnection/reconnection of the refrigeration and air-conditioning equipment to an electrical or water supply (as occurs in those jurisdictions that do not currently licence the refrigeration and air-conditioning occupation).

Rationale for national licensing model B

This model was proposed by Queensland government for consideration during the development of the Consultation RIS and reflects the status quo in that jurisdiction.

The IAC considered a similar model very early in the policy development process and unanimously agreed that it was not a viable option for national licensing as this model did not address the health and safety or environmental risks identified for the industry (at Attachment D). There was also the potential for increased costs to jurisdictional conduct and compliance regimes due to the perceived loss of connection between the occupational (Arctick) licensing regulator and NOLA as the licensing regulator. There was also the concern that the Arctick licence does not, at this stage, deal with other environmental impacts, such as natural refrigerants. However it is acknowledged that these complexities would also exist under national licensing model A.

Victoria has indicated it would not consider the licensing of contractors for refrigeration and air-conditioning occupation and would not agree to the licensing of contractors where an occupational 'worker' licence was not also issued.

Consultation feedback

Approximately 7 per cent of the total submissions' feedback showed support for national licensing model B.

A clear majority of submissions (between 75 and 80 per cent) did not support model B as it was considered to not adequately address the risks, in particular health and safety risks, associated with work in the refrigeration and air-conditioning occupation. Others expressed the view that model B was too restrictive, and did not require qualifications or skills training, meaning that it was possible for unskilled, technically incompetent persons to undertake work.

A stakeholder from TAFE SA stated:

'Its costs could potentially be passed onto other businesses and/or responsible persons to enable regulators to cover the cost of conduct compliance. There would be a loss of connection between occupational (Arctick) and contractor (licensing authority) regulators. It could potentially remove the benchmarks that exist currently in certain jurisdictions, and may reduce the training standards within the industry. It does not deal with other environmental impacts.'

A number of key stakeholders, such as the CEPU Plumbing Division and MPMSAA, expressed the view that national licensing model B was unacceptable in principle and unworkable in practice. They stated that model B did not address the consumer, health and safety risks because the Arctick

scheme licence ('worker' licence) did not have an appropriate scope of work or maintain a compliance framework that would enable it to act as an effective licensing regime.

RACCA did not support this model because of:

'The absence of an appropriate regulatory regime to establish and maintain the skill levels of the tradespeople operating in the RAC industry.

The corresponding absence of an appropriate licensing regime to accommodate the recognition and control of overseas tradespeople entering the Australian RAC industry, particularly those already in Australia on temporary visas.

Licensing of tradespeople is an essential requirement to raise the standard of tradespeople operating within the sector and would establish a benchmark for consistency across all jurisdictions.

Licensing of contractors would greatly enhance professionalism within the industry and lift the efficiency and sustainability of businesses operating in this sector and provide greater security to the consumers in regard to the integrity of RAC installations.'

Several of the submissions, including those received from key stakeholders such as the CEPU Plumbing Division, the Australian Mechanical Contractors Association (AMCA), RACCA and Australian Institute of Refrigeration Airconditioning and Heating (AIRAH), expressed a desire for the alignment of the Arctick licensing scheme and national licensing. This would not only allow Australia to maintain its obligations as a signatory to the Montreal Protocol but also, importantly, would ensure consumer protection outcomes are maintained. It would also reduce the time and costs burdens imposed upon practitioners through the requirement to hold and renew two separate licences issued under two entirely different licensing regimes.

THE CEPU Plumbing Division comments:

'As the national licensing system is able to manage the full scope of competencies required by refrigeration and air-conditioning work processes, the Arctick licence should be incorporated into this system.

This would save refrigeration and air-conditioning practitioner's significant time and cost, whilst complying with federal environmental legislation.'

This position was also supported by the Interim Occupational Licensing Advisory Committee (OLAC) and the Australian Refrigeration Council (contracted to manage the Commonwealth Arctick licensing scheme on behalf of the Australian Government). While it appears a sensible approach, there are significant complexities in achieving this. The following challenges have been identified:

Under national licensing, refrigeration and air-conditioning licences would be legislated
under state legislation, while the Arctick system is legislated under Commonwealth law.
 Combining these regulatory processes is likely to require significant transfer of
responsibilities and changes to legislation. For example, shifting responsibility to a national
licensing system would involve passing relevant legislation across the Commonwealth and
each state and territory.

- The Arctick system, as prescribed by the regulations to the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989*, is broader than the scope of the national licensing proposed for refrigeration and air-conditioning occupation and includes different areas of regulation not being proposed under national licensing such as:
 - national licensing is focused on the licensing of work undertaken by technicians in the refrigeration and air-conditioning sector, while the Arctick scheme also covers a trading authorisation system for companies to acquire, recover, store or dispose of refrigerants
 - the Arctick system also extends to the regulation of activities in automotive airconditioning systems, the aviation, maritime, transport refrigeration and airconditioning sectors, refrigerant decanting and refrigerant recovery, none of which are proposed under national licensing
 - these components of the Arctick scheme would need to be maintained to meet legislative and international treaty obligations relating to the use of ozone-depleting substances and synthetic greenhouse gases. However, as noted above, they are not proposed for regulation under national licensing.
- Rather than streamlining regulation in the refrigeration and air-conditioning sector, the
 policy, compliance and enforcement component of the licensing schemes could be
 fragmented. For example, under its contract with the Department of Sustainability,
 Environment, Water, Population and Communities (DSEWPaC), the Australian Refrigeration
 Council (ARC) is responsible for compliance activities, while DSEWPaC retains responsibility
 for enforcement activities. Reassigning responsibility for the licensing system to NOLA
 would create administrative complexities: companies and technicians could be required to
 deal with separate agencies at the Commonwealth level, as well as the relevant delegated
 jurisdictional regulator under national licensing.

The last dot point above may be something that can be pursued by NOLA in the future following further analysis and review and applies to all options.

Conclusion

Quantitative analysis shows that this option provides a net benefit of \$8.55 million per annum. Some sectors of the industry perceive this option to increase risk and would therefore be difficult to implement. However, evidence of actual increases in risk has not been provided despite this being the status quo in Queensland. Queensland has indicated that it did not licence at the occupational level as there was a low incidence of defective work in that jurisdiction and they could not demonstrate any justification to introduce such a licence. Licensing at the contractor level has proved more effective and is supported by industry.

While this model represents a saving in New South Wales, which licences at both the contractor and licence (occupational) levels, by not licensing at the occupational licence level in that jurisdiction, in Victoria, it represents a significant change as it currently licenses at the licence or occupational 'worker' level only. Licence holders in these two jurisdictions would benefit through reduced expenditure on licence fees, and reduced costs associated with applying for the licence. This benefit to licensees is estimated to be \$0.33 million annualised per annum.

Victoria has indicated it would not consider the licensing of contractors for refrigeration and air-conditioning occupation and would not agree to the licensing of contractors where an occupational 'worker' licence was not also issued.

2.2.4 Automatic mutual recognition

Automatic mutual recognition was proposed by the Victorian government for inclusion as an option in the Consultation RIS. It had been previously discounted in the 2009 Decision RIS but was not costed at that time. The model addresses the issues of labour mobility and the regulatory burden associated with licensees operating across jurisdictions, and would incur lower transitional costs than a national licensing system. It was therefore deemed appropriate to reconsider it in comparison with national licensing.

Existing mutual recognition arrangements

Under existing mutual recognition processes, a licence holder who wishes to work in another jurisdiction must make an application, demonstrate that they hold a valid licence and pay an additional fee for an additional, 'equivalent' licence to be issued in the second jurisdiction. In some circumstances, conditions, restrictions or endorsements would need to be applied to the licence in the second jurisdiction to achieve licence equivalence. Work to achieve ministerial declarations of equivalence for the four initial occupational areas being considered for national licensing was undertaken over the period 2006–08 and details can be found at www.licencerecognition.gov.au. The Mutual Recognition Act 1992 only relates to individual occupational licences and not to business entities that are not individuals.

Automatic mutual recognition - unharmonised approach

Under an automatic mutual recognition unharmonised approach, the licence holder would automatically be allowed to perform the scope of licensed work authorised by their jurisdiction-based licence across all jurisdictions regulating that work, without applying for an additional licence or paying an additional fee. The regulated work and licence type would be whatever jurisdictions determine – it would not be harmonised or made consistent in any way. It would become the responsibility of the regulator and employers to understand the licensed work authorised by a licence issued by any jurisdiction as, unlike under existing mutual recognition arrangements, the licence would not be 'translated' into the regulatory terms of the jurisdiction of operation. In addition to the different types of standard licences, licensees with conditions or restrictions imposed for disciplinary reasons could move between jurisdictions and these variations may not be apparent from the licence card. It could therefore be expected that compliance monitoring would be substantially more difficult for regulators in this environment.

A licensee would need to ensure they did not carry out work for which they were not authorised. The differences in licence types and associated regulated work could raise the risk of licensees working outside their scope of work is second jurisdictions, potentially affecting consumer protection and health and safety.

This approach is similar to the arrangements that apply to a driver's licence, where a licence in one jurisdiction entitles the bearer to drive anywhere in Australia. However, it should be noted that the standard automotive driver's licence arrangement works because the regulated work – driving – is essentially the same in all jurisdictions. The different historical approaches to refrigeration and air-

conditioning licensing mean that the various types of regulated work are significantly more varied than driving.

The 2009 Decision RIS noted that, on examination, an unharmonised approach would not address issues of consistency or transparency, would increase the level of complexity for individuals and businesses (in understanding jurisdictional licensing and conduct differences) and has the potential to increase consumer confusion. It further noted that there are potentially perverse impacts on consumer protection outcomes by undermining the integrity of jurisdictional regulatory regimes and increasing the potential for jurisdiction shopping. It indicated that there was a significant risk that regulators would lose confidence in the arrangements over time.

Automatic mutual recognition - harmonised approach

To manage regulatory differences, jurisdictions could agree to harmonise licensing requirements. This could be undertaken initially where equivalence is more easily determined, or based on updated ministerial declarations of equivalence. The substantial work already undertaken in relation to the development of proposed national licensing arrangements could be used as a basis for this.

This approach would need to have a mechanism to facilitate harmonisation across jurisdictions. This could be managed through either dedicated resources (for example a funded body) or managed by a committee of officials representing jurisdictions. It is likely that, in the absence of a funded national coordinating mechanism, harmonisation would be difficult to achieve, and hard to maintain over time as there would be no process to resolve differing jurisdictional views.

Jurisdictions would retain the legislative power to vary licensing requirements to meet circumstances arising in particular states over time. This would have the potential to undermine any agreed equivalency, increase complexity and create uncertainty in jurisdictions which had not issued the licence. While there is a similar potential under the proposed national licensing arrangements for variation in licensing arrangements (for example the IGA includes provisions for jurisdictions to not adopt a licence where that work is not licensed), there are limited structural arrangements or requirements (such as the IGA and National Law for national licensing) which would work to contain differences over time.

Legislative change would be needed to the Mutual Recognition Act to allow recognition of business entities, and to jurisdictional legislation. Licence cards from different jurisdictions could contain different levels of information, causing uncertainty for consumers unless this was made more consistent. A national register of disciplinary actions would improve transparency for consumers and regulators alike but would need to be agreed and established. Such a register would not provide the full national register of information proposed under the proposed national licensing register and a process would need to be developed surrounding who would provide, maintain and service it, and agreement would be needed on how it would be funded.

If harmonisation was introduced as a staged process, with clearly equivalent licences included first and others left outside the system, temporarily or perpetually, further confusion could be created. For licences where no equivalence had been agreed, current mutual recognition requirements would need to continue.

Potential Impacts

It is difficult to fully estimate the cost of a harmonised automatic mutual recognition system as it is unclear which elements of the licensing system would be subject to harmonisation, which elements would actually be harmonised by jurisdictions, and how the harmonisation process would be managed.

There is the potential for an automatic mutual recognition model to capture some of the benefits that have been identified under national licensing model A but the extent of benefits achieved would depend on the level of agreement between jurisdictions. It is also clear that a harmonised system has the potential to increase labour mobility from that which is likely to be achieved under an unharmonised automatic recognition system.

Overall, it is expected that the benefits from a harmonised AMR arrangement would have benefits greater than a non-harmonised system (\$1.24m per annum) but less than those expected from national licensing (net benefits of approximately \$9.49m per year).

When examining what additional benefits can be achieved between the non-harmonised and harmonised AMR models for RACM, there are likely to be some additional benefits under a harmonised system flowing from:

- the removal of business training;
- removal of duplicate testing;
- removal of fit and proper tests; and
- removal of experience requirements.

Additional benefits could also be achieved in Victoria should it agree to the removal of the split system licence in Victoria and the requirement to hold a Certificate III in Mechanical Services.

Further benefits may also be achieved across jurisdictions if consistent licence periods were adopted.

It should be noted that benefits would only flow in relation to the extent that jurisdictions were able to agree on harmonisation which resulted in a deregulatory outcome.

There would also be transitional costs for the establishment of such a system. As stated above, it is difficult to fully estimate these costs given that further consideration would be needed as to how system development and implementation would be managed. It is expected there would be costs in relation to information provision to licensees, communications and the establishment of a register. While this model would not require the establishment of NOLA, it would nevertheless require the establishment of a state/territory mechanism to develop implement and maintain the licensing arrangement under this model. It is recognised that the work undertaken as part of the work to develop a national licensing system would contribute to the establishment of a harmonised automatic mutual recognition system and would minimise some system development costs.

Consultation feedback

A large number of 'form template' submissions from Victorian stakeholders supported the introduction of option 3: Automatic mutual recognition rather than national licensing with the majority offering no changes or further reasons than those cited within the form template. There was little consideration in the submissions as to how automatic mutual recognition was likely to work. Reasons given for supporting automatic mutual recognition often indicated that it would be easier to implement than national licensing and a concern that national licensing would add an 'additional layer' of regulation.

The majority of peak bodies, and general stakeholders, providing submissions supported national licensing, indicating that the AMR option was, in essence, a defacto national licensing scheme without the benefits of full national licensing and without the checks and balances that national licensing seeks to put in place.

Conclusion

Automatic Mutual Recognition is an alternative model for reform of licensing arrangements which has the potential to deliver some benefits to licence holders and the economy more broadly. It would deliver arrangements which go some way to promoting labour mobility but will not deliver the same level of benefits as the national licensing model proposed.

National licensing (Model A) has been estimated to deliver net benefits of approximately \$9.49m per year. An estimate of the benefits delivered by an unharmonised AMR system is estimated to be \$1.24m. There would be fewer transitional costs. It is difficult to estimate the benefits accruing from a harmonised mutual recognition system as it not clear as to what elements of any proposed system will be subject to harmonisation across all relevant jurisdictions. It is likely to deliver higher benefits than a non-harmonised system (\$1.24m per annum) but fewer (\$9.49m per annum) than the proposed model under national licensing.

2.2.5 Status quo

Under the status quo option the states and territories would continue to operate their own licensing systems with different jurisdictional policy development processes, applicant assessment standards and mechanisms and disciplinary outcomes for behaviour breaches. Licensed workers would continue to be subject to the requirements of the Mutual Recognition Act when they wished to work in another state or territories, and would need to apply for a licence and pay an additional fee in each state or territory in which they chose to operate.

This option would not address the current regulatory complexities, duplication across jurisdictions or impediments to a national economy. Nor would it meet the terms of the COAG Intergovernmental Agreement for a national occupational licensing system. This option is taken as the baseline against which the changes involved in the alternative options were costed.

3 Overview of options for licensing refrigeration and air-conditioning

This chapter provides an overview of, and rationale for, the no licensing (except for the Commonwealth Arctick licence) model, which is the preferred model.

It also provides key elements of the alternative model, national licensing model A, followed by the rationale for the approach to each element. (The draft legislation is based on the alternative model, to ensure that it is prepared, if needed.)

During the development of the national licence model for the refrigeration and air-conditioning occupation a risk-based approach was taken based on identified consumer and health and safety risks associated with refrigeration and air-conditioning work. An overview of these risks can be found at Attachment D. COAG's best practice regulation principles were also considered.

3.1 No licensing (except for the Commonwealth Arctick licence)

No licensing (except for the Commonwealth Arctick licence) has the highest quantifiable net benefits compared with both national licensing models, with indications that the ongoing net annual impact of this option would amount to \$11.52 million.

Under this model, the refrigeration and air-conditioning occupation would not be licensed by the states and territories. The Commonwealth's Arctick licence would continue to apply, as would, where required, national restricted electrical and plumbing licences. The Arctick licence (a national licence in its own right) has an established licensing regime, with the same or similar qualification requirements to those proposed under national licensing and a national public licence register already in place.

The no licensing (except for the Commonwealth Arctick licence) option was proposed as an option by the Steering Committee, for a number of reasons such as this option reflects the current regulatory approach of the majority of jurisdictions in Australia (only three jurisdictions currently licence the occupation) and there was perceived duplication in regulation between the national licensing system and the Arctick licensing scheme. It was also considered that other protections were in place to address health and safety, dangerous goods, environmental and consumer concerns occurring in this occupation. No evidence of market failure or any increased health and safety or consumer protection concerns have been provided, by any jurisdiction that does not licence the refrigeration and air-conditioning occupation.

3.1.1 Licence categories

The Commonwealth Arctick licensing scheme covers a broader range of licensing than is proposed under national licensing. Although the scope of regulated work for the Arctick licence centres on the handling of refrigerants and thus differs from the proposed regulated work under national licensing, it is an offence under section 111 of the *Ozone Protection and Synthetic Greenhouse Gas Management Regulations 1995* to work on refrigeration and air-conditioning equipment, without holding the relevant Arctick licence.

Section 111 states

- (1) A person commits an offence if the person carries out work in relation to RAC equipment and the person is not:
- (a) both:
- (i) the holder of a refrigerant handling licence; and
- (ii) entitled under the licence to carry out the work; or
- (b) both:
- (i) engaged in a phase of the manufacture of RAC equipment; and
- (ii) supervised by the holder of a licence granted under regulation 131 or 133 that entitles the holder to manufacture RAC equipment; or
- (2) For subregulation (1), carries out work in relation to RAC equipment means doing anything with a refrigerant, or a component of RAC equipment, that involves a risk of refrigerant being emitted, including:
- (a) decanting the refrigerant; and
- (b) manufacturing, installing, commissioning, servicing and maintaining RAC equipment, whether or not refrigerant is present; and
- (c) decommissioning RAC equipment in which refrigerant is present.

To obtain the relevant Arctick licence requires an individual to undertake the same qualifications required to obtain a national refrigeration and air-conditioning licence.

Table 3.1 provides details of all the Arctick licence categories and scopes of work issued for the refrigeration and air-conditioning occupation.

Table 3.1: Commonwealth Arctick categories of licence and regulated work for the refrigeration and air-conditioning occupation

Licence	Regulated work	
Full refrigeration and air- conditioning licence	To handle a refrigerant for any work in the refrigeration and air-conditioning industry, other than the automotive industry.	
Automotive Air conditioning licence (2 years)	To handle a refrigerant for any work on air-conditioning equipment fitted to the cabin of a motor vehicle.	
Restricted heat pump (split system) installation and decommissioning licence	To handle a refrigerant for the installation and decommissioning of any of the following: • a single-head split system air conditioner of less than 18kW • a 2-part hot water heat pump of less than 18kW • a 2-part swimming pool heat pump of less than 18kW.	
Restricted domestic refrigeration and air-conditioning appliance licence	To handle a refrigerant for either or both of the following: any work on domestic refrigeration or air-conditioning equipment any work on commercial stand-alone refrigeration equipment. 	
Trainee licence to handle a refrigerant while undertaking training	To handle a refrigerant while undertaking training and/or assessment in a classroom setting and at your work place under supervision. The supervisor must be the holder of a licence that entitles them to engage in work for which the licensee is being trained. This licence is valid for the period of training, which can be up to one year.	
Trainee classroom licence	To handle refrigerant in a classroom setting only. The licensee cannot handle refrigerant outside the classroom setting. This licence is valid for a period of training which can be up to one year.	
Aviation transitional licence	To handle a refrigerant for any work undertaken on air-conditioning equipment on aircraft.	
Transport refrigeration licence	To handle a refrigerant for any work on mobile refrigeration systems other than air-conditioning systems in the cabin of a motor vehicle.	
Refrigerant handler – transitional licence	To handle a refrigerant while decanting cylinders.	
Restricted refrigerant - recoverer's licence	To recover and handle refrigerant while decommissioning stationary and automotive refrigeration and air-conditioning equipment.	

The full refrigeration and air-conditioning licence (shaded in the table above) is the only licence to be considered when comparing to national licensing.

3.1.2 Arctick qualifications

The qualifications required to obtain the Commonwealth Arctick licences are shown in Table 3.2. These qualifications include only those relating to the licence categories proposed under national licensing model A. The shaded qualifications are the same as those that are required to obtain the

refrigeration and air-conditioning licence under national licensing. This further highlights the duplicative nature of regulation in those jurisdictions that license the occupation.

Table 3.2: Commonwealth Arctick qualifications

Licence category	Qualification
Refrigeration and air-conditioning licence	Successful completion of an apprenticeship as a refrigeration
	mechanic, e.g. Proficiency Certificate; or
	Trade Recognition Certificate: Refrigeration Mechanic; or
	MEM30205 Certificate III in Engineering Mechanical Trade; or
	MEM30298 Certificate III in Engineering – Trade (this is superseded by MEM30205 above); or
	UEE32211 Certificate III in Refrigeration and Air-conditioning; or
	UTE30999 Certificate III in Electrotechnology Refrigeration and Airconditioning (this is superseded by UEE32211 above); or
	Trade Certificate with a Trade Outcome of Refrigeration Mechanic
	and evidence of industry experience.
Refrigeration and air-conditioning licence:	MEM20105 Certificate II in Engineering; or
restricted to heat pump and split system installation	UEE20111 Certificate II in Split Air-conditioning and Heat Pump Systems; or
Installation	40488SA Certificate II in Split System Air-conditioning (non-current status).
Restricted domestic refrigeration and air-	MEM20105 Certificate II in Engineering; or
conditioning appliance licence (2 years)	UEE21810 Certificate II in Appliance Servicing-Refrigerants; or
	UEE30510 Certificate III in Appliance Servicing (superseded by UEE321111 Certificate III in Appliance Service); or
	UEE30507 Certificate III in Appliance Servicing; or
	UEE21807 Certificate II in Appliance Servicing-Refrigerants; or
	UTE20599 Certificate II in Electrotechnology Servicing (superseded); or
	UTE20504 Certificate II in Electrotechnology Servicing

Note: Shading denotes current qualification requirements. Non shading shows superseded qualifications

The Commonwealth Arctick licence covers only the licensing of those who handle fluorocarbons; nevertheless, the qualifications needed to obtain the Arctick licences are exactly the same as those proposed for national licensing. Other qualifications can be accepted to obtain the Commonwealth Arctick licence, and these qualifications may differ from current jurisdictional requirements. It is a misconception that holders of a Commonwealth Arctick licence do not have the same knowledge and skills as proposed licence holders under national licensing. Queensland has commented that

' the Arctick licence may rely on existing training pathways, but the focus of the work under the Arctick licence is not the same as the state licences, where the focus is on the trade work, not the discharge of gases. The Arctick licence would have been introduced at a time when there was already existing refrigeration and air-conditioning trade and the Commonwealth scheme was adding an additional requirement when it came to how these refrigeration and air-conditioning workers handled certain gases.'

However, it should be acknowledged that an individual cannot currently work in the refrigeration and air-conditioning industry unless they hold both a jurisdictional refrigeration and air-conditioning

licence (in those jurisdictions that licence the occupation) and the Arctick licence (in all jurisdictions, and the qualifications to obtain those licences require the same training.

The qualifications currently required to obtain the Arctick licence are identical to those required in New South Wales for licensing, and for the endorsement offered in Victoria. Queensland licenses at a contractor level only and requires additional financial and managerial qualifications for trade contractor licences. Queensland does not licence at the occupational or 'worker' level. The technical skills required for the Queensland licence – refrigeration, air-conditioning and mechanical services including limited design –are comparable to those required by the Arctick licence. The majority of Queensland licensees hold this 'limited' licence. It includes the same qualifications that are proposed to obtain all refrigeration and air-conditioning licences under national licensing.

Consultation feedback

Feedback showed that a clear majority of submissions (approximately 80 per cent), including the Master Plumbers and Mechanical Services Association of Australia (MPMSAA), CEPU Plumbing Division, CEPU Electrical Division, NECA and RACCA, opposed the no licensing (except for the Commonwealth Arctick licence) option. Only 2 per cent of all submissions supported this option including ARC, the Business Council of Australia and VASA.

Stakeholders that supported this option for licensing did so because it provided the highest economic benefit and the Arctick license provides an existing national licensing system, with an established public register and requires licence holders to have the same or similar qualifications to those proposed under national licensing.

Stakeholders who opposed this option for licensing did so because they felt this option did not recognise or address the risks (described at Attachment D) or health and safety requirements associated with the trade work in this industry. Many stakeholders stated the view that the Arctick licence was focused primarily on environmental protection objectives whereas state-based occupational licensing is concerned on health, safety and consumer protection. Concern was also expressed that the compliance and conduct regimes, including the imposing of penalties, under the Arctick licensing scheme was not as strong or as rigorous as current state licensing regimes and could result in risks to the consumer. Although other regulations are already in place, such as health and safety, dangerous goods, environmental and consumer regulations that would address these concerns, this is not perceived by industry stakeholders as adequate in addressing the risks in those jurisdictions that licence refrigeration and air-conditioning work.

Conclusion

No licensing (except for the Commonwealth Arctick licence), has been identified as the preferred option for the following reasons:

- Only three jurisdictions currently licence the refrigeration and air-conditioning occupation.
- This option represents the status quo in the five jurisdictions that do not license the refrigeration and air-conditioning occupation.
- No evidence was provided of market failure or any increased health and safety or consumer protection concerns in those jurisdictions.

• National licensing would provide a duplication in regulation.

3.2 National licensing option model A

The key elements of the alternative model, national licensing model A, are a revised version of that presented in the Consultation RIS, following analysis of the outcomes of the consultation and submission process. A comparison of these features compared with current licensing arrangements in each jurisdiction is provided at Attachment E.

3.2.1 Licence categories

The Consultation RIS proposed that the categories of licences and the corresponding scope of regulated work should be able to work effectively in current and future industry environments. Taking these elements into consideration and focusing on core areas of work assisted with the identification of the following proposed categories of licences under the alternative national licensing model A:

- refrigeration and air-conditioning licence
- refrigeration and air-conditioning contractor licence
- provisional refrigeration and air-conditioning licence.

The proposed national licensing arrangements across the jurisdictions under this model are shown in Table 3.3. It should be noted that a jurisdiction would not be required to introduce national licensing where it does not already do so. However, if national licensing is introduced in the future, a national license would be issued.

Table 3.3: Proposed national licence categories across jurisdictions - national licensing model A

Proposed national licensing	NSW	Vic	Qld	SA	WA	Tas	ACT	NT
Contractor licence								
Refrigeration and air- conditioning contractor licence	√	✓	√					
Full licence								
Refrigeration and air- conditioning	✓	✓	✓					
Provisional licence	Provisional licence							
Provisional refrigeration and air-conditioning licence	✓	✓	√					
Commonwealth licence (compulsory requirement for those working with ozone depleting refrigerants)								
Commonwealth Arctick licence	✓	✓	✓	✓	✓	✓	✓	✓

Note: Shaded area denotes that national licensing will occur in that jurisdiction for the occupation.

3.2.2 Regulated work

Regulated work means work that may be carried out only by a person licensed to carry out that work (i.e. the type of work authorised under that licence). For example, a contractor is licensed to

^{✓:} denotes that national licensing will occur in that jurisdiction for the occupation

contract for the work and a full licensee can undertake the prescribed regulated work. The following table describes the scope of regulated work proposed for each of the categories under national licensing model A.

Table 3.4: Proposed categories of licence and regulated work for the refrigeration and air-conditioning categories - national licensing model A

Category	Regulated work
Refrigeration and air-conditioning licence	Refrigeration and air-conditioning work means installing, replacing, repairing, altering, maintaining, commissioning or decommissioning refrigeration and air-conditioning equipment.
	Refrigeration and air-conditioning work includes decanting the refrigerant from refrigeration and air-conditioning equipment.

Refrigeration and air-conditioning work does not include the following:

- connecting or disconnecting refrigeration and air-conditioning equipment from a water supply, other than disconnecting the equipment from a water supply at an isolating valve adjacent to a mechanical component of the equipment
- installing refrigeration and air-conditioning equipment to the extent that the work involves structural building work
- · installing, replacing, repairing, altering or maintaining self-contained single phase plug-in domestic refrigeration units
- installing, replacing, repairing, altering or maintaining self-contained single phase plug-in refrigeration and airconditioning units for use in rooms and vehicles
- · installing, replacing, repairing, altering or maintaining air-handling and water systems in cooling towers
- the installation, by manufacturers of vehicles or containers used for passenger or product transport, of refrigeration and air-conditioning units during the manufacture of the vehicles or containers
- work associated with the manufacture of refrigeration and air-conditioning units
- installing, replacing, repairing, altering or maintaining refrigeration or air-conditioning equipment on:
 - a ship registered in Australia
 - an offshore oil platform.

Ship registered in Australia means a ship registered in Australia within the meaning of section 7A of the Navigation Act 1912 (Cwlth) other than a recreational vessel.

The restricted refrigeration and air-conditioning (heat pump and split system installation) licence, as canvassed in the Consultation RIS is not proposed to be included under national licensing.

3.2.3 Definition of terms

Domestic refrigeration unit means a refrigerator of a type normally used in:

- residential premises
- accommodation provided in a hotel or motel room.

Refrigeration and air-conditioning equipment means equipment:

- Used for heating and cooling of a building; and
- That uses a refrigerant.

Refrigerant means a prescribed substance. The following substances are prescribed in the refrigeration and air-conditioning regulations:

- ammonia
- carbon dioxide
- chlorofluorocarbon
- halon
- hydrocarbons (included following consultation process)
- hydrochlorofluorocarbon
- hydrofluorocarbon
- perfluorocarbon
- water used in an evaporative cooling system.

Refrigeration and air-conditioning equipment means equipment:

- used for heating or cooling a building
- that uses a refrigerant.

Single phase plug-in, in relation to a domestic refrigeration unit or a refrigeration or air-conditioning unit, means a system or circuit energised by a single alternating voltage.

Although specific refrigerants are listed under prescribed gases in the regulations, this does not mean that only licensed refrigeration and air-conditioning workers are able to work with these gases. The wording of the regulated work and the associated definition of refrigeration and air-conditioning equipment (above) ensures that those persons working with these refrigerants in other occupations are not prevented from doing so.

3.2.4 Endorsements

In addition to the broad categories of work outlined above, endorsements that will allow a person to take on an additional scope of work could be included under national licensing. Endorsements are dependent on a person holding an existing licence, and they are not intended as a stand-alone authorisation.

No endorsements are proposed for the refrigeration and air-conditioning occupation.

3.2.5 Nominees

The National Law provides that when a body corporate, a person in their capacity as a member of a partnership, or an individual who applies for a contractor licence, who does not personally hold a licence to carry out work that corresponds to that contractor licence, they will be required to nominate a nominee who has the relevant licence to undertake the work. This requirement

addresses the issue of a business company, in itself, being unable to possess skills and expertise or a relevant licence.

It is proposed that a nominee should be a director or an employee who holds an active work licence in the same category as the contractor licence, in order to establish a link between the nominee and the business as shown in Table 3.5. A nominee should agree to hold the responsibility of nominee (as set out in the relevant jurisdictional conduct legislation).

Table 3.5: Contractor (business) licences and the applicable technical nominee

Contractor (business) licence	Licence held by nominee
Refrigeration and air-conditioning contractor licence	Refrigeration and air-conditioning licence

Some jurisdictions do not currently require nominees for licenced occupations. As an example, South Australia has indicated that the introduction of nominees for would create a regulatory burden for businesses in the plumbing and gasfitting and electrical occupations. Following discussion between jurisdictions, it has been proposed that sub-contractors will also be able to be nominees if a jurisdiction so chooses. In jurisdictions where this occurs, a contractor that has only a sub-contractor nominee, and not a nominee who is a director or employee, will be unable to contract for work outside of the jurisdiction in which their principal place of business is located.

3.2.6 Exemptions

The National Law makes it an offence for an individual or a body corporate to undertake regulated work unless that individual or body corporate holds a licence or is exempt.

Under amendments proposed to the National Law a *person* must not carry out regulated work unless licensed or exempt (as per paragraphs (b) and (c) below). In addition, a licensee must not engage another person to carry out regulated work unless they are licensed or exempt, noting that regulated work includes contracting for regulated work. The proposal is that in order for an individual to carry out the regulated work, the individual:

- a) holds a licence to carry out or contract for the regulated work; or
- b) is exempt under the national law from the requirement to hold a prescribed authority to carry out the regulated work (e.g. a building licence); or
- c) is exempted by the licensing authority, in accordance with the national law, from the requirement to hold a licence to carry out the regulated work.

Table 3.6 shows the classes of persons identified by the policy development process who should be exempt from the requirement to hold a licence to carry out regulated work.

Table 3.6: Proposed exemptions

Policy description of proposed exemption	Exempt from licence category
An individual under a contract of employment and training, or as a student undertaking competency-based training or assessment, for the purpose of gaining qualifications necessary for obtaining a licence, and is under the supervision of an individual who is licensed to carry out the regulated work without supervision	All except a contractor
A person who is the holder of a prescribed authority (by whatever name called) and who, as part of carrying on business under that authority, contracts, for the provision of that regulated work other than under a contract of employment, with another person licenced to carry out that work.	All contractors

3.2.7 Non-skills-based eligibility requirements

Regulatory regimes develop criteria to determine an applicant's or licensee's suitability to hold a licence in specific occupations. For example, an applicant or licensee may be assessed against personal or financial probity conditions, skills (qualification) and experience requirements, age or health and fitness requirements or requirements to hold insurance. These criteria are designed to minimise risks associated with matters such as incompetent work and public and personal safety, and risks to property and money held in trust. Risks associated with refrigeration and airconditioning work are provided at Attachment D.

The National Law provides for the non-skills-based eligibility and renewal criteria that include personal and financial probity requirements. These are outlined below.

Relevant persons

The National Law, and the Amendment Bill for the National Law, provides for the identification of a relevant person(s) for a body corporate or a partnership, and that they will be subject to personal and financial probity checks. This aims to prevent a person from hiding behind a corporate structure, for example, where an individual has been banned from undertaking work in a licensed occupation and endeavours to use a corporate structure as a front to continue operating in the industry.

It is proposed that all relevant persons for the refrigeration and air-conditioning occupations, for a body corporate, be each director of the body corporate (as defined in the *Corporations Act 2001 (Cwlth)*), including any other individual who is in effective control of the business and ,for a member of a partnership, each member of the partnership.

An individual in effective control of the business of the body corporate is someone who is regularly or usually in charge of the business, or in a position to control or influence how the business is managed in a substantial way.

Personal probity eligibility requirements

The National Law, and the Amendment Bill for the National Law, provides for the personal probity requirements that will apply to individual occupational licensee and contractor licences. For occupational licensees, the personal probity requirements for refrigeration and air-conditioning will be whether the person or a relevant person for the person has within the previous 5 years been convicted of an offence under sections 9, 10 or 11 of the Law or a provision of a corresponding prior Act that corresponds to sections 9, 10 or 11. For contractor licensees (which includes a relevant person for a body corporate or a partnership), it is proposed that the personal probity requirements for refrigeration and air-conditioning occupations are:

- matters relating to the criminal history of the person
- matters relating to the conduct of persons in carrying out business, including, for example, matters relating to duties as a director of a corporation or the imposition of civil penalties or orders in relation to carrying out business
- whether the person or a relevant person for the person has within the previous 5 years been convicted of an offence under sections 9, 10 or 11 of the Law or a provision of a corresponding prior Act that corresponds to sections 9, 10 or 11.

NOLA will need to develop guidelines to ensure consistent application of probity requirements. Personal probity requirements are shown in Tables 3.7 and 3.8.

Table 3.7: Personal probity requirements for applicants

Type of applicant	Role	Personal probity requirement
Individual or body corporate	Contractor	Licensing Authority must have regard to: Matters relating to criminal history, including: offences relating to dishonesty offences relating to misleading or deceptive conduct offences relating to a person's obligations under a law relating to occupational health and safety. Matters relating to carrying out regulated work; engaging others to carry out regulated work, or advertising or offering to carry out regulated work unless the person carrying out the work is licensed or exempt including: within the previous 5 years, been convicted of an offence under section 9,10 or 11 of the Law or a provision of a corresponding prior Act that corresponds to section 9, 10, or 11 of the Law Matters relating to business conduct. This means any action taken against a person under the Corporations Act 2001 in relation to the following: failure to exercise powers with care and diligence failure to exercise powers in good faith and for a proper purpose misuse of position to gain advantage or cause detriment to a company misuse of information obtained by virtue of the person's position to gain advantage or to cause detriment to a company breach of the procedures under that Act when giving a financial benefit to a related party of a company failure to comply with financial reporting requirements under that Act
		breach of the duty not to trade insolvent.
Individual	Employee/occupational	 Licensing Authority must have regard to: whether the individual has, within the previous 5 years, been convicted of an offence under section 9,10 or 11 of the Law or a provision of a corresponding prior Act that corresponds to section 9, 10, or 11 of the Law

Table 3.8: Personal probity requirements for other persons

Type of applicant	Other person who is required to have a personal probity check	Personal probity requirement
Body corporate applying for a contractor's licence	Relevant persons for a body corporate	Licensing Authority must have regard to:
	,, p	Matters relating to criminal history, including:
		offences relating to dishonesty
		offences relating to misleading or deceptive conduct
		 offences relating to a person's obligations under a law relating to occupational health and safety.
		Matters relating to carrying out regulated work; engaging others to carry out regulated work, or advertising or offering to carry out regulated work unless the person carrying out the work is licensed or exempt including:
		within the previous 5 years, been convicted of an offence under section 9,10 or 11 of the Law or a provision of a corresponding prior Act that corresponds to section 9, 10, or 11 of the Law
		Matters relating to business conduct. This means any action taken against a person under the <i>Corporations Act 2001</i> in relation to the following:
		failure to exercise powers with care and diligence
		failure to exercise powers in good faith and for a proper purpose
		misuse of position to gain advantage or cause detriment to a company
		misuse of information obtained by virtue of the person's position to gain advantage or to cause detriment to a company
		 breach of the procedures under that Act when giving a financial benefit to a related party of a company
		failure to comply with financial reporting requirements under that Act
		breach of the duty not to trade insolvent.
Individual or body	Relevant person for a	Licensing Authority must have regard to:
corporate who is a	partnership	Matters relating to criminal history, including:
member of a partnership		offences relating to dishonesty
		offences relating to misleading or deceptive conduct
		offences relating to a person's obligations under a law relating to occupational health and safety.
		Matters relating to carrying out regulated work; engaging others to carry out regulated work, or advertising or offering to carry out regulated work unless the person carrying out the work is licensed or exempt including:
		within the previous 5 years, been convicted of an offence under section 9,10 or 11 of the Law or a provision of a corresponding prior Act that corresponds to section 9, 10, or 11 of the Law
		Matters relating to business conduct. This means any action taken against a person under the <i>Corporations Act 2001</i> in relation to the following:
		failure to exercise powers with care and diligence
		failure to exercise powers in good faith and for a proper

purpose
misuse of position to gain advantage or cause detriment to a company
misuse of information obtained by virtue of the person's position to gain advantage or to cause detriment to a company
 breach of the procedures under that Act when giving a financial benefit to a related party of a company
failure to comply with financial reporting requirements under that Act
breach of the duty not to trade insolvent.

Financial probity eligibility requirements

Financial probity eligibility requirements aim to ascertain whether the financial integrity of the applicant is such that the risk of consumers dealing with the licensed person is minimised. For example, one of the aims of the licensing of business entities (contractors) is to protect consumers from those who have been involved in the mismanagement of business. As with personal probity, the Licensing Authority will have the discretion to refuse the licence application if the set standards are not appropriate.

It is proposed that an applicant for a refrigeration and air-conditioning contractor's licence, the applicant and a relevant person for a body corporate or a partnership must have the standard of financial probity appropriate for the licence. It is also proposed that an individual applicant for the refrigeration and air-conditioning licence under national licensing must also not have any outstanding relevant fines. The only requirement on non-contractor licensees is the check on whether the individual has failed to pay a fine or penalty required to be paid under the national law or a prescribed law. While this is a new requirement for the majority of jurisdictions, this will not be an onerous requirement as the information will be readily available on licence registers and may be as simple as providing a declaration. The financial probity requirements proposed for each type of applicant and licence category are shown in Table 3.9 and 3.10.

Table 3.9: Financial probity requirements

Type of applicant	Role (or licence category)	Financial probity requirement
Individual	Licensee	Licensing Authority must have regard to whether the individual has failed to pay a penalty, fine or other amount required to be paid under the national law or a prescribed law.
Individual	Contractor	Licensing Authority must have regard to:
Person acting in the person's capacity as a member of a partnership Body corporate		 whether the person is bankrupt, insolvent, has compounded with creditors, entered into a compromise or scheme of arrangement with creditors or otherwise applied to take the benefit of any law for the relief of bankrupt or insolvent debtors.
		whether the person has within the last five years been a relevant person for another person who, during that five-year period was bankrupt, insolvent, compounded with creditors, or entered into a compromise or scheme of arrangement with creditors or otherwise applied to take the benefit of any law for the relief of bankrupt or insolvent debtors.
		 whether, for a person that is a body corporate or a member of a partnership, a relevant person for the body corporate or member is bankrupt, insolvent, has compounded with creditors,

Type of applicant	Role (or licence category)	Financial probity requirement
		entered into a compromise or scheme of arrangement with creditors or otherwise applied to take benefit of any law for the relief of bankrupt or insolvent debtors.
		whether the person has failed to pay a penalty, fine or other amount ordered by a court or tribunal in relation to the occupation.

Table 3.10: Financial probity requirements for other persons

Type of applicant	Other person who is required to have a financial probity check	Financial probity requirement
Body corporate applying for a contractor's licence or body corporate who is a member of a partnership	Relevant person for a body corporate or partnership	• whether a relevant person is bankrupt, insolvent, has compounded with creditors, entered into a compromise or scheme of arrangement with creditors or otherwise applied to take benefit of any law for the relief of bankrupt or insolvent debtors.

3.2.8 Qualification-based eligibility requirements

The National Law and regulations specify the prescribed qualifications and/or units of competency required for the issue of a licence. The aim of setting eligibility requirements based on qualifications is to protect consumers from engaging practitioners who may deliver substandard service due to failure to reach a minimum standard of competence. For qualification requirements to be effective, they should target identified market problems.

An individual contractor who does not hold a relevant occupational licence will be able to nominate a nominee who holds an occupational licence that corresponds to the contractor licence. Similarly, a company can apply for a contractor licence if the company nominates a nominee who holds an occupational licence that corresponds to the contractor licence.

Table 3.10 shows the qualification-based eligibility requirements that have been proposed for the refrigeration and air-conditioning licence and provisional licence categories under national licensing model A. Note that, as is current practice, a full apprenticeship leading to a Certificate III qualification would be considered the standard pathway to a licence, however it is not the only pathway to a licence. Alternate pathways, including recognition of prior learning and institution based learning already exist in most if not all jurisdictions currently. It should be noted that a number of industry stakeholders expressed strong concern that institution-only based training does not always provide the on-the-job experience necessary for a person to understand and perform the skills necessary for the job.

 ${\bf Table~3.11: Proposed~entry-level~qualifications~for~the~refrigeration~and~air-conditioning~occupation}$

Licence category	Qualification
Refrigeration and air-conditioning licence	UEE07 Electrotechnology Training Package
	UEE32211 Certificate III in Air-conditioning and Refrigeration
	OR
	MEM05 Metal and Engineering Training Package
	MEM30205 Certificate III in Engineering – Mechanical Trade including the following units of competency:
	MEM05006C Perform brazing and/or silver soldering
	MEM09002B Interpret technical drawing
	MEM10002B Terminate and connect electrical wiring
	MEM10009B Install refrigeration and air-conditioning plant and equipment
	MEM10010B Install pipework and pipework assemblies
	MEM12002B Perform electrical/electronic measurement
	MEM12023A Perform engineering measurements
	MEM18001C Use hand tools
	MEM18002B Use power tools/hand held operations
	MEM18049C Disconnect/reconnect fixed wired equipment up to 1,000 volts a.c./1,500 volts d.c.
	MEM18055B Dismantle, replace and assemble engineering components
	MEM18086B Test, recover, evacuate and charge refrigeration systems
	MEM18087B Service and repair domestic and light commercial refrigeration and airconditioning equipment
	MEM18088B Maintain and repair commercial air-conditioning systems and components
	MEM18092B Maintain and repair commercial and/or industrial refrigeration and/or airconditioning controls
	MEM18090B Maintain and repair industrial refrigeration systems and components
	MEM18095A Maintain and repair cooling towers/evaporative condensers and associated equipment
	MEM18096A Maintain, repair/replace and adjust refrigerant flow controls and associated equipment
Provisional refrigeration and airconditioning licence	UEE07 Electrotechnology Training Package
	An Offshore Technical Skills Record assessed against
	UEE32211 Certificate III in Air-conditioning and Refrigeration
	OR
	MEM05 – Metal and Engineering Training Package
	An Offshore Technical Skills Record assessed against
	MEM30205 Certificate III in Engineering – Mechanical Trade including the following units of competency:
	MEM05006C Perform brazing and/or silver soldering
	MEM09002B Interpret technical drawing
	MEM10002B Terminate and connect electrical wiring
	MEM10009B Install refrigeration and air-conditioning plant and equipment
	MEM10010B Install pipework and pipework assemblies
	MEM12002B Perform electrical/electronic measurement

Licence category	Qualification
	MEM12023A Perform engineering measurements
	MEM18001C Use hand tools
	MEM18002B Use power tools/hand held operations
	MEM18049C Disconnect/reconnect fixed wired equipment up to 1,000 volts a.c./1,500 volts d.c.
	MEM18055B Dismantle, replace and assemble engineering components
	MEM18086B Test, recover, evacuate and charge refrigeration systems
	MEM18087B Service and repair domestic and light commercial refrigeration and air- conditioning equipment
	MEM18088B Maintain and repair commercial air-conditioning systems and components
	MEM18092B Maintain and repair commercial and/or industrial refrigeration and/or airconditioning controls
	MEM18090B Maintain and repair industrial refrigeration systems and components
	MEM18095A Maintain and repair cooling towers/evaporative condensers and associated equipment
	MEM18096A Maintain, repair/replace and adjust refrigerant flow controls and associated equipment

Provisional licence

An Offshore Technical Skills Record (OTSR) is issued to overseas applicants who have been assessed as holding a certain level of competence to commence work in Australia pending training in local requirements. Migrants who have had their skills and qualifications assessed against the Australian standards would be entitled to hold to an entry-level provisional licence in that trade (subject to meeting any non-skills requirements). The OTSR will detail the gap training that the applicant will need to undertake when they get to Australia in order to obtain registration as a tradesperson. The applicant will need to work under supervision and complete gap training within a specified time.

To provide consistency in approach, it is proposed that the licensing regime for the refrigeration and air-conditioning occupation will also include a provisional licence to deal with migrants who have their skills assessed onshore against the same qualification requirements.

Experience requirements

It is not proposed to include experience as a licence eligibility requirement for national licensing.

No additional requirement for a period of experience will be imposed as a licence eligibility requirement, following completion of an apprenticeship or in order to progress between the different levels of full licence and contractor.

Additional testing

It is proposed that no additional testing by regulators will be required of applicants who have obtained the appropriate qualification for a licence.

3.2.9 Skills maintenance (continuing professional development)

Skills maintenance (or continuing professional development) aims to manage consumer risk by providing licensees who have general competence with the means for responding to changes in

practice and legislation and updates to standards and codes, to enrich their knowledge and skills and adopt new work practices.

Mandating continuing professional development is not proposed for inclusion in the licensing arrangements for refrigeration and air-conditioning occupations. Instead, when there is a specific education or information issue which may warrant a response from NOLA, it will work with the state and territory regulators to understand the issue and possible responses. The most appropriate option would be worked through with jurisdictions. There is agreement that ongoing CPD programs, including for example requirements for a specified number of hours of CPD per year, would not be considered as part of this mechanism and the focus will be on single-time responses to specific identified issues. The response would be aimed at achieving the desired outcome (i.e. greater awareness of the issue) with the minimal level of burden. In cases of imminent public health and safety risk, there are also mechanisms to ensure urgent action can be taken.

3.2.10 Licence period

The National Law proposes to provide that a licence for any licence type, except a provisional licence, may be granted for a period of one, three or five years, with the term to be selected by the licence applicant.

It is proposed that this flexible approach to licence periods be taken in order to best meet the needs of individual licence holders. For example, applicants may wish to hold licences for shorter periods if retiring or planning to sell a business.

3.2.11 Licence fees

Determination of where fees are to be paid will be premised on an individual's place of residence or, in the case of a contractor's licence, the principle place of business.

3.3 Rationale for proposed national licensing elements

3.3.1 Licence categories and regulated work

Regulated refrigeration and air-conditioning work is identified by clearly stated licence categories that reflect the type of work authorised under a licence. As previously noted, three jurisdictions license refrigeration and air-conditioning work as a separate occupation or as an endorsement on a plumbing licence, whereas other jurisdictions do not licence the occupation, but regulate it as part of plumbing, building or restricted electrical work where the focus is on different aspects of refrigeration and air-conditioning work. The categories of work currently regulated by each jurisdiction are identified at Attachment E.

The categories recommended for licensing of the refrigeration and air-conditioning occupation were viewed by the Interim Advisory Committee (IAC) as best reflecting current industry practice, in those jurisdictions that licence the occupation, and were premised on the need to ensure flexibility for individuals and business in the range of skills held, and to avoid unnecessary training costs for licensees.

Submissions commenting on the categories proposed were generally of two types: 'form template' submissions, which formed the majority of the total responses; and individual responses. Comments were received on a range of aspects of the proposed arrangements.

During the consultation and submission process, strong arguments were presented by industry sectors supporting the removal of the restricted refrigeration and air-conditioning (heat pumps and split system installation) contractor and licence categories.

The rationale relating to the inclusion or exclusion of specific licence provisions follows. This includes a synopsis of the stakeholder feedback on the various elements of the licensing model for the refrigeration and air-conditioning occupation.

3.3.2 Refrigeration and air-conditioning licence categories

Contractor licences

A contractor is authorised to contract with others to carry out regulated work. Of the jurisdictions that license the refrigeration and air-conditioning occupation only two, New South Wales and Queensland, license contractors separately. These jurisdictions have indicated that contractor licensing is undertaken because of the need to manage the risk associated with a licensee contracting with a consumer. The licensing of contractors also provides a mechanism for regulators to take action against a person or entity responsible for failing to meet contractual responsibilities, including completion of work to an acceptable standard. It enables the regulator to make a range of enquiries about the persons involved in the entities who will be dealing with the consumer if the licence is granted. Furthermore the contractor licence concept enables appropriate rights and responsibilities to be shared between skilled, technically qualified workers that directly undertake regulated work and those who own and/or operate the trading entity but may not have the technical skills personally to undertake the regulated work. It allows regulators to remove eligibility for those who may have exhibited inappropriate business behaviour such as placing a business into bankruptcy. Contractor licensing provides flexibility for business arrangements where the contractor does not possess the technical skills to undertake work and wishes to manage the business arrangements only.

Although there is no clear, quantifiable evidence of greater risk in those jurisdictions which do not license, the fact that two of the three jurisdictions that license the occupation have independently concluded a need for licensing at the contractor level provides an indication that regulators in those jurisdictions have identified a risk in not doing so. In jurisdictions such as New South Wales and Queensland, the contractual relationship is at the heart of the conduct compliance and disciplinary regimes and/or home warranty arrangements and removal would have wider implications for the overall regulatory approach.

In Queensland, for example, all contractors are required to pay a premium under the Queensland Home Warranty Scheme for each contract for insurable work (residential building work) valued at more than \$3,300. This protects the consumer if the contractor does not complete the contracted residential building work, the work is defective or the building suffers from subsidence or settlement. If contractor licensing is removed, it is likely that contractors will not be able to take out this insurance, which is linked to the holding of a licence which ensures that the person undertaking the work has a minimum specified level of competency. It should be noted that clause 3.7 of the Intergovernmental Agreement specifically provides that the national system will not compromise Queensland's existing home warranty insurance scheme. Additionally, deregulation of contractors would potentially result in unlicensed persons being able to contract for work and engage others to perform that work, which would reduce the ability of regulators to monitor compliance, establish

responsibility for defective work or monitor state conduct requirements relating to work supervision or financial probity. This would increase risk and reduce consumer protection in those jurisdictions which licence contractors. Should only occupational licensees, rather than any unlicensed person, be able to contract for regulated work, the number of available suppliers would be reduced as not all occupational licensees would have either the funds, capacity or desire to run a business.

Contractor licensing assists regulators with the identification and removal of rogue or poorly performing contractors. Queensland indicates that contractor licensing offers mechanisms for consumer protection, including relevant public register information on disciplinary history to allow consumers to make an informed choice; mechanisms for disciplinary and other action with the regulator being able to suspend or cancel a contractor's licence and the power to exclude persons, which assists regulators to identify phoenix companies and provides a strong incentive for contractors to comply with contract requirements and to adhere to regulator directions, including rectification orders. Removal of contractor licensing would therefore remove these protections.

Victoria does not currently issue separate contractor licences. In this jurisdiction, the technical work licence provides the holder with the ability to contract for work and business conduct is left as a matter for consumer law and the Corporations Act 2001. In Victoria any person can operate a refrigeration and air-conditioning business and contract for work. Those jurisdictions licensing contractors state that they seek to protect consumers in a more proactive manner so that consumers can have confidence that the businesses with which they are dealing have been vetted by government and have met the required business standards to enter into a contract. They state that consumer protection laws provide avenues for redress once something has gone wrong but do not provide the same protections and consumer assurances offered by the ability of a regulator to control who works in the sector in a pre-emptive manner. They stress that contractor licensing provides for a greater degree of up-front information on past business conduct, which supports risk profiling and informed monitoring practices and regulators are then able to manage instances of poor business conduct in a more responsive manner, including through disciplinary processes and conditions, and by the removal of the licence, if necessary. In jurisdictions without contractor licensing, where any business may contract for refrigeration and air-conditioning work there is no equivalent process to monitor or manage contractual behaviour at the early stage and there is a reduced ability for licence regulators to prevent phoenix operators.

In Victoria, refrigeration and air-conditioning licensees must hold current insurance coverage and the licence application form requires disclosure of personal probity issues, such as the commission of fraud or dishonesty offences, any insolvency history or offences against the Fair Trading Act (1985) or Trade Practices Act (1974). While disclosure of such history forms part of the overall assessment for licence eligibility, these probity responses are not monitored at any stage and there is currently no formal process for notifications to the Plumbing Industry Commission from Consumer Affair Victoria when breaches of consumer law are detected in relation to licensed work. A government representative from Victoria recently stated 'Victoria's current plumbing regulatory framework does not have jurisdictions over whether a contractor who does not hold a worker licence and is engaging in inappropriate business practices can be stopped from continuing to operate in that capacity. The proposed contractor model under (national licensing) could assist in dealing with this issue in Victoria.' Under national licensing, proposed personal probity checks would not include these basic checks because some criteria, such as the check for bankruptcy, would not be deemed

relevant to an employee, but to a contractor only. To introduce contractor licences in this jurisdiction would incur an estimated cost of approximately \$0.12 million annualised per annum.

While the most deregulatory and cost-efficient licence approach might suggest that contractor licensing could be removed, the need for contractor licensing continues to be strongly supported in those jurisdictions that license contractors. For that reason, it could be expected that removal of this level of licensing would result in alternative regulatory controls being introduced in each jurisdiction to compensate, leading to the unintended consequence of increased and divergent regulation in this area

The Consultation RIS proposed licensing of contractors for both refrigeration and air-conditioning work and restricted refrigeration and air-conditioning (heat pumps and split system installation) work. It was not proposed in relation to provisional licences.

Consultation feedback

For the two jurisdictions that license contractors in this occupation, New South Wales and Queensland, the contractual relationship is at the heart of conduct compliance, disciplinary regimes and/or home warranty insurance arrangements. This means that contractor licensing is undertaken in those jurisdictions because of the need to manage the risk associated with a licensee contracting with a consumer.

The Business Council of Australia proposed the removal of the separate contractor level of licensing; noting that the consumer protection it offered was already safeguarded through the Australian Consumer Law. However, in at least two jurisdictions, New South Wales and Queensland, the contractual relationship is at the heart of conduct compliance and disciplinary regimes and/or home warranty insurance arrangements and removal would have wider implications. It should be noted that the IGA (clause 3.7) states that national licensing must not compromise Queensland's existing home warranty insurance scheme.

The majority of submissions which specifically responded to the question on the need for contractor licensing supported contractor licensing, but only for the refrigeration and air-conditioning licence category. A restricted contractor licence relating to heat pump and split system installations was not supported by stakeholders, particularly by peak bodies such as the Air Conditioning and Mechanical Services Contractors' Association (AMCA), National Communication and Electrical Association (NECA) and Refrigeration and Air Conditioning Contractors Association (RACCA). In essence a Certificate II qualification was seen as not providing the knowledge or skills necessary to undertake refrigeration and air-conditioning work that included split systems work. Therefore a restricted contractor licence relating to heat pump and split system installations category was also not supported even though the contractor would not be required to possess qualifications for the contractor licence. Those who did not support either of the restricted licences expressed the view that only an individual with a full Certificate III qualification had the proper skills and training to undertake refrigeration and air-conditioning work AMCA and its members commented that issuing a contractor licence, at the Certificate II qualification level of training:

'... was a clear backward step which has the effect of "dumbing down" the trade.'

Further they expressed concern that their members:

"...regularly draw from the broader labour market for skilled labour, any "dumbing down" will have an impact on our sector of the industry in time."

Conclusion

As a result of the consultation and submission process, including the recommendation from the Interim OLAC, only one contractor licence is proposed for the refrigeration and air-conditioning licence category under national licensing model A. The refrigeration and air-conditioning contractor has the ability to contract for both refrigeration and air-conditioning work and restricted refrigeration and air-conditioning (heat pump and split system installation) work.

Little evidence has been received to support the need for a separate contractor licence for heat pump and split system installation work.

Refrigeration and air-conditioning licence

Refrigeration and air-conditioning work includes all facets of installing, replacing, repairing, altering, maintaining, commissioning or decommissioning refrigeration and air-conditioning equipment 'regardless of whether a refrigerant is present or not and includes work on heat pumps and split systems. Licensing of the refrigeration and air-conditioning occupation currently is undertaken in New South Wales, Victoria and Queensland. Other jurisdictions do not licence this work.

In the jurisdictions where this work is licensed, a full licence holder is able to perform work unsupervised and is able to sign off on the technical compliance, but cannot contract with the public.

Currently only New South Wales and Victoria regulate this licence category. Queensland however does not licence at the occupational level licence but only at the contractor level. This model would represent the status quo in New South Wales, a reduction in regulation in Victoria (Victoria licences this work through an endorsement on a mechanical services licence or registration) and an increase in regulation in Queensland (with the introduction of occupational or 'worker' licences). This licence category under national licensing was strongly supported at the (full) licence levels by the IAC and through submissions during the consultation process.

Conclusion

National licensing model A is the option supported by industry. It is not the preferred option in this Decision RIS as the no licensing option provides a higher net benefit. Additionally, there has been no evidence provided that identifies any additional risks associated with not having this licence, either in Queensland, where the technical skills are not licensed, or in the other five jurisdictions that do not licence RACM at all. As such this licence does not appear to meet COAG's objective of ensuring licensing arrangements are effective and proportional to that required for consumer protection, and worker and public health and safety, while ensuring economic efficiency and equity of access

Consultation feedback

Feedback from the submissions showed strong support for the refrigeration and air-conditioning contractor (approximately 85 per cent of electronic submissions and 59 per cent of written submissions) and (full) refrigeration and air-conditioning licence levels (approximately 94 per cent of the electronic submissions and 59 per cent of the written submissions). The feedback did not, on the whole, indicate any concern with this category at either (full) licence or contractor levels.

Restricted refrigeration and air-conditioning (heat pumps and split systems installation)

This new licence category was proposed by the IAC as a way to ensure flexibility for the industry where it is perceived that a high proportion of this type of work is currently undertaken by tradespeople who would only install heat pumps or split systems. It was also seen as a way to avoid unnecessary training costs for these workers. For example, requiring a tradesperson who only installs split systems and heat pumps to hold a full licence would increase the qualification requirements. Currently Victoria is the only jurisdiction to issue a licence in this category - a Mechanical Services - Restricted to Single Head Split Systems registration or licence. No restricted refrigeration and air-conditioning licence categories are issued by any other jurisdiction.

Removing the restricted licence covering heat pump and split system work may increase the regulatory burden for future applicants seeking to work on such systems, particularly in Victoria. Instead of being able to hold a restricted licence, as is currently available in Victoria, an individual would be required to apply for the full refrigeration and air-conditioning licence. The qualification requirements for this licence are more intensive (a Certificate III) than proposed for the restricted licence (Certificate II) and include skills that may not be relevant to a practitioner only wanting to work on single head split systems and heat pumps.

In Victoria there are currently 355 practitioners who hold registration or licensing in the Mechanical Services - Restricted to Single Head Split Systems class. These practitioners will be transitioned into the national licensing system, under the no disadvantage principle, and will be able to continue to undertake the work they currently do. As it is proposed that there be no restricted licences in the refrigeration and air-conditioning occupation under national licensing, new applicants will have to apply for the full refrigeration and air-conditioning licence.

Victoria states

'Removing the restricted licence is likely to mean fewer licensees are able to perform heat pump and split system work in future, resulting in reduced competition within that sector. This may lead to higher prices being paid by consumers of these services.'

Consultation feedback

Of the written submissions, approximately 87 per cent were part of a "form template' submission', and did not comment on licence categories. Of the remaining submissions, both electronic and written, there was strong opposition to the proposed restricted refrigeration and air-conditioning (heat pumps and split system installation) category at both the contractor (56 per cent of electronic submissions and 37 per cent of written submissions) and licence levels.

Views expressed centred on the lack of skills and poor quality of training that enabled other tradespersons such as plumbers and electricians to install split systems without fully understanding how refrigeration and air-conditioning systems work mechanically. This leads to problems such as leaking flares due to poor installation and the burn out of compressors from systems containing moisture due to systems not being correctly evacuated. This can result in both environmental risks and consumer protection issues.

The Communication, Electrical and Plumbing Union (CEPU) Plumbing Division expressed a view that the restricted refrigeration and air-conditioning (heat pumps and split system installation) licence category should be moved to the plumbing and gas-fitting occupations' mechanical services licence as this would provide a pathway for a mechanical services plumber to undertake this work. However no justification was forthcoming for this proposal.

Conclusion

Given the feedback from the consultation process, industry stakeholders including the Occupational Licensing Advisory Committees (OLACs) and by some jurisdictions specifically regarding concerns on the potential safety and cost impacts to consumers, the restricted refrigeration and air-conditioning (heat pumps and split system installation) category has not been proposed in the preferred model.

Provisional licence

A provisional licence is a licence issued to a person who, for specified reasons, may not be able to demonstrate the full range of skills required to obtain a licence. It allows a person to work under supervision while they achieve the full range of skills necessary for a licence. Without such licences, skilled migrants may not be able to pursue their occupation, as they would have no experience of working to Australian standards and therefore could not obtain a licence allowing them to work.

This licence authorises a licence holder to perform the regulated work for the category of licence only if they work under supervision while they complete 'gap' training in the Australia-specific requirements and standards necessary to be granted a qualification. To provide consistency in approach across the trade occupations, the licensing regime for the refrigeration and airconditioning occupation should include provisional licences to deal with both offshore and onshore assessed migrants while they complete training in the Australia-specific requirements and standards necessary to be granted a qualification. The same qualification requirements (and gap training) would apply to both offshore- and onshore-assessed applicants. Trades Recognition Australia, which manages the migrant assessment process, is currently examining the arrangements that would apply onshore with a view to implementation in 2013–14.

A provisional licence is not proposed for apprentices and trainees, because the work undertaken is under the supervision of an employer, who is accountable for the work.

Consultation feedback

A large number of 'form template' submissions from Victorian stakeholders indicated that the provisional licence category was too restrictive by only issuing the licence to migrants. These submissions stated that the provisional licence category should be expanded to reflect current Victorian practice which allows a provisional licence to be issued to local applicants in all classes of plumbing work (such as mechanical services) and specialised plumbing work (such as refrigeration and air-conditioning). The opinion was expressed that, as currently proposed under national licensing, provisional licences would be restricted to a significantly smaller pool of persons than is currently the case in Victoria and that local Australian applicants will be disadvantaged as the proposal closes off a current pathway to registration. The CEPU Plumbing Division stated:

'In particular, this policy means that licensees training for a licence in an additional class of work will be unable to undertake any supervised work in that additional class as they would be able to do under current provisional registration arrangements.'

Conclusion

Victoria's approach to provisional licences would reflect a significant change to that proposed nationally and would have implications in other jurisdictions where such an approach has not been adopted. The approach proposed in model A ensures a reliance on the apprenticeship system for those undertaking initial training in Australia. The provisional licence proposed, as contained in this occupation and others under national licensing, is solely focused on those who have trained overseas and aims to ensure their skills base is matched to Australian requirements.

No strong arguments or evidence was provided for any changes to the provisional licence proposal and it is therefore recommended that the provisional licence proposal remain unchanged for both offshore and onshore assessed migrants.

Proposed scope of regulated work

Specific issues, raised during the policy development or submission processes concerning the proposed regulated work, are outlined as follows:

Consultation feedback

The majority of respondents supported the scope of regulated work for the refrigeration and air-conditioning contractor, full licence and provisional licence categories.

A small number of submissions did not support the exclusions within the refrigeration and air-conditioning licence category, in particular those relating to vehicles and ships. No evidence was provided for the inclusion of these in this licence category. The IAC made the decision that this work did not require licensing as it was considered outside the scope of its work, the risks of the occupation did not warrant its inclusion in national licensing and, as this work is not currently licensed in any jurisdiction, it would be an unwarranted increase in regulation and cost. It was also considered that these areas were sufficiently covered by the Arctick licensing scheme.

The scopes of regulated work for the restricted refrigeration and air-conditioning (heat pump and split systems installation) licence and corresponding contractor licences were not supported in written submissions including those from key stakeholders. The lack of support was predicated on the lack of support for both of the restricted licence categories and the proposed corresponding qualifications. This is outlined above.

3.3.3 Endorsements

Endorsements are authorisations to perform specialist work available to those who hold a specified existing licence. They allow the holder to carry out this additional work if they have met the skill requirements required for the endorsement. All jurisdictions issue endorsements but the work they cover differs between jurisdictions. No endorsements were initially proposed for the refrigeration and air-conditioning occupation under national licensing.

The Queensland government has advocated for the inclusion of an endorsement under national licensing 'to carry out work involving hydrocarbon gases' (not covered by the Arctick licence) as it

views hydrocarbons as being highly flammable and therefore high-risk. Queensland is the only jurisdiction to licence the handling of hydrocarbon refrigerants and requires a gas work licence (hydrocarbon refrigerants) for any person who installs, commissions and services domestic and commercial refrigeration units along with split system and other air-conditioners.

Hydrocarbons are part of the 'natural' refrigerant family which also include ammonia and carbon dioxide which have been used as refrigerants in Australia and internationally for many years. Queensland has not undertaken to licence other natural refrigerants such as ammonia or carbon dioxide but requires a person who installs, commissions and services domestic and commercial refrigeration units along with split system and other air-conditioners to hold a gas work licence (hydrocarbon refrigerants) and undertake three specific units of training. Applicants are considered on an individual basis and must hold a Commonwealth Arctick licence, along with relevant refrigeration competencies, such as the Certificate III Refrigeration Mechanic. Three possible licences are then likely to be required by an individual.

Other jurisdictions do not differentiate hydrocarbons from other refrigerants, and instead regulate it as part of the work of the refrigeration and air-conditioning licence or under other legislation, such as gas, dangerous goods, occupational health and safety or environmental (note, this will not change under national licensing).

The IAC, during the licence policy development process, agreed that, as the regulation of these natural refrigerants occurs in all jurisdictions through other legislative means, such as gas, dangerous goods and occupational health and safety legislation, there was no need to duplicate regulation by including an endorsement under national licensing. It was also considered that, although there has been some evidence that there is a risk of accidents occurring while using hydrocarbon refrigerants, there appeared to be no real evidence of any market or safety failure in any jurisdiction that would require such an endorsement for the refrigeration and air-conditioning occupation.

The ElectroComms and Energy Utilities Industry Skills Council have undertaken a project called the Development of Natural Refrigerant Training Resources to Up-skill Refrigeration and Air-conditioning Workers. The main objective of this project is to provide gap training for those working in the refrigeration and air-conditioning occupation to ensure that workers are trained in the safe handling of natural refrigerants (hydrocarbons and other natural refrigerants such as ammonia and carbon dioxide) by developing learning and assessment resources and to deliver a train-the-trainer program for the units included in the UEE07 and UEE11 Training Packages. While these are currently elective units, it is possible that these units may become part of the compulsory or core units within these training packages in the future.

Introducing an endorsement for working with hydrocarbons, although not costed, would impose a significant burden on licensees in that they would have to undertake the three units of competency proposed by Queensland as well as hold, and pay for an endorsement in addition to their licence.

Following the consultation process and consideration of the evidence provided regarding the potential risks to health and safety it is proposed that hydrocarbons become a prescribed substance in the regulations.

Further work may be required by NOLA in the future, in conjunction with relevant Industry Skills Councils and regulators to investigate whether that the handling of natural refrigerants, including hydrocarbons, be included in the UEE and MEM training packages.

Consultation feedback

Over 70 per cent of respondents, including several key stakeholders such as the Communication, Electrical and Plumbing Union (CEPU), Australian Institute of Refrigeration Airconditioning and Heating (AIRAH), National Communication and Electrical Association (NECA), Refrigeration and Air Conditioning Contractors Association (RACCA) and Automotive Air-conditioning, Electrical and Cooling Technicians of Australasia (VASA), supported the inclusion of hydrocarbons as a prescribed substance rather than as an endorsement under national licensing. As innovation in the refrigeration and air-conditioning industry brings changes in technology, the use of hydrocarbons and other natural refrigerants (such as ammonia and carbon dioxide) is on the increase. This may result in an increase in risk for workers and consumers. A small number of submissions stated that the inclusion of hydrocarbons in the list of prescribed substances would give this gas the same recognition as the other natural refrigerants (ammonia and carbon dioxide) that are prescribed under national licensing. A separate submission viewed the Queensland hydrocarbon licence as an unnecessary duplication in regulation that imposed an unnecessary burden on licensees, and increased red tape in that jurisdiction.

The Australian Refrigeration Association (ARA) commented that:

'The licensing system should include all possible refrigerants and therefore should add hydrocarbons, air and water to the list of prescribed refrigerants.'

It was also suggested that training in the use of natural refrigerants be included in the training packages. This training may include the three units from the electrotechnology training package as specified in the Consultation RIS.

The CEPU Plumbing Division suggested the inclusion of the unit 'MEM18086B Test, recover, evacuate and charge refrigeration systems' be prescribed in the licensing qualification requirements which covers training relating to the handling of hydrocarbon refrigerants. They also suggested that, with the volatile nature of these types of refrigerants as well as their emerging use within industry, further investigation into the manner in which relevant skills are delivered within the training packages may be required.

Further, AIRAH suggested that a licence should be required for work in relation to all systems that use a 'prescribed substance' as a refrigerant and therefore the definition of a prescribed substance should be:

'...any substance used as a refrigerant in a refrigeration vapour compression or absorption system.'

This would enable the inclusion of any new refrigerant that may be developed to be encompassed in the national licensing system.

Conclusion

Introducing an endorsement for working with hydrocarbons, although not costed, would impose a significant burden on licensees in that they would not only have to pay for the endorsement in addition to their licence, as currently occurs in Queensland as this licence is issued by a separate regulator, but also pay to undertake the three units of competency proposed by Queensland. Under national licensing however it would be up to the jurisdictions to decide what if any fees would apply if an endorsement was agreed.

Following the consultation process and consideration of the evidence provided regarding the potential risks to health and safety it is proposed under this model that hydrocarbons become a prescribed substance in the regulations.

Further work may also be required in the future to ensure that the handling of natural refrigerants, including hydrocarbons, be included in the UEE and MEM training packages.

3.3.4 Nominees

The requirement for a nominee addresses the issue of a body corporate, in itself, being unable to possess technical skills and expertise or licence, or situations where an individual, who is a contractor, does not hold those skills and expertise. If a contractor does not hold a licence to undertake the relevant technical work, they must nominate a nominee who holds the occupational licence in order for the contractor to contract for that work. The intention of requiring a nominee is to establish a link between the nominee and the business so that responsibility can be readily determined in relation to compliance and enforcement. The following arrangements were proposed in the Consultation RIS for the different types of applicants:

- in the case of a body corporate, a nominee must be a director or an employee of the body corporate
- in the case of an individual who is a member of a partnership, the nominee must be a partner in the partnership,
- in the case of a partnership involving a body corporate, the nominee must be a director of a body corporate that is a partner in the partnership or an employee of the partnership or one of the members of the partnership
- in the case of an individual, the nominee must be an employee of the individual

Across all occupations all jurisdictions except South Australia currently require a contractor who does not have the technical skills or licence to perform regulated work to nominate a nominee who possesses technical skills and licence. Following discussion between jurisdictions, it has been proposed that individual jurisdictions will be able to choose to allow sub-contractors to fulfil the role of a nominee, however in jurisdictions where this occurs, a contractor that has only a sub-contractor nominee, and not a nominee who is a director or employee, will be unable to contract for work outside of the jurisdiction in which their principal place of business is located. For the refrigeration and air-conditioning occupation, both New South Wales and Queensland currently require nominees and usually require an employment-type link between them and the contractor, for this reason. A nominee must consent to undertake the role to prevent nominations occurring without consent.

Nominees are an important part of compliance and enforcement regimes, ensuring that there is a clear link between the contractor and workers performing the refrigeration and air-conditioning work. Queensland has provided the following rationale for a nominee requirement:

The nomination of a particular responsible person allows the policing of persons responsible for defective work. In many cases, defective electrical work associated with an accident or incident may have been carried out by any one of a large number of persons. Having a qualified technical person, or nominee under the National Law, who signed off the work, makes sure that a responsible person cannot evade investigation and compliance action.

New South Wales provided the following in support of a nominee requirement:

The possession of a contractor licence for a given occupation implies an understanding of the technical work associated with that occupation. The concept of the nominee ensures this is the case by embedding the requisite technical skills and knowledge in a contracting agency. In other words, the nominee ensures that there is a correlation between being authorised to contract for a given scope of regulated work, and possession (within the contracting agency) of the necessary qualification requirement. If the nominee provision is removed then the ability to ensure the contractor's compliance with a skills requirement is also removed.

Regulators have indicated that it is far more difficult to establish responsibility for breaches where a licence holder who performs the work has no ongoing link to the company who has contracted for the work as it can be difficult to locate and contact the licence holder in this situation, particularly in a large company situation. To remove the nominee requirement in the two jurisdictions that licence the occupation would have significant negative consequences on the capacity to hold contractor licensees responsible for their supervision of work and result in regulators having to rely on standard director obligations. Some jurisdictions consider that this requirement needs to remain part of the essential architecture of a robust licensing model.

Under national licensing, a body corporate or an individual may choose to have more than one nominee. A business requiring a nominee will be required to have a nominee at all times and will be required to notify the licensing authority if the business no longer has a nominee for that regulated work. In situations where the nominee dies, or resigns as the nominee or is no longer eligible to be the nominee, the licensee must notify the licensing authority in writing, as soon as practicable but not later than 14 days of the situation occurring. The licensing authority would have the discretion to authorise a licensed contractor to operate for a set period with an interim nominee under prescribed conditions. An interim nominee does not need to be one of the parties specified above.

There was substantial discussion between jurisdictions on whether the role of the nominee should be set out in legislation and the extent to which a nominee should be responsible for the supervision of other staff carrying out the licensed work to an appropriate standard. As there are significant differences between jurisdictions on the current role of nominees, it was agreed that the role should not be defined in the National Law, but will continue to be set under the separate state and territory legislation relating to the conduct of licensees and businesses. Nominees will not, therefore, be subject to additional probity requirements beyond those necessary for them to obtain a licence.

Consultation feedback

Of those who commented on nominees, most submissions supported the proposal for nominees. Those who did not support the nominee concept, including the CEPU, sought the expansion of those able to be nominees to sub-contractors and/or contractors as this reflects current work practices in their jurisdiction. These stakeholders stated that restricting the nominees to a director or employee would create an increased level of administrative burden that is unnecessary and would disadvantage small businesses. Others thought that contractors needed to have the skills and experience to understand the work for which they contracted and did not want 'unskilled persons' as contractors.

Conclusion

It is proposed to retain the approach to nominees as outlined above, and in the Consultation RIS, which builds on the requirement to have a nominee established in the national law, but to include the possibility for individual jurisdictions to choose to allow sub-contractors to fulfil the role of a nominee. In jurisdictions where this occurs, a contractor that has only a sub-contractor nominee, and not a nominee who is a director or employee, will be unable to contract for work outside of the jurisdiction in which their principal place of business is located. This approach would minimise additional regulatory burden in the few jurisdictions where nominees are not currently required, but it also facilitates a broader national approach acceptable to all jurisdictions. In all cases, a person must agree to hold the responsibility of nominee (as set out in the relevant jurisdictional conduct legislation).

3.3.5 Exemptions

An exemption provides for certain persons to not be required to hold a licence in specified circumstances. All jurisdictions provide for exemptions, but these may be provided for different purposes. It was considered that exemptions should only be considered when the benefit of allowing the work to be done by unlicensed persons outweighs the costs associated with consumer risk.

Under amendments proposed to the National Law, a *person* must not carry out regulated work unless licensed or exempt (as per paragraphs (a) and (b) below). In addition, a licensee must not engage another person to carry out regulated work unless they are licensed or exempt; noting that regulated work includes contracting for regulated work.

Two exemptions are proposed:

- a) an individual who is carrying out the regulated work under a contract of employment and training, or as a student undertaking competency-based training or assessment, for the purposes of gaining qualifications necessary for obtaining a licence and who is under the supervision of an individual who is licensed to carry out the regulated work unsupervised, for the provision of that regulated work with another person licensed to carry out that work; or
- b) a person who is the holder of a prescribed authority (by whatever name called) and who, as part of carrying on business under that authority, contracts for the provision of that regulated work other than under a contract of employment, with another person licensed to carry out that regulated work.

These are as proposed in the Consultation RIS; however, the original wording proposed for the second exemption used the term 'builder's licence' and was included to take into account situations where a refrigeration and air-conditioning licensee was working for a building contractor. When the legislation was drafted, however, this wording presented difficulties and was amended to avoid potential confusion and because it would necessarily pre-empt the national licensing work being undertaken on the building occupations.

This differs from the current approach, in which some jurisdictional licensing schemes exempt work related to self-contained single phase plug-in domestic refrigeration units from the regulated work or where work is under a particular threshold amount (e.g. under \$3,300 in Queensland). In these situations, it was considered that the level of risk associated with this work is minimal, while the cost of requiring a licensed person to be contracted to do the work may be significant.

Consultation feedback

Of those who responded on the proposed exemptions, a considerable number did not support any exemptions stating concerns over safety and the lowering of standards. These respondents included key stakeholders such as the CEPU, NECA, RACCA and Australian Refrigeration Council (ARC).

The CEPU Plumbing Division in particular, did not support an exemption for builders, stating that the requirement to hold any form of contractor licence relating to refrigeration and air-conditioning work was not appropriate and would have the potential to confuse consumers about the work to be contracted. The CEPU suggested that there is no reason why reduced 'administrative arrangements' (e.g. no additional fee) could not be put into place to enable builders to have easy access to contract licences from other occupations to cover such situations.

Generally those that did not support the proposed exemptions did so for several reasons including:

- it was not clear for consumers what the exemption would be
- this would lead to a breakdown in the refrigeration and air-conditioning trade
- it would mean that anyone could undertake refrigeration and air-conditioning work.

However no evidence or rationale was presented to support any change, it is therefore not recommended to change the exemption proposal outlined in the Consultation RIS.

3.3.6 Non-skills-based eligibility requirements

Personal probity

The personal probity requirements proposed for national licensing related to the criminal history of the person will apply to all contractor applicants and relevant persons. The proposal for personal probity is outlined above at 3.2.7. Personal probity checks will not be applied to an individual licensee who is not contracting for refrigeration and air-conditioning work of any kind, as there is no a direct connection to the requirements of the occupation. Personal probity checks can only be carried out to the extent there is a connection between the criminal history of the person and the inherent requirements of the occupation for which the person is an applicant.

This connectivity test was fundamental in the policy development process, which focused on ensuring that licence requirements were directly relevant to risks to public or consumer safety for the occupation and did not capture risks that were unrelated to the carrying out of the occupation.

In the case of refrigeration and air-conditioning work, the main risks identified were related to inadequate and unsafe work practices. Accordingly, it was considered that offences against the person, such as violence, did not have a direct connection to the inherent requirements of the occupation. Criminal history checks are not currently required in the majority of states for refrigeration and air-conditioning licence holders, and these states have not indicated any increased consumer safety impact.

It was acknowledged that there could be a case for applying personal probity criteria in relation to the carrying out of a business and that this should be applied to contractors and relevant persons for a body corporate. In this regard, the proposed offences related dishonesty, offences relating to misleading and deceptive conduct and offences relating to a person's obligations under a law relating to occupational health and safety.. A small number of personal probity checks have been listed for individuals as employees. Primarily, these have to do with ensuring that the applicant has not carried out, engaged others to carry out or advertised/offered to carry out work unless they are licensed or exempt. These are not new inclusions, as such, but were previously listed in section 21 of the national law under 'Excluded person'. All jurisdictions currently have prohibitions against persons for behaviour in relation to unlicensed work. As this check could be a question on the application form, supported by information on the national register, the cost is likely to be minimal for jurisdictions that do not currently ask this question at the time of application. New South Wales and Victoria currently have personal probity requirements for the equivalent of a registered tradesperson, with both asking questions on criminal history at the time of application. These checks will be removed under national licensing.

Some jurisdictions considered that additional safeguards are necessary and have supported prescribing additional matters relating to offences against the person that are not inherent in the requirements of the occupation. The rationale behind the proposal is that, in undertaking licensed work, licensees interact at some level with other persons, such as customers, employees, suppliers or other licensees. For example, refrigeration and air-conditioning licensees will have access to private property and homes to undertake installations, repairs and maintenance work. In some jurisdictions, existing licensing laws provide the regulator with discretion to exclude persons from the licensed occupation based on relevant criminal histories involving offences against the person.

It was acknowledged, however, that legal case history indicates that refusal to grant a licence on such grounds may be overturned on appeal in the courts, precisely because of the lack of direct connection between the offence and the carrying out of the occupation. There are social justice factors to be considered where a person is prevented from earning a livelihood due to past behaviour for which a penalty has been paid.

It is proposed that personal probity checks will not be applied to an individual licensee who is not contracting as there is no direct connection to the inherent requirements of the occupation.

Consultation feedback

Of the submissions that commented on the proposals for personal probity, most who responded to this issue supported the arrangements proposed, while others were largely silent on this issue. Very few respondents provided an explanation of their response; those that did indicated that the requirements were sufficient for a licensee to satisfy the objectives of the licensing system.

It is therefore not proposed to change the proposal outlined in the Consultation RIS. It is expected that the impacts of the personal probity requirements will be minimal, as they largely reflect current practices in the three jurisdictions that licence the refrigeration and air-conditioning occupation.

Relevant persons

It is proposed that relevant persons for the refrigeration and air-conditioning occupation for a body corporate, will be each director of the body corporate (as defined in the *Corporations Act 2001 (Cwlth)*), including any other individual who is in effective control of the business and ,for a member of a partnership, each member of the partnership. A person in effective control of the business is someone who is regularly or usually in charge of the business, or in a position to control or influence how the business is managed.

This proposal was supported by consultation feedback and therefore no change to the proposal is recommended

Proposed financial probity eligibility requirements

Financial probity arrangements aim to ascertain whether the financial integrity of the applicant is such that the risk to consumers of dealing with the licensed person is minimised. All jurisdictions require financial probity checks although these may differ in extent and coverage. The proposals for financial probity requirements are included above.

An approach to financial probity was recommended in the Consultation RIS whereby to be eligible for a licence under national licensing the applicant must meet requirements that relate to the failure to pay fines and an applicant for a contractor's licence must also meet insolvency history requirements. As with personal probity the regulator will have the authority to refuse the licence application if the set standards are not met. The only requirement on non-contractor licensees is the check on whether the person has failed to pay fines or penalties required to be paid under the national law or a prescribed law. This will not be an onerous requirement as the information will be readily available on licence registers and may be as simple as providing a declaration. The expert advisory groups both supported this requirement on the basis that acquittal (and enforcement) of outstanding fines and penalties goes to the heart of the disciplinary scheme which is based on some form of penalty in relation to breaches. There are also some counter-balancing instances of a reduction in financial probity requirements. As an example, New South Wales will remove the check for bankruptcy for full licensees and registered tradespersons.

Consultation feedback

There was strong support for the financial probity requirements as proposed in the Consultation RIS. Of the submissions that commented on the proposals for financial probity, over 61 per cent supported the arrangements proposed. Very few respondents provided an explanation of their response; of those that did, one respondent indicated that the requirements were already covered

by current jurisdictional requirements; another indicated that if licensees were compliant and truthful the probity requirements proposed addressed the issue of consumer risks.

It is not proposed to change the proposal outlined in the Consultation RIS. It is expected that the impacts of the financial probity requirements will be minimal, as they largely reflect current practices in the three jurisdictions that licence the refrigeration and air-conditioning occupation.

3.3.7 Qualification-based eligibility requirements

All jurisdictions require qualification-based eligibility criteria for obtaining an occupational licence although requirements may differ in relation to which qualifications, or units of competency are required and the licences to which they apply. The proposals for qualification-based requirements are included above at 3.2.8.

Australia's national vocational education and training system should provide the foundation for national licensing requirements. The system comprises various elements that work together to ensure the quality and integrity of training and assessment services of registered training organisations across Australia. Nationally agreed training packages are part of the VET Quality Framework, which includes the Australian Qualifications Framework and the Standards for Registered Training Organisations. The system enables individuals to have national recognition of the qualifications and statements of attainment achieved.

The objectives of the Intergovernmental Agreement and the National Law include facilitating a consistent skills base for licensed occupations by using national training packages and skill sets as the basis for the qualification-related eligibility requirements for licensed occupations in national licensing.

The National Law (section 3(b)) requires that 'licensing arrangements are effective and proportionate to ensure consumer protection and worker and public health and safety while ensuring economic efficiency and equity of access'. In other words, requirements for competence in particular aspects of refrigeration and air-conditioning work should relate strongly to the regulated work and reflect areas of identified risk to the public. Where possible, eligibility requirements should be set at qualification level, and the level of qualification should be commensurate with the skills required for the specific regulated work. Where competency requirements are not neatly encapsulated in a qualification or where licensing involves a subset of regulated work, specific units of competency may be identified as a skills set.

3.3.8 Qualifications requirements national licensing model A

Qualifications - contractors

Contractors contract to carry out regulated work in a particular occupation. They may, or may not, hold a technical licence that would enable them to undertake the work. Some jurisdictions, such as Queensland, South Australia and Western Australia, require individual contractors (that is a natural person) to have technical skills in some occupations for example, plumbing and gasfitting. The Consultation RIS proposed that there should be no additional business or technical competencies required for the contractor (business) level of licensing.

While the majority of the IAC agreed that there should be no technical requirements, there were divergent views on whether any additional business competencies should be required. Queensland currently requires individual contractors to have both technical skills and managerial qualifications and as such strongly advocated the inclusion of specified business units for a contractor licence but little evidence was provided to support any linkage between additional mandatory training requirements and consumer protection and business efficiency for the refrigeration and airconditioning occupation.

Consultation feedback

Most submissions did not respond to the issue of business skills for contractors. Of those who did, approximately half supported the proposal and half did not. Those that did not support the proposal included peak bodies such as NECA, RACCA, AMCA and the Master Builders Australia (MBA). Both NECA and RACCA believe that business qualifications for contractors are essential for the wellbeing of the contractor, the industry and the consumer as they assist in ensuring that proper financial management of the business is maintained, and that undertaking business competencies assists small business to remain viable and sustainable. These organisations suggest the completion of two business units of competence from the business services training package or a Certificate IV in Small Business Management (as currently undertaken in South Australia). This suggestion was also supported by the TAFE SA submission.

Of those supporting qualifications for contractors, a small number of respondents specifically sought the inclusion of technical skills as it was considered, from a safety perspective, that contractors should have the technical knowledge and expertise to know that the work undertaken has been completed properly. Another suggestion was that contractors should have knowledge of the standards and codes that apply to the industry as well as a fundamental understanding of the risk and safety issues specific to the trade.

Requiring technical skills of a contractor would, however, decrease the flexibility of business arrangements where an individual can manage a business but have a nominee or nominees with the requisite technical skills. If technical skills were required of a contractor, businesses operating as partnerships would be obliged to stop trading where the person with technical skills left or died, rather than being able to continue with a nominee. Such a requirement would also be inequitable as it could only be required of an individual contractor since a body corporate, in itself, could not possess skills. It is acknowledged that in some jurisdictions and occupations, for example Queensland for electrical occupations, a business person can continue with a new person as a nominee. In Queensland, the electrical occupations require that a corporation or a partnership have a business qualified person and a technically qualified person (often a husband and wife partnership). If the technically qualified person ceases to be a technically qualified person, the business can continue in a new partnership for example with a new technically qualified person. This could apply across other occupations.

A best practice approach to licensing requires that licence eligibility criteria should directly relate to the risks to be mitigated. The COAG National Licensing Steering Committee (the Steering Committee) did not support the proposal for a contractor to require business skills as no evidence was demonstrated of the particular need for these skills in this occupation. The Steering Committee noted that business skills are not required of other, non-licensed businesses and no evidence was presented to indicate that the benefit of including business skills for contractors outweighed the cost

in this case. To require business skills of refrigeration and air-conditioning contractors would therefore be inequitable.

It is therefore proposed that there be no qualification requirement for a contractor licence, either for business or technical skills. The impact of the removal of qualification requirement for contractors is estimated to be \$0.94 million per annum.

Qualifications - refrigeration and air-conditioning licence category

The Consultation RIS proposed that the completion of an apprenticeship leading to a Certificate III qualification provided the levels of competency required to operate unsupervised. It noted the importance of ensuring that training is properly delivered and noted the role of the Australian Skills Quality Authority in ensuring that this occurs. Two qualification pathways were proposed:

- UEE32211 Certificate III in Air-conditioning and Refrigeration
 OR
- MEM30205 Certificate III in Engineering Mechanical Trade including a number of specified units of competency.

Consultation feedback

Many of the submissions supported the proposed qualifications for this category. However key stakeholders including NECA, RACCA, the CEPU Electrical Division and AMCA, did not support the inclusion of the MEM30205 Certificate III in Engineering – Mechanical Trade qualifications primarily because they considered this qualification was too general in its content of the refrigeration and airconditioning field to ensure that a person holding it had the relevant competencies to work in this occupation. It was considered that the units within this qualification were written in broad general terms and did not specify the competencies requirements adequately. In particular NECA and RACCA were concerned that the specific units of competence identified did not deliver the competencies required to adequately perform the electrical fault finding and repair work.

Manufacturing Skills Australia has advised that the MEM training package has been recently amended to align it more closely with the proposed national licensing requirements for both the refrigeration and air-conditioning and electrical occupations. The amendments have received endorsement by the National Skills Standards Council. It is therefore recommended that the MEM qualification remain as a pathway for the refrigeration and air-conditioning licence category.

The Australian Manufacturing Workers Union (AMWU) suggested an amendment to some of the units of competency specified in the proposed MEM Certificate III in Engineering – Mechanical Trade. The AMWU believes that, in respect of the MEM05 training package qualification listed for the full licence, the following competencies should be removed as they are not generally required of a base trade refrigeration and air-conditioning worker with a Certificate III qualification:

- MEM18090B Maintain and repair industrial refrigeration systems and components.
- MEM18095A Maintain and repair cooling towers/evaporative condensers and associated equipment.

• MEM18096A Maintain, repair/replace and adjust refrigerant flow controls and associated equipment.

No other submission questioned the suitability of these units and it is therefore proposed these units remain.

Qualifications – restricted refrigeration and air-conditioning (heat pumps and split system installation) licence

The Consultation RIS proposed the following qualifications for the restricted heat pump and split system installation licence which closely reflects the requirements for the Commonwealth restricted split system refrigerant handling licence currently offered. Two qualification pathways were proposed:

MEM 20105 Certificate II in Engineering
 OR

• UEE20111 Certificate II in Split Air-conditioning and Heat Pump Systems

As outlined above, stakeholders presented strong arguments for not including this licence category. Therefore no further discussion of the qualifications for this category is included.

Qualifications - provisional licence

The only provisional licence that will apply under national licensing are those for overseas trained migrants who have been assessed against units of the relevant national training package and found to hold an appropriate level of competence to commence work in Australia, and have therefore obtained an OTSR.

The provisional licence qualification proposed is:

An OTSR assessed against

• UEE32211 Certificate III in Air-conditioning and Refrigeration

OR

An OTSR assessed against

• MEM30205 Certificate III in Engineering – Mechanical Trade including a number of specified units of competency.

Consultation feedback

Approximately 64 per cent of the electronic survey respondents supported the proposed provisional licence although no explanation was given. Two respondents commented that a provisional licence should be issued only for apprentices.

However, it is not proposed that apprentices and trainees be licensed in any fashion, because the work undertaken is under the supervision of an employer, who is accountable for the work.

As indicated previously, there were a number of 'form template' submissions, mainly from Victorian stakeholders, which suggested that the provisional licence be expanded to apprentices and other local applicants. These changes are not supported or proposed. No concerns were raised about the qualifications suggested for the provisional licences and therefore the existing proposal is proposed.

Qualifications - apprenticeships

All jurisdictions provide for apprenticeship training as the preferred and key pathway to trade registration. Many of those providing submissions and a number of people attending the national information sessions expressed considerable concern that the national licensing proposals intended to downgrade the role of apprenticeships in licensing training and to support institution-based only pathways. This is not the case. There is no intention of changing the primacy of the apprenticeship as the appropriate pathway to trade registration, combining, as it does, both formal training and onthe-job experience.

Consultation feedback

Many submissions, including the CEPU Plumbing Division, expressed considerable concern that the national licensing proposals intended to downgrade the role of apprenticeships in licensing training, and indicated that they did not support institution-based only pathways as they did not contain sufficient on the job training which provides relevant practical experience. There is no intention to change the current role of apprenticeships under national licensing, and they are considered as the primary pathway to obtaining a refrigeration and air-conditioning licence.

Experience requirements

Experience is the period of time a person has undertaken employment (usually paid employment) related to the scope of work authorised by an occupational licence. It is inherently an imprecise measure of skill as the work being undertaken may, or may not, be of sufficient range and quality and does not, by itself demonstrate a particular level of expertise that may be comparable across individuals. The Consultation RIS did not propose to include experience requirements for any category of licence (experience, in this RIS, relates to periods of additional time required following completion of an apprenticeship and/or licence).

Currently, in Victoria (licence and registration licensees) and Queensland (contractor licensees), it is a licence requirement that licence holders have a specified level of experience. It should be noted that an apprenticeship pathway is the primary pathway to obtaining a refrigeration and airconditioning licence. The IAC agreed that experience would not be required under national licensing arrangements, as COAG had agreed in 2006 that competency-based arrangements should be sufficient for qualification purposes and that a time-based arrangement provided a variable and uncertain measure of the achievement of skills.

Consultation feedback

Of those submissions commenting on experience, most supported the retention of experience and expressed concern over the removal of an apprenticeship as a pathway to obtaining a licence. The removal of experience requirements in the proposals outlined in the Consultation RIS did not relate

Based on the mapping exercise undertaken by the National Licensing Taskforce, identifying the differences between state and territory licensing requirements and those proposed under national licensing.

to 'hands-on' work performed by apprentices as part of their apprenticeships training, but to additional periods of 'time served' before particular licences could be obtained made. There was some confusion during the consultation process where it was thought the proposition was to remove apprenticeships and substitute institution-based learning. This is definitely not the case and this was reiterated during the consultation phase.

Conclusion

Given the previous decision of COAG on this matter and the lack of evidence that experience can be adequately measured through any process other than formal assessment of current competency, it is not proposed that experience will be required as an eligibility requirement for any of the trade occupations under national licensing.

Additional testing

Additional testing is carried out by regulators in one jurisdiction, Victoria, before an applicant with the relevant skills requirement can obtain a licence. It duplicates the assessment process carried out by registered training organisations and aims to assure regulators that applicants are adequately trained where assessments by registered training organisations are not deemed effective.

Additional testing of applicants who have already been found to be competent against the units in the relevant training package represents a duplication and is inconsistent with COAG's position that regulators will recognise the VET qualification or statement of attainment as meeting all of the skill-related eligibility requirements⁵ for gaining a licence in relevant regulated occupations.

No additional testing is proposed as the training system is aimed at competency-based outcomes and it was not considered the role of regulators to duplicate training quality mechanisms.

Consultation feedback

Almost 42 per cent of those who commented on the need for additional testing indicated that no additional testing should apply while nearly half of all responses were neutral on this matter. The majority of those supporting the retention of additional testing came from 'form template' submissions from Victorian stakeholders and from the CEPU Plumbing Division, also based in Victoria, where this requirement currently exists.

Conclusion

It is considered that regulator testing through a registered training organisation, following the completion of apprenticeship training, is a duplicative and unnecessary process given that the qualification requirements are competency based and provide on-the-job experience. Although respondents from Victoria indicated that a substantial number of those obtaining the relevant qualification subsequently failed a test given by a regulator, it is considered that this may represent a failure of the training system and that, if so, it is not the purpose of licensing to compensate for a shortfall in training. This would be a matter for jurisdictional training regulators and the Australian Skills Quality Authority. There is no evidence provided to support any change to the

Skills-related eligibility requirements include those related to competency standards, qualifications and/or industry experience requirements.

recommendation in the Consultation RIS and therefore it is proposed that additional testing requirements are not included under national licensing.

Skills maintenance (continuing professional development)

Skills maintenance is the requirement for licensees to undertake additional training each year beyond that required as part of the original eligibility and competency requirements for their licence. It is intended to ensure that existing licensees maintain skills currency, particularly where technology, standards or practices change. It is often based on a specified number of hours or points to be obtained each year. It can represent an unwarranted burden on licensees and business where the training provided is not required, but undertaken simply to meet the regulatory requirement or where systems arise to exploit the requirement. Mandatory skills maintenance was not proposed for inclusion for the refrigeration and air-conditioning occupation.

Instead, when there is a specific education/information issue which may warrant a response from NOLA, it will work with the state and territory regulators to understand the issue and possible responses. The response could include strategies such as information provision, development of guidelines or one-off training requirements. The most appropriate option would be worked through with jurisdictions. There is agreement that ongoing CPD programs, including for example requirements for a number of hours CPD per year, would not be considered as part of this mechanism. The response would be aimed at achieving the desired outcome (i.e. greater awareness of the issue) with the minimal level of burden. In cases of imminent public health and safety risk, there are also mechanisms to ensure urgent action can be taken.

Consultation feedback

While the Consultation RIS did not include a specific question on the skills maintenance proposal, a number of peak organisations, including AIRAH, the ARA and the Master Builders Association provided comment. These submissions all supported the need for compulsory skills maintenance, some of them citing the need for licensees to respond to changes in practice and legislation, updates to standards and codes and to keep up to date with major industry technological changes. Respondents indicated there are significant implications if licensees are allowed to 'de-skill' to such an extent that safety, performance and sustainability are compromised. No evidence was provided to support this, however.

Inclusion of mandatory non-specific skills maintenance requirements is a cost to licensees and it is proposed that this requirement is not incorporated in national licensing given the absence of rigorous evidence of the benefits or the need for it to be compulsory. A more effective approach may be for professional associations to encourage a culture of quality training and development for members, above that required to obtain a licence, which could provide the foundation for improved marketing to consumers.

The regulation of the wider behaviours and standards to be met by licensees ('conduct requirements') following the attainment of a licence is not within the scope of this reform. Licensees will be responsible for ensuring that they are aware of any relevant changes to jurisdictional legislations or requirements.

3.3.9 Licence period

This Decision RIS proposes a one, three or five year licence period, offering flexible arrangements for licensees.

Currently licence periods range from one to three years in those jurisdictions that licence the refrigeration and air-conditioning occupation.

The periods for which a licence is offered can impact costs, as longer licence periods require fewer applications and less regulatory effort than shorter ones. However, to introduce a longer licence period of over five years can come with risks to consumers that include renewal probity checks not occurring within reasonable timeframes and the licence register containing out-dated licensee data.

While the most benefit could be obtained, theoretically, by increasing the licence term to an even longer period, or by making a licence permanently valid, in practice a regular renewal period has a number of benefits, although they are not easily quantifiable. These include ensuring the contact details for each licensee are kept up to date, which is essential for compliance practices, providing the regulator with the opportunity to remove records for those no longer practising, so that number of skilled practitioners can be monitored and allowing for periodic checks on the currency of requirements such as personal and/or financial probity. It provides a set point at which licensees can be provided with information on changed requirements or standards, which may necessitate professional development or other activity and it provides a revenue stream to reimburse regulator activity. It should be acknowledged that the proposal to offer flexible licence periods of one, three or five years will provide a slight increase in complexity for regulators however this will be offset to some degree by the increased flexibility afforded to licensees in being able to choose the licence term.

The flexibility in licence terms will provide licensees the option to choose the period which maximises the benefit in their individual circumstances. The net quantifiable benefit of the 5 year period is \$1.19 million (annualised ongoing impact). Although a 10 year licence period and a perpetual licence have benefits of \$1.42 million and \$1.65 million (annualised ongoing impact) respectively, the non-quantifiable benefits associated with a more regular renewal period mean that, on balance, a choice of 1, 3, or 5 years is the preferred longer licence period option. This is discussed further in Chapter 4.

Consultation feedback

Subsequent evaluation of comments on the licence period has indicated that a flexible approach would be supported by licensees.

Almost half of the total submissions providing comment on the licence period for contractors supported a three year period for both contractors and non-contractors, as currently occurs in those jurisdictions that licence the refrigeration and air-conditioning occupation. Less than a third supported the three year period for contractors and the five year period for non-contractors, respectively. Relatively small numbers of respondents supported the one year term for either category.

Longer term licence periods were not supported, particularly by regulators, as more frequent renewals provide the opportunity for regulators to review contact details and the currency of

personal and/or financial probity, monitor numbers of practitioners and provide information on changed requirements or standards.

Conclusion

The benefit attributable to licence terms is for the perpetual licence which is \$43.56 million (NPV) for Model A and \$51.04 million (NPV) for Model B.

However a licence length of 1, 3 and 5 years is more appropriate because it allows flexibility and balances off the lower benefits attributable to these licence terms. Under this scenario the maximum potential benefit would be \$33.85 million (NPV) for five years for Model A and \$45.15 million (NPV) for five years for Model B.

Given the range of views, and a desire to put in place arrangements with maximum flexibility for licence holders, it is proposed to provide a choice of one, three or five year licence periods. A discussion of the impact of this change is provided in chapter 4

3.4 Transitional arrangements

3.4.1 Deeming of current licence holders

The Intergovernmental Agreement provides for deeming arrangements for current licence holders to transition to the national licensing scheme. Any licensee who is deemed into the scheme is considered to fulfil the skills-based requirements needed for continuing eligibility while they continue to hold that licence. Current jurisdictional licensees will be transitioned into the national licensing system based on the following deeming principles:

- No disadvantage all current licence holders will be able to do tomorrow, under national
 licensing, what they are able to do today. The deeming process will authorise a licensee to
 do a similar scope of work under national licensing to that authorised under their current
 jurisdictional licence.
- Current licensees will not be required to undertake any additional training or testing to be eligible for the relevant national licence category.
- A jurisdiction will not be required to adopt a national licence category that is not currently licensed by that jurisdiction when national licensing commences, in accordance with clause 4.2(f) of the Intergovernmental Agreement.
- Some work currently requiring a licence will not be regulated work under national licensing and a licence will no longer be required for that work.
- Adoption of a 'best fit' approach some licences will not have a direct equivalent and a current category may map to more than one category or a category plus an endorsement. Alternatively, some categories may have a scope of work that is significantly less than that proposed for a national licence and conditions or restrictions may be applied to achieve a best fit. It is necessary to apply restrictions and conditions to ensure licensees are not transitioned to licences that would allow them to undertake a wider scope of work than their current licences allow, as this could pose an unacceptable safety risk to themselves and the community.

Each jurisdiction has undertaken a process to map straightforward, like-to-like equivalences of jurisdictional licences to the relevant national licence category or categories. This mapping, which covers some 80 per cent of current jurisdictional licences, will be incorporated into the jurisdictional transitional legislation.

The exception to this is for those licensees that have conditions or directions applied as a result of disciplinary action; in these cases, the licence will be transitioned 'as is'.

Following is information on the deeming of jurisdictional licences under specific circumstances.

3.4.2 Administrative transactions that were initiated before national licensing begins

All applications for the issue, renewal or restoration of a licence lodged before the national licensing commencement date will continue to be assessed under the relevant jurisdictional licensing legislation in place immediately prior to the commencement of national licensing. The licence will then be transitioned to national licensing as outlined.

3.4.3 Disciplinary and court processes and actions that were initiated before national licensing begins

All applications lodged in relation to disciplinary and court processes and actions, including internal reviews, before the national licensing commencement date will continue to be assessed under the relevant jurisdictional licensing legislation in place immediately prior to the commencement of national licensing. The decision will take effect as though it was made under the National Law. If a decision is made under the old law for the disciplinary action and an appeal within the given appeal period has not been made at the time when national licensing commences, the right to appeal will continue under the old law.

3.4.4 Transitioning suspended licensees

All licensees suspended under relevant jurisdictional licensing legislation will continue to remain suspended under national licensing until the suspension expires (that is they will be transitioned to a suspended licence) and during the period of suspension will not be able to operate in any jurisdiction.

3.4.5 Transitioning disqualified licensees and cancelled licences

A person who currently has a cancelled licence, as a result of a disciplinary action, for a specific occupation and licence type in any jurisdiction but a valid licence in another jurisdiction, for the same category of licence, would not be transitioned to a national licensing system licence if the period of the cancellation has not expired or the cancellation decision was made in the last two years. The valid licence, held for the same category of licence, in the secondary jurisdiction would also be considered disqualified or cancelled and the person would not be able to operate in any jurisdiction. Under the new law this person would be treated as an excluded person nationally until the cancellation or disqualification period has expired. It is recognised that this may be taking away a person's right to work; however, this is a fundamental part of the design of the system which is aimed at protecting the public safety and the consumer.

3.4.6 Eligibility for those who initiated training before national licensing begins

An applicant who initiated a qualification or course that was required immediately before the commencement of the National Law will be deemed to have met the skills-based eligibility requirement for a national licence, if immediately before the commencement date, the applicant was enrolled in the course or program for the issue of an equivalent jurisdictional licence.

3.4.7 Eligibility for those who completed training before national licensing begins

An applicant who completes a qualification or course that was required in a jurisdiction immediately before the commencement of the National Law for a jurisdictional licence will be deemed to have met the qualification-based eligibility requirement for a national licence for the period of three years from commencement of national licensing for that occupation.

A person holding a qualification not recognised under national licensing should seek advice from the licensing regulator in that jurisdiction about the possibility of obtaining a national licence. A person moving to a jurisdiction where a national licence will be required to undertake the type of work they do, and who does not hold a qualification, will need to contact the licensing authority for details on how to apply for the licence. Options will include seeking recognition of prior learning from a registered training organisation. The interim advisory committee proposed that a national skill and knowledge currency test should be developed and applied in these circumstances.

3.4.8 Lapsed licences

A licence that has lapsed within the restoration period provided in current jurisdictional legislation preceding the commencement of the national licensing system will be restored upon application under the old law and deemed to an equivalent licence under the National Law.

3.4.9 Current trainees for a restricted licence

A person in training for a restricted licence, as currently offered in Victoria, that would have been granted under current jurisdictional legislation, but that will not exist under the national licensing system, will be eligible to apply for a licence with limitations on the scope of work that make it equivalent to the former jurisdictional restricted licence for a period of up to 12 months following completion of their training.

Consultation feedback

Over 60 per cent of submissions which contained responses to the questions on the transitional arrangements indicated support for the proposals. No concerns were raised on the proposal and it is proposed that the above provisions be incorporated.

4 Impact analysis

This chapter provides supporting detail about the costs and benefits of the options being considered in this Decision RIS. It provides a detailed discussion of the impacts and results of the analysis, including sensitivity results and a summary of the costs and benefits by jurisdiction.

4.1 Transition and implementation costs of a national licensing system

Before the commencement of the proposed national licensing reform and across the first three years of the system's operation, several one-off costs would be incurred. For licensees, business and households, there is a time cost associated with understanding the new system of licensing. For governments, there are costs associated with setting up the National Occupational Licensing Authority (NOLA), implementing the national licensing register and communicating the changes to licensees and the wider community (i.e. businesses and consumers).

4.1.1 Cost to refrigeration and air-conditioning licensees

Time for licensees to understand the proposed reforms

Under national licensing, licensees would need to understand the changes and how they are affected by them. Time costs would be incurred either by reading material, attending an information seminar or through some other means.

A majority of those providing feedback on the proposal that 45 minutes might be sufficient to understand the impacts of the change, indicated that more time would be needed for this purpose. The period has now been doubled and it is now assumed that it would take each existing licensee 90 minutes to understand the changes. Based on the understanding that there are about 12,700 refrigeration and air-conditioning licensees across the jurisdictions, the estimated transition costs to industry would be about \$0.86 million. It is expected that this would be incurred throughout the year preceding the operation of national licensing (i.e. 2012–13). As at 1 July 2012, the 10-year net present value (NPV) of this cost is \$0.80 million. The distribution of these costs across jurisdictions is shown in Table 4.1.

Table 4.1: Cost to licensees from spending time understanding the proposed reforms

\$ million	NSW	Vic	Qld	National
Transition cost (undiscounted)	0.48	0.22	0.16	0.86
10-year NPV as at 1 July 2012	0.44	0.20	0.168	0.80

The estimate of 90 minutes takes into consideration the varying needs of licence holders when they transition to a national licence. Licence holders would not be required to change their licence before the expiration of their current licence. Therefore, the 90-minute estimate reflects the potential additional time *over and above* the normal requirements for licence renewal. For some licence holders, changes may be more complex and require more time; for others, changes would be minimal and require less. The estimate in this Decision RIS is intended to be a reasonable average of likely transition requirements, and will be tested further with industry in consultations.

For further information on the assumptions underlying these estimates, see Attachment F.

4.1.2 Cost to business and consumers

Business value-add lost

Given that licensees must spend additional time to transition to national licensing, they will essentially be less efficient as a result. There is an expectation that if the reforms lead to a one-off efficiency loss for refrigeration and air-conditioning services, business too will experience a one-off reduction in their profits, or their value-add from refrigeration and air-conditioning services, as less will be generated from a less efficient labour force.

For the purpose of this Decision RIS, the costs to the business and household buying refrigeration and air-conditioning services are assumed to be one-third of the direct costs to labour. This estimate is based on research conducted by the Australian Bureau of Statistics on income shares for factors of production (labour and capital), which estimates the profit share of total factor income (essentially the return to capital of total income in the economy). This measure is the best available indicator of the extent to which income is returned to capital (as opposed to being returned to labour in the form of wages).

It is estimated that there would be a transition cost to business (and households) of \$0.29 million in terms of business value-add lost, or \$0.27 million NPV over ten years as at 1 July 2012. The distribution of these costs across jurisdictions is shown in Table 4.2.

Table 4.2: Business value-add lost as a result of transition costs

\$ million	NSW	Vic	Qld	National
Transition cost (undiscounted)	0.16	0.07	0.06	0.29
10-year NPV as at 1 July 2012	0.15	0.07	0.05	0.27

4.1.3 Costs to government

National Occupational Licensing Authority – set-up costs

A key element of the national licensing model is the establishment of a National Occupational Licensing Authority. The role of the licensing authority would be to develop consistent national policy for obtaining a licence and to administer the national system. In doing this, it must consult with stakeholders in relevant occupational areas and establish occupational licence advisory committees. During the implementation phase, the licensing authority would regularly consult with a jurisdictional reference group on issues that arise regarding the implementation of the national system and on progress with the development of licence policy.

⁶ Australian Bureau of Statistics 2011, Australian System of National Accounts 2010–11, cat. no. 5204.0, ABS, Canberra.

In its first five years of operation, the licensing authority would have an important role in the following areas:

- supporting the implementation of national licensing for the first-wave occupations (electrical, plumbing and gasfitting, property, and refrigeration and air-conditioning mechanics)
- supporting the implementation of second-wave occupations, including building occupations
- supporting further reforms related to occupational licensing.

Based on the above scope, it is clear that only a proportion of licensing authority resources would be required to support the implementation and future policy direction of national licensing for the refrigeration and air-conditioning occupation. Costs for this Decision RIS therefore reflect this fact, and attribute a proportion of licensing authority costs.

The costs to governments of establishing the licensing authority will be apportioned to each occupation under national licensing (including the first and second tranche of occupations and any future harmonisation of conduct requirements). It is assumed that the first tranche of occupations (plumbing and gasfitters, property, electrical and refrigeration and air-conditioning) will be apportioned 50 per cent of these costs. The remaining 50 per cent will be apportioned to the second tranche of occupations with 30 per cent to building occupations, valuers and conveyancers and 20 per cent to proposed future harmonisation of conduct requirements. Further information is provided in Attachment F.

For the refrigeration and air-conditioning occupation, national licensing costs have been estimated according to the following assumptions:

- Fifty per cent of national licensing costs have been attributed to future reforms, including second-wave occupations and potential harmonisation to conduct reforms (yet to be agreed)
- the remaining 50 per cent of costs are attributed to first-wave occupations, with 2 per cent of these costs allocated to the refrigeration and air-conditioning occupation.

For more detail on these assumptions, see Attachment F.

The transition and operating costs of the licensing authority have been budgeted for 2011–12 to 2014–15, and notional funding contributions from each jurisdiction have been agreed but commitments have not been made beyond 30 June 2013. The costs of the licensing authority attributable to the refrigeration and air-conditioning occupation, according to these agreed contributions by governments(noting these figures are subject to change on the agreement of SCFFR), should only be allocated to jurisdictions that licence refrigeration and air-conditioning. Therefore, the costs of the licensing authority have been allocated across jurisdictions according to their relative number of licensees. Table 4.3 illustrates this distribution.

Table 4.3: National Occupational Licensing Authority - indicative jurisdictional allocation

Contribution of budget estimate	NSW	Vic	Qld
Government	55%	28%	17%

The detailed budget of the licensing authority provided by the COAG National Licensing Taskforce shows that transition costs over and above the ongoing cost of operating the licensing authority will be incurred in the first three years. This includes the one-off establishment cost of the licensing authority, the implementation costs associated with the national licensing register and higher meeting costs during the transition period.

Based on these figures, it is estimated that the transition costs associated with the licensing authority are about \$0.10 million. This cost would be incurred across three years, leading to a transition cost of about \$0.09 million NPV over ten years (as at 1 July 2012). The distribution of costs across jurisdictions is shown in Table 4.4^7 .

Table 4.4: Transition costs associated with the National Occupational Licensing Authority

\$ million	NSW	Vic	Qld	National
Transition cost (undiscounted)	0.05	0.03	0.02	0.10
10-year NPV as at 1 July 2012	0.05	0.03	0.02	0.09

For further information on the assumptions underlying this estimate, see Attachment F.

Costs to transition to a national licensing register (jurisdictional implementation)

Under national licensing, a public national licensing register would be established, providing a cross-jurisdictional summary of all the licences issued under national licensing. This would enable the public and jurisdictional regulators to electronically search for licensed entities and the individuals associated with national licences. The register would be the responsibility of the licensing authority, with all jurisdictional regulators providing information to the licensing authority's central database.

Initially, the register would include all first-wave occupational areas (electrical, plumbing and gasfitting, property, and refrigeration and air-conditioning) in each jurisdiction; it is intended that all subsequent occupations would also be included. It is therefore assumed that this initial investment in the register for the four occupational areas would have subsequent value for any other occupations that transition to national licensing in the future.

The intention of including the register within a national licensing framework is to provide greater transparency, allowing consumers to make an informed choice when engaging licensees. It may also improve both consumer awareness of licensing and consumer confidence in the licensing system.

The estimates of total register costs for jurisdictions are those costs that are incurred to upgrade current systems at the jurisdictional level to allow IT systems to interface with the national licensing register. As implementation of the system has not yet commenced, there is currently little available data on the full cost of this implementation. For this Decision RIS, a range of cost estimates have been used and will be tested further during the consultation phase.

These costs are estimated to be \$2 million for New South Wales (due to the new system being based on the NSW Government Licensing Service) and \$5 million for Victoria and Queensland. Given that the register will be used for several occupations, 50 per cent of this implementation cost has been

NOLA costs are based on estimates agreed by SCFFR in April 2012. Further work is underway on establishing a budget for NOLA in the longer term.

attributed to future reforms, including second-wave occupations and potential harmonisation of conduct reforms (yet to be agreed). Of the remaining 50 per cent, 2 per cent is attributable to the refrigeration and air-conditioning occupation.

The cost for jurisdictions implementing the national licensing register is \$0.12 million in transition costs or \$0.11 million NPV over ten years as at 1 July 2012. The distribution of costs across jurisdictions is shown in Table 4.5.

Table 4.5: National licensing register transition costs

\$ million	NSW	Vic	Qld	Total ^a
Total costs to government of transitioning to the national licensing register (time and upgrade costs – undiscounted)	2	5	5	29
Total costs attributable to the refrigeration and air-conditioning occupation under the first stage of reforms (undiscounted transition cost)	0.02	0.05	0.05	0.12
10-year NPV of cost attributable to refrigeration and air-conditioning as at 1 July 2012	0.02	0.05	0.05	0.11

^a May not sum due to rounding.

For further information on the assumptions underlying these estimates, see Attachment F.

Government communications

Regulators in each state and territory are expected to develop and implement a communications strategy that seeks to inform various stakeholders of the changes to the licensing of the refrigeration and air-conditioning occupation. Relevant stakeholders include licence holders, industry associations, training providers, other government agencies with relevant responsibilities and consumer groups. Most regulators would already be conducting regular consultation with these groups as part of their current responsibilities; however, it is reasonable to expect that this reform would require an increased level of engagement and communications with stakeholders prior to the commencement of the new licensing arrangements.

The cost of this engagement would vary considerably across states and territories, depending on the type of engagement conducted and the medium used. There are currently no estimates available from each of the state and territory regulators on what it may cost to complete these activities. One state regulator does however, have estimates of the communications costs that were incurred when changes were made to the property industry in its state. This estimate of about \$325,000 has been used as the basis for estimating this cost to regulators. The number of refrigeration and airconditioning licensees is significantly lower than the number of property licensees. For example, in Victoria there are over 50,000 property licensees but only 3,500 refrigeration and airconditioning licensees. Given that some communications costs are proportional to the number of licensees, only half of this cost has been applied to the relevant three states.

Based on these estimates, the communications cost to government is \$0.49 million in transition or \$0.46 million NPV over ten years as at 1 July 2012. The distribution of costs across jurisdictions is shown in Table 4.6 below.

Table 4.6: Government communications costs during the transition to national licensing

\$ million	NSW	Vic	Qld	National
Transition cost (undiscounted)	0.16	0.16	0.16	0.49
10-year NPV as at 1 July 2012	0.15	0.15	0.15	0.46

For further information on the assumptions underlying these estimates, see Attachment F.

4.1.4 Direct costs and benefits of national licensing

The costs and benefits in this section are the ongoing impacts that would be incurred each year throughout the operation of national licensing, beginning in the first year of operation, assumed for the purposes of this analysis to be 2013–14. A 10-year NPV is presented in this analysis; however, these impacts are ongoing and could theoretically be considered over a longer time horizon as they will be enjoyed for many years.

While the transition costs outlined in 4.1.1 are quite discrete, many of the ongoing impacts affect several different sectors of the economy (that is, licensees, business and consumers and government). For that reason, this section is presented by type of impact rather than by sector.

Labour mobility

Labour mobility is defined as the extent to which labour is free to move around the economy in response to opportunities in the marketplace. This movement may be the relocation of labour from one region to another, or it may be the extent to which labour is accessible for short term, or on an itinerant basis, as required by firms across the economy (for instance, on short-term contracts, or on a 'fly-in, fly-out' basis, which do not require a permanent relocation). In addition, labour mobility should also be considered in the context of movement of workers across state and territory border towns or regions.

In the long term, people will move to where there are economic opportunities. How quickly this occurs is uncertain as there is a complex set of factors which can influence the mobility of labour in an economy. Even when there are employment opportunities for workers across the economy, the extent to which these will be filled in the short term is influenced by:

- the accessibility of information on work opportunities across regions
- the costs associated with moving to a new job, or of working remotely, away from home for particular periods
- the availability of infrastructure in a region, including housing, schools, child care, transport, etc. (which is particularly important for workers looking to relocate to a region)
- regulatory settings that may impede the mobility of labour, either directly by prohibiting movement or indirectly by imposing cost barriers that are sufficiently high to deter movement by individuals and businesses.

In making employment decisions, each individual will have a threshold cost of taking up a new employment opportunity (be it relocation or a short-term 'fly-in, fly-out' opportunity). This move need not be a permanent move and could involve temporary relocation to take advantage of a

market opportunity. For short relocations or temporary moves, fixed costs such as licensing become all the more relevant. This is the cost above which the move will not be cost-effective and will not proceed. This threshold will be related to the potential future benefit for employment in a new jurisdiction (with benefits including both financial and lifestyle factors). It is reasonable to assume that this threshold cost will vary for individuals. Therefore, as costs are lowered, a greater proportion of individuals in an industry would consider moving to a new jurisdiction for employment (an additional factor in this equation is the relative wages across jurisdictions) or taking up opportunities where they arise in other jurisdictions. On this basis, there are potential benefits in seeking to drive down costs from current levels.

Understanding the linkages between labour mobility and costs suggests that reducing costs has the potential to increase this proportion. There are likely flow-on benefits of higher labour mobility across the economy, in the form of economic efficiency improvements occurring through workers finding jobs, businesses finding workers, and consumers getting quicker services.

Quantifying the potential impact of labour mobility

The benefit from improved labour mobility is difficult to quantify. To provide an indication of the potential benefit, this RIS draws on the work undertaken in this area by the Productivity Commission. In their 2009 review, they found that in the face of a terms of trade change, that moving from no mobility of labour (that is, licensees are prohibited from moving interstate) to full labour mobility with no restrictions could lead to a 0.3 per cent increase in real GDP. Based on real GDP in 2011, this would represent about \$4 billion per annum. While the work undertaken by the Productivity Commission is not specific to the impacts of national licensing, it does provide one possible scenario to indicate the potential impacts from an increase in the mobility of labour.

The benefit estimated by the Productivity Commission would not be the same under national licensing because mutual recognition already allows for mobility between jurisdictions. There are also a number of other factors which influence a decision to move locations for work, including personal and family circumstances, permanent or temporary relocation costs and differences in conduct requirements between jurisdictions that will remain in place even after national licensing is implemented. Given these factors and the current mutual recognition arrangements, it is assumed that national licensing would only result in a small proportion of the full labour mobility benefit estimated by the Productivity Commission. For the purposes of this analysis, this proportion is assumed to be 10 per cent. This proportion represents only one possible scenario. Different assumptions around the proportion that could result from national licensing are explored in the sensitivity analysis (at the end of this chapter).

The share of labour mobility benefits would also differ between occupation groups. In the Productivity Commission's report, they note that the labour mobility effect is not uniform across industries. Industries that received a greater than proportionate increase included finance and insurance, property and business services, and electricity, gas and water services. While these occupation groups could be given a higher weighting, no specific detail is available about the specific distribution that would be appropriate for attributing the labour mobility benefit across occupations. In the absence of any other information, licence numbers have been used as a proxy to estimate the proportion of the benefit attributable to each occupation. Based on the number of refrigeration and air-conditioning licensees (as a proportion of registered workers), in this analysis about 0.1 per cent of the benefit is assumed to be attributable to refrigeration and air-conditioning occupations.

The benefit estimated by the Productivity Commission would only be realised if there was the same terms-of-trade shock to the economy assumed by the Productivity Commission. Given current economic circumstances, some have argued that it is unclear whether this form of shock is likely to eventuate in the near future because the relative price propagation mechanism that was relevant in 2009 may not be as important for Australia in the future. Commodity prices have now eased from their recent peaks and increasing production volumes may be more significant for drawing skilled tradespersons to the resources sector. While change in any economy is reasonably expected, predicting that change, its cause and impact, is often hard (e.g. there were few predictions for the global financial crisis in 2007/08). At the same time though, a *flexible* labour market is far better placed to adjust to any such change when it occurs. This estimate of labour mobility is designed to highlight the potential gains from extending flexibility even if it is difficult to predict what the flexibility is responding to.

The labour mobility benefit from national licensing may also be greater for temporary movements of skilled labour (e.g. for short-term fly-in, fly-out workers) due to the greater impact of fixed licensing costs (as discussed above). This would include the opportunities that arise to assist in the response to regional emergency situations. If short-term movements are what is critical for these reforms, the terms of trade induced shock used in the Productivity Commission's analysis may less accurately reflect the impact under national licensing.

It is important to recognise that the estimated benefit from labour mobility shown in this impact analysis is only one possible scenario. Given that the benefits from labour mobility are expected to be positive, the work undertaken by the productivity Commission has been used as a proxy for the impact under national licensing to demonstrate the potential benefit that may result.

Revised national labour mobility analysis

The Consultation RIS provided an assessment of the benefits caused by increased labour mobility that may be gained from the harmonisation of licences that are being targeted as a part of national licensing. These costings were undertaken by PwC and used results from a methodology developed by the Productivity Commission in its 2009 report regarding mutual recognition (as outlined in the section above).

Following the release of the CRIS, Treasury, the Productivity Commission, the Office of Best Practice Regulation, and PwC reviewed the calculation methodology to ensure it was consistent with methodologies used in the past by the Productivity Commission. In these discussions, it was agreed that the calculations should involve pro-rating the labour mobility benefit for each occupation on the basis of registered employment, rather than total employment as was done in the Consultation RIS.

The change relates to the assumption used to work out the proportion of the labour mobility benefit that can be attributed to reforms of a specific occupation. In the Consultation RIS, the proportion was calculated by taking the number of licence holders and dividing by the total number of workers in the economy. In light of further information from the Productivity Commission, this proportion has now been calculated using total registered workers instead of the total number of workers in the economy. This results in an increase in the benefit of labour mobility as outlined in the Table 4.7 below. This change is included in this Decision RIS.

Table 4.7: Benefits from improved labour mobility under national licensing

\$ million	NSW	Vic	Qld	National
Annualised ongoing benefit	1.36	0.68	0.42	2.46
10-year NPV as at 1 July 2012	8.93	4.45	2.77	16.15

For full details on all of the assumptions used to estimate the labour mobility benefit, see Attachment F.

A sensitivity analysis of the labour mobility impacts has been provided later in this chapter (See section 4.1.4). The benefits from labour mobility represent a significant share of the total benefits attributed to national licensing. Given the exact impact of labour mobility is also uncertain (as it is only one possible scenario), it is appropriate to conduct sensitivity analysis of this impact.

Removal of multiple licences held across jurisdictions

Under current licence requirements, licence holders must apply for a new licence if they wish to work in another state or territory that licenses refrigeration and air-conditioning work. Initially, this involves both a time cost and the payment of licence fees. Under mutual recognition, a licence issued in one jurisdiction can be equivalent to a number of licences in another jurisdiction, with associated additional licence costs for the applicant. Subsequently, that person would need to renew their licence(s) in the jurisdiction(s) in which they were held, again involving time and fees. This is the case even when mutual recognition of a licence is granted (i.e. when a regulator determines that the applicant has an equivalent licence). These costs would apply regardless of how effectively mutual recognition is operating.

A key benefit of national licensing would be the removal of the requirement for licence holders to hold more than one licence to work in multiple jurisdictions. It would also remove the need to apply for a new licence when they relocated, as long as that licence holder held a valid national licence.

In order to estimate this benefit for licensees, data provided by jurisdictional regulators has been used to estimate the proportion of licence holders in each jurisdiction who also hold a licence in other jurisdictions. Table 4.8 shows this data, which includes those licence holders who are transitioning from one jurisdiction to another (and who may hold onto a second licence until it expires) as well as those who hold multiple licences over a long term (for instance, if they work or live in a border region).

Table 4.8: Proportion of licence holders in each jurisdiction who also hold a licence in another jurisdiction

Percentage	NSW	Vic	Qld
% of existing licence holders	3.87%	1.44%	4.45%

Note: The figures in this table represent the percentage of licensees who operate and are licensed in that jurisdiction, but reside in another jurisdiction.

The reduction in costs associated with holding multiple licences can therefore be estimated by taking the total number of licence holders incurring the cost and estimating the avoided costs for these licence holders. This has been done using:

- the number of licence holders who would be affected by the changes, which is estimated using the proportion of licence holders estimated as being required to hold more than one licence under current arrangements (as shown in Table 4.8)
- data on refrigeration and air-conditioning licence fees in each jurisdiction and an estimate of the time to apply for a licence (which would be avoided costs).

It is important to note the potential for mutual recognition applications to be more onerous (in terms of time and documentation required) than standard applications. To reflect this, the average time to apply for a licence is assumed to be higher under mutual recognition. See Attachment F for more detail on the approach to calculating this impact, and the underlying assumptions.

Using this approach, it is estimated that the total cost of holding multiple licences is about \$0.08 million per annum or \$0.53 million NPV over ten years as at 1 July 2012. These costs would not be incurred under a national licensing approach, and therefore they are a key benefit of the national licensing option (as licence holders would no longer incur these costs). The distribution of this benefit across jurisdictions is shown in Table 4.9. Note that the benefits in this table have been attributed to the home state of licensees. For example, the benefit to New South Wales is the benefit to licensees who predominantly live in New South Wales but also hold licences in Victoria and/or Queensland. This attribution has been calculated based on migration flows. For further information on the assumptions underlying these estimates, see Attachment F.

Table 4.9: Benefit to licensees of no longer holding multiple licences across jurisdictions

\$ million	NSW	Vic	Qld	National
Annualised ongoing benefit	0.03	0.02	0.02	0.08
10-year NPV as at 1 July 2012	0.23	0.15	0.15	0.53

There is no impact for licensees who work in New South Wales, Victoria or Queensland, but live in a state or territory that does not license refrigeration and air-conditioning work. For example, currently if someone lives in South Australia (where the refrigeration and air-conditioning occupation is not currently licensed) but works in Victoria, they must apply for a licence in Victoria to undertake refrigeration and air-conditioning work in that jurisdiction. Under national licensing, that person would still have to apply for a licence, but it would be a national licence. Licensees who work in more than one state that license refrigeration and air-conditioning work and don't live in any of these states will benefit from only having to apply for one national licence that enables them to work in any jurisdiction. The proportion of licensees to which this scenario would apply is unknown and for that reason this has not been accounted for in this analysis.

The impact on government

While removing the need to hold multiple licences delivers a direct benefit for licence holders, it represents a cost to government (through reduced revenue where there are fewer licences issued). Regulators would also be expected to realise some savings from a reduction in the number of licences issued, as they would no longer need to spend time processing those licences. However, it is noted that jurisdictional regulators will still incur the costs associated with compliance activities for licence holders who continue to work in their jurisdictions, but who are based (and pay their licence

fee) in another jurisdiction. Therefore, this would lead to a net cost for government, as the loss in revenue would be greater than the savings realised.

This cost is estimated to be about \$0.07 million per annum (annualised across ten years) or \$0.46 million NPV over ten years as at 1 July 2012. The distribution of this cost across jurisdictions is shown in Table 4.10.

Table 4.10: Impact on government from the removal of multiple licences across jurisdictions

\$ million	NSW	Vic	Qld	National
Annualised ongoing cost	0.04	0.006	0.03	0.07
10-year NPV as at 1 July 2012	0.24	0.04	0.19	0.46

Flexible licence periods

Under current jurisdictional licensing arrangements, each state and territory has different licence periods, ranging from one year to three years. The current licence periods for each jurisdiction are shown in Table 4.11. The Consultation RIS proposed moving to a standard three year period and provided costing on that basis, however consultation feedback supported a more flexible range of licence periods. The proposal in this document therefore provides for licensees, a choice of one, three or five year terms for each national licence.

Table 4.11: Current licence periods across each jurisdiction

Jurisdiction	Contractors	Workers
NSW	3 (with the option of 1 year)	
Vic	1	3
Qld	1	N/A ^a

N/A = not applicable

In general terms, both licensees and jurisdictions benefit from a longer licence period, as licensees save time in applying less frequently and jurisdictions do not have to process the applications. . However there are a range of reasons why shorter licence periods may be more useful for regulators and government more broadly, as they provide better information on how many licensees are currently working, maintain the currency of contact information or review the currency of personal and financial probity, for example. Introducing a choice of licence periods will benefit licensees as the flexibility will allow them to tailor their application to their individual needs and resources, however there will be a small increase in complexity for those jurisdictions not currently offering such a range of licence terms and it may make it more difficult for them to predict revenue.

If licensees opt to apply for a licence with a one or three year period, the benefits of moving to a consistent licence period would be reduced.

Table 4.12 provides indicative costings representing the benefit to licensees if all licensees chose to select the maximum licence period of five years. These figures would represent a potential overestimate as there will be a variety of reasons why a licensee may not wish to avail themselves of

^a This analysis does not account for hydrocarbon licensees.

the savings that might be presented should they opt for the longer period. It is unclear what proportion of licence holders would choose each licence duration and therefore is difficult to cost.

Table 4.12: Impact for licensees under a standard licence period of five years

\$ million	NSW	Vic	Qld	National
Annualised ongoing benefit	0.082	0.59	0.51	1.19
10-year NPV as at 1 July 2012	0.53	3.86	3.32	7.71

As a comparison, Tables 4.13a - 4.13c shows the impact for licensees under a range of alternative licence periods, from 3 years to a perpetual licence.

Table 4.13a: Impact for licensees under a standard licence period of three years

\$ million	NSW	Vic	Qld	National
Annualised ongoing benefit	-	0.45	0.43	0.87
10-year NPV as at 1 July 2012	-	2.92	2.77	5.69

There would be no impact in New South Wales, as its licence period is already three years (with the option of one year). In Victoria and Queensland, contractors are assumed to benefit from a longer licence period.

There would be no impact for licensees who work in New South Wales, Victoria or Queensland, but live in a state or territory that does not licence refrigeration and air-conditioning work.

Table 4.13b: Impact for licensees under a standard licence period of a maximum 10 year licence period

\$ million	NSW	Vic	Qld	National
Annualised ongoing impact	0.14	0.70	0.57	1.42
10-year NPV as at 1 July 2012	0.94	4.56	3.74	9.23

Table 4.13c: Impact for licensees under a perpetual licence period

\$ million	NSW	Vic	Qld	National
Annualised ongoing impact	0.21	0.81	0.64	1.65
10-year NPV as at 1 July 2012	1.34	5.26	4.15	10.75

While the most benefit could be obtained, theoretically, by increasing the licence term to an even longer period, or by making a licence permanently valid, in practice a regular renewal period has a number of benefits for regulators and consumers, although they are not easily quantifiable. These include ensuring the contact details for each licensee are kept up to date on the public register, which also ensures robust compliance practices, providing the regulator with the opportunity to remove records for those no longer practising, so that number of skilled practitioners can be monitored and allowing for periodic checks on the currency of requirements such as personal and/or financial probity. It provides a set point at which licensees can be provided with information on

changed requirements or standards, which may necessitate professional development or other activity and it provides a revenue stream to reimburse regulator activity.

Although a 10 year licence period and a perpetual licence have benefits of \$1.42 million and \$1.65 million (annualised ongoing impact) respectively, the non-quantifiable benefits associated with a more regular renewal period mean that, on balance, a choice of 1, 3, or 5 years is the preferred longer licence period option.

Reducing the costs of regulatory requirements

Removing 'broader fit and proper' tests as part of personal probity requirements

Under national licensing, broader 'fit and proper' personal probity requirements for the refrigeration and air-conditioning occupations would no longer include some checks currently undertaken in some jurisdictions. In jurisdictions that currently impose broader fit and proper tests for individual licence applicants, there is a potential benefit to those licensees from this change, where they currently incur costs associated with these tests.

Based on a mapping exercise undertaken by the COAG National Licensing Taskforce, New South Wales and Victoria currently impose broader fit and proper test as part of their personal probity requirements.⁸

In Victoria, it is assumed this can be proven by providing two written reference statements. It is estimated that this imposes a time cost of about 20 minutes for each applicant. In New South Wales, a declaration must be made, which is estimated to impose a time cost of ten minutes. For more detail on these assumptions, see Attachment F.

These time costs would be saved under national licensing by new licence holders applying for a licence in these jurisdictions. Based on the hourly wage rates assumed in this Decision RIS and the time estimates above, removing this requirement would save licensees about \$0.004 million per annum or \$0.03 million NPV over ten years as at 1 July 2012. The distribution of benefits across jurisdictions is shown in Table 4.14.

Table 4.14: Benefit to licensees from the removal of personal probity requirements for workers

\$ million	NSW	Vic	National
Annualised ongoing benefit	0.002	0.002	0.004
10-year NPV as at 1 July 2012	0.02	0.01	0.03

For further information on the assumptions underlying this estimate, see Attachment F.

It is estimated that the jurisdictional regulators will also benefit from removing fit and proper requirements due to the time taken to consider this information during application processing. At

Based on the mapping exercise undertaken by the COAG National Licensing Taskforce, which identified the differences between state and territory licensing requirements and the requirements proposed under national licensing.

It is assumed that 30 minutes will be required for an applicant to obtain a passport photo and two written references; see PricewaterhouseCoopers, Private security regulations 2005: Regulatory Impact Statement, p. 29. In the absence of any other information, it is assumed that two-thirds of this cost is attributable to obtaining two written references (i.e. 20 minutes).

this stage, for the Decision RIS, the benefit to regulators has not been included in the cost–benefit analysis.

Removal of duplicate testing

When applying for a refrigeration and air-conditioning licence in Victoria, the Victorian regulator (the Plumbing Industry Commission) currently requires applicants to undergo additional testing. Three tests can be applied:

- a practical skills test
- a registration exam
- a licence (theory) exam.

Licensees are generally only required to sit one of these tests, which is likely to be either the registration or licence exam. This test is in addition to qualification requirements and would be removed under a national licensing model, thereby benefiting new applicants who would no longer incur costs associated with this test. The avoided costs include the fees for the test and the time required to sit it. The saving to new licence holders in Victoria of this change is estimated to be \$0.03 million per annum or \$0.23 million NPV over ten years. For further information on the assumptions underlying these estimates, see Attachment F.

Removing experience requirements

Currently in Victoria and Queensland, ¹⁰ it is a licensing requirement that refrigeration and air-conditioning licensees have a specified level of experience before obtaining a licence. This means that qualified workers who wish to obtain a licence must have a level of experience in the industry before being granted a licence (generally between one and six years, depending on the jurisdiction). This would mean they could essentially only work under supervision until they have sufficient experience.

Under national licensing, experience requirements would be removed and workers could obtain their licence sooner if they wish to do so.

The direct benefit to licence holders of removing experience requirements could be measured, for example, by the increase in wages when a qualified individual receives their licence. This is the value that licence holders would gain by progressing earlier. Data on wages in this industry is limited, and the actual wage differential is unknown. Note that this benefit would only be realised by licensees who otherwise would not progress to their licence solely due to the current experience requirements.

While the exact impact of the experience requirement is unknown, some assumptions can be made to provide an indicative estimate of the potential saving from its removal. Assuming that there is a positive and sizeable wage differential, if at least 50 cents is assumed to be attributable to experience requirements and assuming that licensees are currently missing out on this for at least

Based on the mapping exercise undertaken by the COAG National Licensing Taskforce, which identified the differences between state and territory licensing requirements and the requirements proposed under national licensing.

one year, the estimated impact would be \$0.23 million per annum or \$1.50 million NPV over ten years as at 1 July 2012. The distribution of benefits across jurisdictions is shown in Table 4.15.

Table 4.15: Benefit to licensees from the removal of experience requirements

\$ million	Vic	Qld	National
Annualised ongoing impact	0.14	0.09	0.23
10-year NPV as at 1 July 2012	0.92	0.58	1.50

For further information on the assumptions underlying this estimate, see Attachment F.

It is assumed that licensees who progress to become a contractor or full licence holder would continue to perform the refrigeration and air-conditioning work that they undertook under their previous licence (for example, a new contractor would essentially be a full licence holder who is also able to contract with the public). Under this assumption, there would be no change in wages for remaining full licence holders. If an alternative assumption was made however, it is possible that there could be some, albeit small, change in wages for existing licence holders. The challenge in identifying this change is the uncertainty surrounding the elasticities of supply and demand for licensed refrigeration and air-conditioning work.

Impacts imposed by new requirements

Introducing a worker licence in Queensland (under national licensing model A)

Under national licensing model A, both workers and contractors would be required to hold a licence. This represents an increase in regulation in Queensland, as they currently only license contractors. There is limited information on the number of workers in Queensland, given that they are not licensed. Similarly, there is no current fee set for workers in Queensland. For the purposes of this analysis, Queensland has estimated that there would be approximately 4,000 workers who would need to obtain a licence. The fees for these licensees are based on the fee for a three year licence for fire occupational licensees in Queensland. For details on these inputs, see Attachment F.

It is estimated that introducing a worker licence in Queensland would cost licensees \$0.27 million annualised per annum or \$1.79 million NPV over ten years.

Removing the mechanical services - restricted to single head split systems licence in Victoria – impact on new licensees who choose to become full licence holders (under national licensing model A)

The removal of the mechanical services - restricted to single head split systems licence in Victoria will mean that new licensees in Victoria will have a higher cost of obtaining their licence because they will have to gain a full licence instead of a restricted licence. A full licence would require a Certificate III rather than the current Certificate II required for a restricted licence. The difference in cost between a Certificate III and a Certificate II would therefore be incurred by new licensees that would have opted for the restricted licence.

This section estimates the impact on new licensees who would choose to become *full licence holders* under national licensing. The impact on those who would choose to become *contractors* under national licensing is estimated separately, as it would occur under both national licensing models. This impact is outlined in a subsequent section below.

The impact on those who would become full licence holders is shown in Table 4.16. This impact applies only to national licensing model A.

Table 4.16: Impact of removing the restricted licence or registration in Victoria

\$ million	NSW	Vic	Qld	National
Annualised ongoing impact	-	(0.73)	-	(0.73)
10-year NPV as at 1 July 2012	-	(4.75)	-	(4.75)

Increasing the number of contractor licensees in Queensland (under both national licensing models)

Currently in Queensland a contractor's licence is only required for work above \$3,300. Queensland has estimated that removing this threshold would increase the number of contractor licensees by 25 per cent. Given that no threshold is proposed under national licensing, an additional 25 per cent of licensees would incur the cost of obtaining and renewing a contractor licence (incurring both the time cost to apply and the fees payable). This is estimated to cost \$.09 million annualised per annum or \$0.57 million NPV over ten years.

Introducing a contractor licence for businesses in Victoria (under both national licensing models)

Given that Victoria does not license contractors and only licenses individuals, businesses (i.e. companies and partnerships) would need to apply for a licence under national licensing (models A and B). This would lead to costs for these businesses from paying licence fees and spending time applying for the licence.

As they are not separately licensed, the number of businesses that would require such a licence is unknown. To approximate the number of businesses, the proportion of contractor licensees that are businesses in New South Wales has been used to prorate the number of licensees in Victoria. Based on this, and the fees and licence period currently set for full licence holders in Victoria, the cost in Victoria of introducing a contractor licence is estimated to be \$0.12 million annualised per annum or \$0.80 million NPV over ten years. For more information on the assumptions underlying this estimate, see Attachment F.

Removing mechanical services - restricted to single head split systems licence in Victoria – impact on new licensees who choose to become contractors (under both national licensing models)

The removal of the mechanical services - restricted to single head split systems licence in Victoria would mean that new licensees in Victoria would have a higher cost of obtaining their licence. This cost is described above and the impact on new licensees who would choose to become *full licence holders* is shown in Table 4.16. A similar impact would also occur for new licensees in Victoria who would choose to become *contractors* under national licensing. As outlined above, there would be a cost from having to obtain a Certificate III rather than the Certificate II currently required for the restricted licence.

The estimated impact on new contractors in Victoria from removing the restricted licence is shown in Table 4.17. This impact would apply under national licensing models A and B, and the impact

would be the same across both of these options. There would be no impact under the no licensing approach

Table 4.17: Impact of removing the restricted licence for contractors in Victoria

\$ million	NSW	Vic	Qld	National
Annualised ongoing impact	-	(0.99)	-	(0.99)
10-year NPV as at 1 July 2012	-	(6.45)	-	(6.45)

Total impact of removing the mechanical services - restricted to single head split systems licence in Victoria (impact on contractors and full licensees)

The total impact of removing the mechanical services - restricted to single head split systems licence in Victoria is shown in Table 4.18. This includes both the impact on contractors and the impact on licensees (i.e. occupational or 'worker' licensees).

Table 4.18: Impact of removing the mechanical services - restricted to single head split systems contractor and occupational licences in Victoria

\$ million	NSW	Vic	Qld	National
Annualised ongoing impact	-	(1.72)	-	(1.72)
10-year NPV as at 1 July 2012	-	(11.20)	-	(11.20)

Changes to qualification requirements

Changes in qualification requirements for Queensland contractors

Currently in Queensland, refrigeration, air-conditioning and mechanical services are licensed in two categories: limited and unlimited design. Trade contractors who wish to obtain a limited design licence are required to obtain a Certificate III-level qualification, which is the same as that required for the refrigeration and air-conditioning licence in national licensing model A. Trade contractors who wish to obtain an unlimited design licence are required to obtain a Diploma in Engineering (Refrigeration and Air Conditioning) or Advanced Diploma of Refrigeration and Air Conditioning Engineering.

Under national licensing, design is not included in the scope of work, and prospective licensees would only be required to obtain a Certificate III-level qualification. The added cost of achieving a Diploma or Advanced Diploma for unlimited design licensees is estimated to be \$5,196 and 1,200 hours of time. For further information on the assumptions underlying these estimates, see Attachment F.

Based on the number of unlimited design licensees in Queensland and the time and fees for the relevant training course, the total benefit to industry from decreasing the qualification requirements would be \$1.63 million annualised per annum or \$10.63 million NPV over ten years. This benefit is only applicable to Queensland.

Changes in qualification requirements in Victoria

Currently in Victoria, entrants who wish to obtain a licence or registration in the specialised plumbing class of refrigerated air-conditioning are required to obtain a licence in the main plumbing

class of mechanical services. In order to pass the licence assessment for this class, applicants are required to demonstrate extra business and technical skills. This section outlines the extra technical qualification requirements, and the next section outlines the extra business qualification requirements.

Applicants are required to demonstrate one Certificate IV-level technical competency unit: CPCPMS4001A— to plan, size and layout heating and cooling systems.

Under national licensing, licensees will only be required to attain a Certificate III-level qualification. The estimated training cost for achieving the extra technical skills competency is \$332.80 and 160 hours of time. It is assumed that both full licence holders and registered tradespersons are required to complete this competency. For further information on the assumptions underlying these estimates, see Attachment F.

Based on the time and fees spent on the relevant training courses, the total impact on industry from this change to qualification requirements is \$1.08 million annualised per annum or \$7.04 million NPV over ten years. This benefit is only applicable to Victoria.

Changes in business qualification requirements

Currently in Victoria and Queensland, business qualifications are required for certain licensees to obtain a refrigeration and air-conditioning licence. To obtain a licence or registration in Victoria, applicants must demonstrate competency in three Certificate IV-level units in business training. In Queensland, contractor licensees are required to provide evidence of completion of a Queensland Building Services Authority approved managerial course.

Under national licensing, these business qualifications will not be required. The estimated cost for achieving competency in the three Certificate IV-level units in Victoria is \$257.92 and 124 hours of time. It is assumed that both full licence holders and registered tradespersons are required to complete the business competencies. In Queensland the estimated cost for undertaking a Queensland Building Services Authority approved managerial course is \$273 and 15 hours of time. For further information on the assumptions underlying these estimates, see Attachment F.

The overall impact at a national level is \$0.94 million per annum (annualised over ten years), or \$6.11 million NPV over ten years. The distribution of impacts across jurisdictions is shown in Table 4.18.

Victoria has stated that although the competencies for these business units are required for licensing in this specialised class, the actual units do not need to be completed if these competencies can be demonstrated in other ways. For instance, an applicant may be able to demonstrate experience in running a business or already hold electrical contractor registration. In practice, very few persons licensed in refrigerated and air-conditioning work attain the prescribed business competencies through completing the Certificate IV units. As no evidence of numbers of licensees undertaking an alternative pathway, is acknowledged that the figures contained within Table 4.19 maybe overestimated.

Queensland have expressed the view that the above assumptions do not consider the broader benefits to the community and industry of having licensees who are better equipped to manage their business and their cash-flow and are therefore less likely to experience business failure.

Feedback from the information sessions and some stakeholder responses to the Consultation RIS showed that industry also considers business skills to be essential in running a contractor business. However no evidence was forthcoming to support this view.

Table 4.19: Impact on licensees from changes to business qualification requirements

\$ million	Vic	Qld	National
Annualised ongoing impact	0.84	0.10	0.94
10-year NPV as at 1 July 2012	5.46	0.65	6.11

Business value-add

Part of the benefit of these reforms accrues to labour that is selling refrigeration and air-conditioning services. However, part of the benefit of these reforms accrues to whoever is buying those services. That could be a business or a household. For a business, having a larger quantity of lower cost refrigeration and air-conditioning services allows the sector to undertake more work at a cheaper price and earn higher profits. Households that purchase refrigeration and air-conditioning services will gain from access to more and cheaper services.

For the purpose of this Decision RIS, the benefits to the business and household buying refrigeration and air-conditioning services are assumed to be one-third of the direct benefit to labour. This estimate is based on research conducted by the Australian Bureau of Statistics on income shares for factors of production (labour and capital), which estimates the profit share of total factor income (essentially the return to capital of total income in the economy). ¹¹ This measure is the best available indicator of the extent to which income is returned to capital (as opposed to being returned to labour in the form of wages).

The net efficiency benefits (i.e. time-based impacts only) to licensees on an ongoing basis under national licensing are estimated to be \$2.28 million in net terms per annum. This translates into a net benefit to business of \$0.76 million per annum in terms of business value-add gained, or \$4.95 million NPV over ten years. The distribution of benefits across jurisdictions is shown in Table 4.20.

Table 4.20: Business value-add - ongoing net benefit to business

\$ million	NSW	Vic	Qld	National
Annualised ongoing benefit	0.01	0.19	0.56	0.76
10-year NPV as at 1 July 2012	0.06	1.25	3.64	4.95

National Occupational Licensing Authority - ongoing operational costs

A key element of the national licensing model is the establishment of a National Occupational Licensing Authority (NOLA). The role of NOLA would be to develop consistent national policy for obtaining a licence and to administer the national system. To undertake its role, NOLA would have ongoing costs such as staff remuneration, maintenance of the national licensing register and meeting costs.

¹¹ Australian Bureau of Statistics 2011, Australian System of National Accounts 2010–11, cat. no. 5204.0, ABS, Canberra.

The licensing authority would be used not just for the initial occupations but for future occupations under national licensing that would be introduced over several stages, and its cost has therefore been discounted to account for this. Based on the detailed budget of the licensing authority provided by the COAG National Licensing Taskforce, the ongoing costs are estimated at \$0.08 million per annum or \$0.60 million NPV over ten years as at 1 July 2012. Table 4.21 illustrates the pro rata distributional effects of the costs (based on the distribution outlined above in Table 4.3).

Table 4.21: National Occupational Licensing Authority - ongoing operational costs

\$ million	NSW	Vic	Qld	National
Annualised ongoing cost	0.05	0.02	0.01	0.08
10-year NPV as at 1 July 2012	0.36	0.18	0.07	0.60

Potential changes in government revenue

Under many of the changes and impacts outlined above, there will be an impact on government regulators flowing from the changes to the licensing system. Where licensing is removed and there is a direct benefit to licence holders from no longer paying licence fees, there is also a cost to government through reduced revenue. However, regulators would also realise some savings from no longer regulating these licensees. If fees are directly representative of the cost of regulating licensees, the net impact on government would be zero, as the loss of revenue would be exactly offset by the savings from reduced licensing activities. We note, however, that some jurisdictions believe that savings from reduced licence processing will be offset by other costs associated with the reforms.

Similarly, where changes are made to training requirements (such as the removal of diploma requirements for unlimited design licensees), training providers would receive less fee revenue (and any associated profit component) but would also no longer incur the cost of running those courses.

There is only one change (or impact) where the reduction in revenue for government is assumed not to equal the savings from changes in licensing activities, leading to a net cost or benefit to government. This is the removal of multiple licences held across jurisdictions. The impact for government in this case has been discussed above at 4.1.1.

Potential benefits to governments from simplified administrative arrangements

A further area of benefit considered in this analysis is the potential savings over time for governments under the proposed national licensing approach.

As set out in previous chapters, the proposed approach to national licensing would retain the role of state and territory regulators in issuing licences, conducting compliance and enforcement activities and overseeing conduct requirements. The licensing authority would be responsible for licence policy development and coordination of the system.

The investment in a licensing authority, with resources allocated to policy functions, coordination and future reforms should reduce the need for these functions at the state and territory level. There is, however, uncertainty about the extent to which these savings would be realised. Key arguments provided include:

- the need for resources to continue to coordinate with the licensing authority, which would liaise with state and territory regulators
- the desire for state and territory regulators to retain policy input, thereby removing the potential to reduce resources allocated to policy
- the need for staff to update the national licensing register with jurisdictional licence data
- the difficulties for small jurisdictions to realise savings with small teams, which would continue to work across occupations that are included in the national licensing approach, as well as other occupations that would continue to be licensed at the jurisdictional level (essentially a difficulty in achieving economies of scale).

The points reflect current views among regulatory agencies that their role, and therefore their resource requirements, is unlikely to significantly change under a national licensing approach. There is currently a strong focus on the resources required to transition to a national system (for example, the transition from jurisdiction-based licensing registers to a national register). These transition costs are not necessarily representative of future efficiencies that can be achieved once a new system is fully implemented and bedded down. It is, therefore, important to differentiate between these transition impacts and the potential benefits of administering a national licence system over the medium to long term.

A way forward appears to be an improved focus on future functions of agencies, and the extent to which there would be opportunities for savings, if there is a willingness of agencies to realise these savings over time

This Decision RIS considers three key areas where there may be opportunities to streamline state and territory functions over time under a national licensing approach. The most salient of these is the streamlining of licensing policy functions.

Streamlining policy functions

Under a national licensing approach, the licensing authority would be responsible for developing national licensing policy for each occupational area and overseeing its consistent application by jurisdictional regulators. The operation of licensing services would be delegated to the existing jurisdictional regulators. State and territory regulators would use existing staff and infrastructure for these licensing functions.

Centralising policy development would allow state and territory governments to scale back the resources they currently allocate to these functions. The licensing authority would provide policy direction to jurisdictional regulators, which should reduce their administrative costs.

An analysis of administrative and governance requirements for a national licensing system conducted in 2009 included a preliminary analysis of the potential savings for jurisdictions. ¹² The analysis considered the total full-time equivalent resource requirement for regulators across seven

¹² PricewaterhouseCoopers 2009, National Occupational Licensing System: estimating financial impacts: final report.

occupations, ¹³ estimating what proportion of these are required for policy functions that would be conducted by the licensing authority under the new approach. The analysis found:

- a potential saving of \$16.2 million annually across all seven occupations
- for the refrigeration and air-conditioning occupation, this would equate to a NPV saving of \$2.28 million over ten years.

These estimates are a useful indication of the potential scale of savings that could be realised. However, agencies doubt the likelihood that these savings could be fully realised due in part to new and additional work to support the licensing authority and effectively contribute to national policy development, and undertake additional administrative functions as delegates of the licensing authority (as compared to current arrangements).

Reduction of requirements to maintain the mutual recognition system

All Australian governments currently have a responsibility, under legislation, to administer and maintain mutual recognition as a means of improving the efficiency of the licensing of occupations across Australia. There are two key areas where a change to national licensing would result in reduced costs for governments.

The *Mutual Recognition Act 1992* provides that ministers may jointly declare occupations licensed by jurisdictions to be equivalent, and may specify or describe any conditions necessary to achieve equivalence.

Ministerial declarations are an important component of the entire mutual recognition approach, as they establish equivalence in licences, thereby improving the effectiveness of outcomes from mutual recognition applications. Maintaining this system does, however, require an ongoing resource commitment by all governments, for key tasks such as reviewing the ministerial declarations and updating the schedules of occupations and their relevant conditions.

Those agencies that make decisions based on the ministerial declarations (i.e. state and territory regulators) must ensure that their staff understand how to use them, and that they are updated on changes to the licence equivalence tables contained within the declarations.

Under national licensing, fewer resources would be required to maintain ministerial declarations and update the information contained in the declarations. This results in a cost saving for all state and territory governments. The potential amount of cost saving will vary across governments, depending on the current resource allocation to these tasks, how regulators may change their practices under a national licensing approach, and whether a commensurate level of work is required to maintain national regulations and other instruments.

Currently, licensing authorities are required to explain mutual recognition principles to licence holders and businesses, including providing guidelines and information about the operation of mutual recognition in relation to the occupations for which they are responsible. Licensing authorities must also provide information reasonably required by another licensing authority about a person seeking a licence under mutual recognition. Under national licensing, regulators would

Occupations assessed were building occupations, electrical, plumbing and gasfitting, refrigeration and air-conditioning mechanics, land transport (both passenger and dangerous goods), property and maritime.

continue to communicate licensing requirements; however, it is likely that the simplified arrangements under national licensing, and the inclusion of a national licensing register, would reduce the complexity of information that needs to be communicated (such as removing the need to explain the conditions under which mutual recognition may or may not apply).

It should be noted that there would still be a need for mutual recognition of licences that are not covered under national licensing and that there would also be a need to recognise occupational licences from New Zealand under the Trans-Tasman Mutual Recognition Arrangement.

4.1.5 Other impacts that have not been quantified

Consistency of licensing requirements across jurisdictions

Currently, when applying for a licence in another jurisdiction, the licence holder incurs costs associated with understanding the different requirements to gain a licence in that jurisdiction. While in some cases the differences between jurisdictions may be minimal, in others it may be significant. Therefore, applicants cannot assume that their knowledge of licensing requirements would be transferrable to another jurisdiction, and they must invest some time in investigating licence requirements for the jurisdiction in which they wish to work.

Under national licensing, there would be a single licensing system for licence holders to understand and adhere to. Licence holders who work in more than one jurisdiction would benefit from greater consistency in licensing requirements across those jurisdictions. National licensing would provide consistency across all licensing characteristics, including:

- the regulated work that can be performed
- licence categories
- exemptions from licensing
- skills- and non-skills-based requirements.

Therefore, those operating in multiple jurisdictions would experience a saving gained by no longer needing to invest time in understanding the differences and nuances of licensing systems in more than one of those jurisdictions. This potential time saving would vary depending on the type of licence and jurisdiction where the application is being lodged. There is currently insufficient data to quantify this time saving.

Benefits from enabling future reforms

The refrigeration and air-conditioning occupation is one of four first-wave occupational areas being considered for national licensing. Further reforms are proposed in second-wave occupational areas (including building-related occupations), and in the potential harmonisation of conduct requirements. These reforms are linked in terms of providing a complete reform of licensing requirements. In particular, the potential harmonisation of conduct reforms is likely to deliver related benefits for licence holders where current regulatory requirements for licences are included in conduct requirements (for instance, a number of potential benefits from reform of licence requirements in this Decision RIS are not included in estimates as they fall under conduct requirements). However, these potential conduct reforms are yet to be agreed on.

Other impacts

Some further remaining benefits are worth noting in this section, but have not been quantified. These impacts are minor and are not expected to have a significant impact on the analysis. They include:

- Changes to the Queensland hydrocarbon licence. In Queensland, a licence is required if a refrigeration and air-conditioning mechanic wishes to work with hydrocarbon refrigerants. Under both national licensing models and the no licensing (except for the Commonwealth Arctick licence) option, this licence would no longer be required. Current and future licensees would therefore save time and effort from no longer having to apply for a licence, and would no longer have to pay licence fees to obtain this licence. New licensees would also avoid the cost of completing any relevant training required to obtain the licence. Currently, there are 25 gas work (hydrocarbon refrigerants) licensees in Queensland, meaning the overall impact would be small.
- Instead of removing this licence, Queensland strongly supports the inclusion of an
 endorsement under national licensing for licensees working with hydrocarbon refrigerants.
 If an endorsement was introduced under any of the options being considered, it would
 lead to an increase in costs for licensees in New South Wales and Victoria. The Steering
 Committee has agreed to include hydrocarbons (joining other natural refrigerants such as
 ammonia and carbon dioxide in the list) as a prescribed substance under the regulations.
- The benefits to licensees from removing the licensing of duct work. This is a fairly narrow scope of work and would only affect licensees if they undertake duct-related work only.
 The licensee would still require a licence for other refrigeration and air-conditioning work to undertake the regulated scope of work. Given this, it is expected that only a small number of licensees would be affected.
- The removal of design from the scope of work for the refrigeration and air-conditioning occupation. It is unclear how significant this change will be for licensees, but it does appear to be a fairly small component of the overall scope of work..
- The removal of additional testing or eligibility requirements, such as, health and fitness and age requirements in New South Wales. The removal of these requirements would reduce barriers to licensing and benefit new licence holders.

4.1.6 Impact on consumer outcomes

Under national licensing, it is proposed that a number of current requirements for licensing be changed on the basis that they represent an unnecessary regulatory burden for licence holders. Several of these requirements have the potential to impact consumer protection outcomes, namely:

- the removal of experience requirements
- the proposed changes to qualification requirements in some jurisdictions.

Attachment D provides a detailed analysis of the risks associated with refrigeration and air-conditioning work.

The key consideration for this analysis is whether any of the proposed changes in licensing arrangements would alter consumer protection outcomes.

Changes to licence periods would not alter licence requirements, though it could potentially lengthen the time between renewals, and therefore the time for regulators to receive updated information. However, across the entire licence period, whatever the length, compliance and enforcement would continue to be required – renewal is just one element of the process.

In relation to competency units, these units may improve the competency or management skills of licence holders.

The establishment of the national register will provide more consistent information for consumers across the country as well as enhanced quality of data.

4.2 National licensing model B: partial regulation

Under this model, a licence would only be required to contract with the public for refrigeration and air-conditioning work. That is, only contractors would be licensed and all other worker licensees would no longer need a licence.

4.2.1 Costs and benefits that are consistent with national licensing model A

Many of the costs and benefits under the full regulatory option of national licensing model A would still be relevant under a partial regulation approach. These include:

- transition costs, including the time for licensees to understand the new reforms, business value-add lost, setting up the licensing authority, jurisdictional implementation of the national licensing register and government communication costs
- the introduction of contractor licences for businesses in Victoria
- increasing the number of contractor licensees in Queensland, attributed to the removal of the \$3,300 threshold for building work which includes refrigeration and air-conditioning work
- ongoing operational costs of the licensing authority
- changes to qualification requirements, including removal of the requirement to hold a
 diploma for an unlimited design licence in Queensland, and the requirement to undertake
 an additional Certificate IV unit in Victoria and the removal of business competencies
- The removal of restricted refrigeration and air-conditioning (heat pump and split system installation) contractor licence
- the removal of duplicate testing
- the removal of fit and proper tests from personal probity
- the removal of experience requirements.

Compared to the current licensing system, the impacts of these changes would still occur if there was partial regulation. The amount of these impacts would be exactly the same as under national licensing model A (full regulation).

Labour mobility

Benefits from labour mobility would also accrue under this model. Given that licensing would only be required for contractors, worker licensees would be entirely free to move between all jurisdictions without licensing barriers. The benefit that would accrue from labour mobility would therefore be at least as high as the benefit quantified for model A of national licensing (\$2.46 million per annum or \$16.15 million NPV over ten years), but could be higher.

Removing the requirement to obtain a worker licence

Under this model, licence holders who do not contract with the public ('workers') in New South Wales and Victoria would no longer be required to apply for a licence to undertake refrigeration and air-conditioning work. They would therefore benefit through reduced expenditure on licence fees, and reduced costs associated with applying for the licence.

Currently in Victoria, all licence holders can contract with the public even if they do not wish to do so. Given that Victoria does not currently licence contractors separately, the proportion of licensees who do not contract with the public and are just 'workers' is unknown. To estimate the impact of removing the licensing of workers in Victoria, the assumed proportion of licensees who are 'workers' has been based on the proportion in New South Wales. The licence fee and period assumed for estimating this impact are those relating to a registered tradesperson.

This benefit to licensees is estimated to be \$0.33 million annualised per annum or \$2.13 million NPV over ten years as at 1 July 2012. The distribution of benefits across jurisdictions is shown in Table 4.22. There is no impact in Queensland because it does not license workers.

Table 4.22: Benefit to licensees of removing the requirement to hold a worker licence under the partial regulation model

\$ million	NSW	Vic	Qld	National
Annualised ongoing benefit	0.10	0.23	-	0.33
10-year NPV as at 1 July 2012	0.66	1.47	-	2.13

For further information on the assumptions underlying these estimates, see Attachment F.

Removal of multiple licences held across jurisdictions

The impact of removing multiple licences held across jurisdictions is estimated in the same way as under national licensing model A, but is only applied to contractors. The benefit to contractors is estimated to be \$0.08 million per annum or \$0.51 million NPV over ten years as at 1 July 2012, and the associated cost to government is estimated to be \$0.07 million annualised per annum or \$0.45 million NPV over ten years as at 1 July 2012. The distribution of these impacts across jurisdictions is shown in Table 4.23.

Table 4.23: Impacts from contractors no longer holding multiple licences across jurisdictions

\$ million	NSW	Vic	Qld	National
Benefit to contractors				
Annualised ongoing benefit	0.03	0.02	0.02	0.08
10-year NPV as at 1 July 2012	0.22	0.15	0.14	0.51
Cost to government				
Annualised ongoing cost	0.04	0.005	0.03	0.07
10-year NPV as at 1 July 2012	0.23	0.03	0.19	0.45

For further information on the assumptions underlying these estimates, see Attachment F.

Consistent licence period of a proposed one, three or five years

Under national licensing model B (partial regulation) this impact is only relevant for contractors. The impact of moving to a consistent licence period is estimated in the same way as under national licensing model A, but is only applied to contractors. The benefit to contractors is estimated to be \$1.10 million per annum or \$7.17 million NPV over ten years as at 1 July 2012. The distribution of benefits across jurisdictions is shown in Table 4.24. A sensitivity of longer licence periods across the different options is provided in 4.1.4.

Table 4.24: Benefit for contractors of moving to a standard licence period of five years

\$ million	NSW	Vic	Qld	National
Annualised ongoing benefit	0.05	0.54	0.51	1.10
10-year NPV as at 1 July 2012	0.34	3.50	3.32	7.17

For further information on the assumptions underlying these estimates, see Attachment F.

Business value-add

The ongoing impacts to labour under partial regulation outlined above would have a flow-on impact for business value-add. This concept is the same as under model A of national licensing and the same assumptions have been used to calculate the impact. Under model B, the benefit to business in terms of value-add would be \$1.02 million per annum or \$6.62 million NPV over ten years as at 1 July 2012. The distribution of benefits across jurisdictions is shown in Table 4.25. The benefits are higher under this model than under model A because the removal of worker licences has a labour time component.

Table 4.25: Business value-add - ongoing net benefit to business under national licensing model B

\$ million	NSW	Vic	Qld	National
Annualised net ongoing benefit	0.01	0.44	0.56	1.02
10-year NPV as at 1 July 2012	0.10	2.88	3.64	6.62

For further information on the calculation and the assumptions underlying these estimates, see Attachment F.

Impact on consumer outcomes

Under national licensing model B, there would be no additional licensing for workers over and above the Commonwealth Arctick licence. This would only represent a change for New South Wales and Victoria. It is unsure whether removing licensing in those jurisdictions would have any impact on consumer outcomes, in particular consumer safety.

4.3 No national licensing (except for the Commonwealth Arctick licence

Under this option, the refrigeration and air-conditioning occupation would not be included in the national licensing system, and New South Wales, Victoria and Queensland would remove their current licensing system for the refrigeration and air-conditioning occupation. The Commonwealth Arctick licence would remain.

4.3.1 Costs and benefits that are consistent with national licensing (model A: full regulation)

Many of the ongoing benefits under the full regulatory option of national licensing model A would still be relevant under a no licensing (except for the Commonwealth Arctick licence) approach. These include:

- changes to qualification requirements, including removal of the requirement to hold a diploma for an unlimited design licence in Queensland, the requirement to undertake an additional Certificate IV unit in Victoria and the removal of business competencies
- the removal of duplicate testing
- the removal of fit and proper tests from personal probity
- the removal of experience requirements.

Other than the changes in qualifications listed above, it is assumed that under no national licensing, there would be no additional saving of qualification costs. This is because the qualifications or 'technical skills' required for the Commonwealth Arctick licence are broadly comparable to those proposed under national licensing and would continue to be required even under no national licensing.

Labour mobility

Benefits from labour mobility would also accrue under this option. Given that licensing would be removed in all states and territories, refrigeration and air-conditioning mechanics would be entirely free to move between all jurisdictions without licensing barriers. The benefit that would accrue from labour mobility would be at least as high as the benefit quantified for model A of national licensing (\$2.46 million per annum or \$16.15 million NPV over ten years), but could be higher – however this is difficult to quantify.

Removing the requirement to obtain a licence

Under the no licensing (except for the Commonwealth Arctick licence) option, licence holders in New South Wales, Victoria and Queensland would no longer be required to apply for a licence to undertake refrigeration and air-conditioning work. They would therefore benefit through reduced expenditure on licence fees, and reduced costs associated with applying for the licence (primarily time). This benefit to licensees is estimated to be \$3.75 million per annum or \$24.40 million NPV over ten years as at 1 July 2012. The distribution of benefits across jurisdictions is shown in Table 4.26.

Table 4.26: Benefit to licensees of removing the requirement to hold a licence under the no licensing (except for the Commonwealth Arctick licence) option

\$ million	NSW	Vic	Qld	National
Annualised ongoing benefit	1.18	1.25	1.32	3.75
10-year NPV as at 1 July 2012	7.65	8.15	8.59	24.40

For further information on the assumptions underlying these estimates, see Attachment F.

Business value-add

The ongoing impacts to labour under no licensing (except for the Commonwealth Arctick licence) outlined above would have a flow-on impact for business value-add. This concept is the same as under model A of national licensing and the same assumptions have been used to calculate the impact. Under no licensing (except for the Commonwealth Arctick licence), the benefit to business in terms of value-add would be \$1.39 million per annum or \$9.03 million NPV over ten years as at 1 July 2012. The distribution of benefits across jurisdictions is shown in Table 4.27.

Table 4.27: Business value-add – ongoing benefit to business under the no licensing (except for the Commonwealth Arctick licence) option

\$ million	NSW	Vic	Qld	National
Annualised ongoing cost	0.02	0.80	0.56	1.39
10-year NPV as at 1 July 2012	0.15	5.22	3.66	9.03

For further information on the calculation and the assumptions underlying these estimates, see Attachment F.

Government communications

In terms of transition costs, the only impact expected under no licensing (except for the Commonwealth Arctick licence) would be communications costs for government. Governments would need to ensure that licensees and those who use refrigeration and air-conditioning services were aware that the occupation was no longer licensed. Given the simple nature of the proposed change under this option, this impact is estimated to be lower than under other options considered in this Decision RIS. While it is still based on Victoria's estimate from changes to the property industry (about \$325,000 per jurisdiction), only 25 per cent of this estimate has been applied to this option. Based on this, the cost to government from communicating the changes under no licensing except for the Commonwealth Arctick licence) would be \$0.24 million in transition costs or \$0.23 million NPV over ten years as at 1 July 2012. The distribution of benefits across jurisdictions is shown in Table 4.28.

Table 4.28: Government communication costs under the no licensing (except for the Commonwealth Arctick licence) option

\$ million	NSW	Vic	Qld	National
Annualised ongoing cost	0.08	0.08	0.08	0.24
10-year NPV as at 1 July 2012	0.08	0.08	0.08	0.24

Impact on consumer outcomes

The removal of licensing for the refrigeration and air-conditioning occupation in New South Wales, Victoria and Queensland would mean that there was no specific licensing for this occupation in any jurisdiction in Australia (though Commonwealth Arctick licensing would continue). This raises the question of whether removing licensing in these jurisdictions would have any impact on consumer outcomes, in particular consumer safety. Information provided by Queensland for this analysis suggests that there are risks associated with the use of flammable hydrocarbon refrigerants, and that there have been incidents where these substances have been used by untrained persons. That said, there has been no evidence of risk provided by those jurisdictions that currently do not licence refrigeration and air-conditioning work or specifically licensing working with hydrocarbon refrigerants that has induced them to introduce licensing of the occupation.

Queensland is the only jurisdiction to specifically licence hydrocarbon gases, with all other jurisdictions regulating these gases under other legislation (gas, occupational health and safety, health). Feedback from the consultation process suggested that the Queensland licence was considered a duplication in regulation and proposed a burden on licensees in that jurisdiction. The majority of stakeholders also proposed that hydrocarbons become a prescribed substance under the national regulations for the refrigeration and air-conditioning occupation and this has been recommended in this Decision RIS.

4.4 Sensitivity of results

4.4.1 Comparing the impacts for licensees working in single and multiple jurisdictions

Of the impacts that have been quantified in this analysis, two impacts relate only to those licensees and businesses who work across more than one jurisdiction. These are the benefits from:

- improved labour mobility
- the removal of multiple licences held across jurisdictions.

To demonstrate the impact of national licensing on those who work in a single jurisdiction versus those who operate across multiple jurisdictions, Table 4.29 below shows the quantified impacts separated out for each of these groups. The separation of the results has been calculated based on:

- the percentage of licensees in each state and territory domiciled in another jurisdiction
- the estimated distribution of multiple licence holders across each of the jurisdictions.

For more detail on these two assumptions, see Attachment F.

Table~4.29: Comparison~of~the~impacts~of~national~licensing~on~licensees~working~in~a~single~jurisdiction~versus~licensees~working~across~more~than~one~jurisdiction

\$ million	N	sw	V	ic .	(Qld	Nat	ional
**	Ongoing	Transition	Ongoing	Transition	Ongoing	Transition	Ongoing	Transition
National licensing m	odel A							
Impacts on those who currently operate in only one jurisdiction	0.05	(0.86)	1.00	(0.42)	2.40	(0.42)	3.45	(1.80)
Impacts on those who operate in more than one jurisdiction	1.36	(0.01)	2.44	(0.01)	0.53	(0.03)	4.33	(0.05)
Overall total impact	1.41	(0.87)	3.43	(0.53)	2.93	(0.45)	7.77	(1.85)
National licensing m	odel B							
Impacts on those who currently operate in only one jurisdiction	0.13	(0.86)	2.13	(0.42)	2.66	(0.42)	4.91	(1.80)
Impacts on those who operate in more than one jurisdiction	1.36	(0.01)	1.73	(0.01)	0.55	(0.03)	3.64	(0.05)
Overall total impact	1.48	(0.87)	3.86	(0.53)	3.21	(0.45)	8.55	(1.85)
No licensing (except	for the Com	monwealth A	rctick licence)				
Impacts on those who currently operate in only one jurisdiction	1.20	(0.08)	4.16	(0.08)	3.70	(0.08)	9.06	(0.24)
Impacts on those who operate in more than one jurisdiction	1.36	-	0.68	-	0.42	-	2.46	-
Overall total impact	2.56	(0.08)	4.83	(0.08)	4.12	(0.08)	11.52	(0.24)

^{** &#}x27;Ongoing' refers to the annualised ongoing impact per annum and 'Transition' refers to the transition cost.

4.4.2 Sensitivity testing of key assumptions

Sensitivity analysis on key assumptions of the cost–benefit analysis was undertaken for this Decision RIS. As the Office of Best Practice Regulation states:

'There may be considerable uncertainty about predicted impacts and their appropriate monetary valuation. Sensitivity analysis provides information about how changes in different variables would affect the overall costs and benefits of the regulatory proposal. It shows how sensitive predicted net benefits are to different values of uncertain variables and to changes in assumptions. It tests whether the uncertainty over the value of certain variables matters, and identifies critical assumptions.' 14

Alternative licence periods

The national licensing model assessed in this Decision RIS included a standard licence period of one or three years across all licence types and relevant jurisdictions. A proposal has been agreed for a flexible approach which will allow licensees to apply for a one, three or five year term (i.e. five years as a maximum). The following discussion was included in the Consultation RIS to inform the decision process. It has been retained here to demonstrate the variables considered and the impact that they have.

The impact of three alternatives is assessed. These are:

- A shorter licence period of three years as a maximum
- a longer licence period of ten years as a maximum
- a perpetual licence, meaning that there is no defined period to the licence and it never needs to be renewed.

Under a three- (or ten-) year licence period, licensees in jurisdictions that currently have a licence period of less than three (or ten) years would benefit because they would not need to renew their licence as often. The longest licence period for the refrigeration and air-conditioning occupation is currently three years. Therefore, all jurisdictions would benefit under a ten-year licence period from renewing their licence less often. Under a maximum three year licence, jurisdictions that currently offer a three year licence period would have no impact.

Under a perpetual licence, licensees in all jurisdictions would benefit from no longer needing to periodically renew their licence. New licensees would still need to apply for a licence, but once it was received and eligibility criteria met, no renewals would be necessary. Therefore, the cost in time and fees currently spent on renewing licences would be entirely avoided under this option.

Assuming that only the processing component of fees would be affected by a change to the licence period, Table 4.30 shows the overall quantified net impact under each licence period assessed. Under no licensing (except for the Commonwealth Arctick licence), the future licence period is not relevant and for that reason changing the licence period has no impact on the overall result.

 $^{^{\}rm 14}\,$ Australian Government 2010, Best practice regulation handbook, Canberra.

Table 4.30: Net overall impact of national licensing under various licence periods

Total NPV over ten years (\$ million)	National licensing model A	National licensing model B
1- or 3-year licence period	37.73	47.51
5-year licence period	33.85	45.15
10-year licence period	40.64	49.27
Perpetual licence	43.56	51.04

4.4.3 Net present value assumptions

Discount rate

A sensitivity analysis was undertaken on the 7 per cent discount rate used to calculate NPV figures in this Decision RIS. Table 4.31 highlights the impact that alternative discount rates (specifically, 3 per cent and 10 per cent) have on the total cost estimates for the proposed option.

Table 4.31: Alternative discount rates for the proposed option

National NPV over ten years (\$ million)	7 per cent	3 per cent	10 per cent
National licensing model A (one, three or five-year licence period)	37.73	48.15	31.82
National licensing model B (one, three or five-year licence period)	47.51	60.55	40.11
No licensing (1,3 or5-year licence period)	74.88	94.89	63.52

Net present value operating period

A sensitivity analysis was undertaken on the operating period used to calculate NPV figures in this Decision RIS. Table 4.32 highlights the impact that increasing the operating period (specifically, from ten years to 15 and 20 years) has on the total cost estimates for the proposed option.

Table 4.32: Alternative net present value operating period for the proposed option (\$ million NPV over ten years)

Operating period	National licensing model A	National licensing model B	No licensing
10 years	37.73	47.51	74.88
15 years	50.39	63.44	99.45
20 years	59.87	75.46	118.11

Note: A real discount rate of 7 per cent has been used.

The results in Table 4.32 above highlight the impact that different assumptions about the operating period can have on the estimated costs and benefits of the proposed option. In this case, increasing the operating period has a positive effect on the NPV estimate as the majority of costs are short term (i.e. transition), while the majority of benefits are long term.

4.4.4 Labour mobility assumptions

The benefits from labour mobility represent a significant share of the total benefits attributed to national licensing. Given the exact impact of labour mobility is also uncertain (as it is only one possible scenario), it is appropriate to conduct sensitivity analysis of this impact. The assumption with the greatest level of uncertainty in estimating the benefit of labour mobility is that 10 per cent of the benefit estimated by the Productivity Commission would potentially be realised through national licensing. Sensitivity has therefore been conducted on this 10 per cent assumption.

After the release of the Consultation RIS, no feedback was provided by stakeholders that indicated an assumption of 10 per cent was inappropriate. However, further feedback received from jurisdictions suggests that some States and Territories believe an estimate of 10 per cent should be considered as an upper bound estimate. As such, the assumptions used in this sensitivity analysis represent lower estimates than the 10 per cent used in the main analysis reported in this Decision RIS. The two alternative assumptions shown in this analysis are that:

- national licensing would potentially result in 5 per cent of the full labour mobility benefit estimated by the Productivity Commission
- national licensing would potentially result in **2 per cent** of the full labour mobility benefit estimated by the Productivity Commission.

The overall impact of national licensing under these assumptions, compared to the 10 per cent assumption, are shown in Table 4.33 below.

Table 4.33: Net overall impact of national licensing under various labour mobility scenarios

NPV over 10 years (\$ million)	National licensing model A	National licensing model B	No licensing
10% change in labour mobility	37.73	47.51	74.88
5% change in labour mobility	29.66	39.43	66.81
2% change in labour mobility	24.81	34.59	61.97

The net impact at a State and Territory level would remain positive for all jurisdictions under all options and scenarios shown. NPV = Net present value

4.5 Cost and benefits of the automatic mutual recognition option

Automatic mutual recognition could achieve some of the same labour mobility benefits as national licensing, as it would enhance the ability for labour to flow where the refrigeration and air-conditioning skills are most needed, and would reduce administrative and financial costs in the form of additional fees where licences are held across jurisdictions. Some of the transition costs incurred under national licensing would also be relevant under automatic mutual recognition. For example, licensees would need to spend time understanding the new licensing system and government would incur communications costs in informing licensees of the changes.

While national licensing seeks to rationalise the number of licence categories, where possible and appropriate, there is no mechanism or compulsion under automatic mutual recognition to make

such changes. Automatic mutual recognition retains individual jurisdictions' licensing frameworks and for that reason involves a lower transition cost to that envisaged under national licensing.

4.5.1 Automatic mutual recognition – unharmonised approach

Under this approach, a licence holder would automatically be allowed to perform the scope of licensed work authorised by their jurisdiction-based licence across all jurisdictions regulating that work, without applying for an additional licence or paying an additional fee. The regulated work and licence type would not be harmonised or made consistent in any way. It would be the responsibility of the licence holder, regulator and employer to understand the licensed work authorised by a licence issued by any jurisdiction. Unlike existing mutual recognition arrangements, the licence would not be 'translated' into the regulatory terms of the jurisdiction of operation. It could therefore be expected that compliance monitoring would be substantially more difficult for regulators and there would be a risk of licensees working outside their scope of work in second jurisdictions, potentially affecting consumer protection and health and safety.

This option is similar to the arrangements that apply to a driver's licence, where a licence in one jurisdiction entitles the bearer to drive anywhere in Australia. However, it should be noted that the standard automotive driver's licence arrangement works because the regulated work – driving – is essentially the same in all jurisdictions. The different approaches to refrigeration and air conditioning licensing mean that the various types of regulated work are significantly more varied than driving.

The 2009 Decision Regulation Impact Statement on the National Licensing System for Specific Occupations noted that, on examination, an unharmonised approach would not address issues of consistency or transparency, would increase the level of complexity for individuals and businesses (in understanding jurisdictional licensing and conduct differences) and has the potential to increase consumer confusion. It further noted that there are potentially perverse impacts on consumer protection outcomes by undermining the integrity of jurisdictional regulatory regimes and increasing the potential for jurisdiction shopping. It indicated that there was a significant risk that regulators would lose confidence in arrangements over time.

State and territory autonomy would be maintained and transition and implementation costs would be minimised under an unharmonised model. Jurisdictions would retain the legislative power to vary licensing requirements to meet circumstances arising in particular states over time.

While labour mobility is an important objective of national licensing, the benefits derived from national licensing could be partly achieved by automatic mutual recognition as it too would enhance the ability and attractiveness for some labour to flow where refrigeration and air-conditioning services are most needed.

The potential transition costs of this option include:

- time for licence holders to understand changes in licensing arrangements (i.e. how automatic mutual recognition works)
- government communications costs

• government compliance costs, where regulators are required to change their compliance arrangements to ensure that they are able to regulate for new licence holders working in their jurisdiction under automatic licences (this is both a transition and an ongoing cost)

In order to fully quantify and assess the impacts under this option, further guidance from governments on option parameters and available data would be needed. For example, the following information would be needed:

- information on the extent to which transition costs that have been estimated for national licensing may need adjusting to reflect differences in this option information from jurisdictional regulators on the costs associated with additional compliance
- information on the cost of the register of disciplinary actions, including information on the potential scale of this register, and how it may work with existing arrangements.

Table 4.34 shows the potential impacts under national licensing model A that could also occur under an unharmonised model of automatic mutual recognition.

Table 4.34: Potential impacts under an unharmonised automatic mutual recognition (AMR) model

Potential impacts	National licensing option impacts (model A)	Likelihood (reasonable lower bound) of achieving national licensing benefits under AMR* (per cent)	AMR impacts
Ongoing impacts (\$ million per annum annualised over ten years)			
Impacts that would occur for those holding equivalent licences	3		
Labour mobility	2.46	50	1.23
Removal of the need to hold multiple licences	0.08	100	0.08
Removal of the need to hold multiple licences – government	(0.07)	100	(0.07)
Introducing licensing of workers	(0.27)	0	0
Introducing licensing of business contractors	(0.12)	0	0
Increasing the number of contractor licensees	(0.09)	0	0
Consistent licence period (1 or 3 years)	1.19	0	0
Decreasing qualification requirements	2.71	0	0
Removing business training	0.94	0	0
Removing restricted split system licence in Victoria	(1.72)		
Removing requirement to hold a Certificate III in Mechanical Services in Victoria	5.34		
Removing duplicate testing	0.03	0	0
Removing 'fit and proper' tests	0.002	0	0
Removing experience requirement	0.23	0	0
Business value-add	2.48	٨	0.002 ^a
NOLA operational costs	(0.08)	0	0
Total ongoing impacts – net benefits	9.49		1.24
Transition impacts (\$ million)			
Time for licensees to understand reforms	(0.86)	25	.215
Business value add	(0.29)	۸	(0.07) ^b
NOLA - set up costs	(0.09)	0	0
National licence register - jurisdictional implementation	(0.12)	0	0
Government communications	(0.49)	25	(0.12)
Total transition Impacts	(1.85)		0.095

Potential impacts	National licensing option impacts (model A)	Likelihood of achieving national licensing benefits under AMR* (per cent)	AMR impacts
Other potential impacts not yet quantified			
Impacts on government compliance costs and associated administrative costs	Not quantified		Higher than NL
Costs and benefits of a register of disciplinary actions	Not quantified		Not applicable

^{* 0% -} No Impact - Where the likelihood of achieving a benefit of 0% is outlined, it is not expected that AMR would provide for the benefit to be delivered. For example, there would be no requirement for decreased qualifications under an unharmonised AMR system meaning that there would be no reduction of costs in this area:

25% - Very unlikely - Where the likelihood of achieving the same cost/benefit of 25% is outlined, it is considered very unlikely that AMR would provide for the any significant degree of the benefit or cost to be accrued. For example, the costs of communication would be significant less as the changes to the system would be minimal compared to the current mutual recognition arrangements;

50% - Unlikely = Where the likelihood of achieving a benefit of 50% is outlined, it is not expected that AMR would provide for half of the benefits/costs to be accrued but delivered. For example, the costing estimates that half of the benefit accruing from enhanced labour mobility would flow through under an unharmonised AMR system. This is because the regulated work and licence type would be continue to be whatever individual jurisdictions determine – it would not be harmonised or made consistent in any way. It would become the responsibility of the regulator and licence holder to understand the licensed work authorised by a licence issued by any jurisdiction as, unlike under existing mutual recognition, the licence would not be 'translated' into the regulatory terms of the jurisdiction of operation. It is expected that these complexities would continue to mitigate against labour mobility to a significant extent;

75% - Likely - Where the likelihood of achieving a benefit/cost of 75% is outlined, it is expected that AMR would provide for the much of the benefit to be delivered; and

100% - Full Impact - In these occasions, it is estimated that the same benefit/cost would flow regardless of the model being implemented. For example, under an unharmonised AMR system it is still envisaged that the need for multiple licenses will be eliminated (as it would with national licensing).

While labour mobility is an important objective of national licensing, the benefits derived from national licensing could also be partly achieved by automatic mutual recognition as it too would enhance the ability and attractiveness for some labour to flow where refrigeration and airconditioning services are most needed. The extent of the benefits accruing from automatic mutual recognition would be dependent on the percentage of licenses that are deemed to be equivalent across jurisdictions and the extent to which harmonisation of licensing requirements occurs.

However, national licensing provides the opportunity to implement the best reform.

A discussion of the merits of the automatic mutual recognition approach is presented in Chapter 2.

The potential transition costs of this option include:

- time for licence holders to understand changes in licensing arrangements (i.e. how automatic mutual recognition works)
- government communications costs

[^] Under AMR, business value add will only accrue for those impacts that are likely to occur under the AMR option.

^a The only ongoing impact likely to occur under AMR that leads to business value-add is 'Removal of the need to hold multiple licences'. This is the business value-add associated with that impact.

^b The only transition impact that leads to business value-add is 'Time for licensees to understand reforms'. As only 25 per cent of this impact is expected to be incurred under AMR, only 25 per cent of the associated business value-add would be incurred under the AMR option.

- government compliance costs, where regulators are required to change their compliance arrangements to ensure that they are able to regulate for new licence holders working in their jurisdiction under automatic licences (this is both a transition and an ongoing cost)
- the potential cost of harmonising any current aspects of licensing, where it is proposed under this option (to be determined by state and territory governments).

In order to fully quantify and assess the impacts under this option, further guidance from governments on option parameters and available data would be needed. For example, the following information would be needed:

- the proportion of current licensees who are working under licences that have an equivalent licence in other jurisdictions (or, alternatively, a means of estimating these proportions should be agreed with jurisdictions)
- information on the extent to which transition costs that have been estimated for national licensing may need adjusting to reflect differences in this option (as opposed to national licensing)
- information from jurisdictional regulators on the costs associated with additional compliance activities (such as an estimate of resource costs)
- information on the cost of the register of disciplinary actions, including information on the potential scale of this register, and how it may work with existing arrangements.

4.6 Summary of the costs and benefits by jurisdiction

The costs and benefits for each jurisdiction in terms of net present value over ten years (as at 1 July 2012) are summarised in Tables 4.35 to 4.37. Note that costs are represented in brackets.

4.6.1 New South Wales

Table 4.35: Costs and benefits of national licensing in New South Wales, net present value over ten years

NPV ten years (\$ million)	National licensing model A	National licensing model B	No licensing (except for the Commonwealth Arctick licence)
Transitional impacts	(0.81)	(0.81)	(0.08)
Time for licensees to understand reforms	(0.44)	(0.44)	-
Business value-add	(0.15)	(0.15)	-
Licensing – set-up costs	(0.05)	(0.05)	-
National licensing register – jurisdictional implementation	(0.02)	(0.02)	-
Government communications	(0.15)	(0.15)	(0.08)
Ongoing impacts	9.20	9.69	16.75
Removing licensing of workers (national licensing model B)	-	0.66	-
Removing licensing of contractors (no licensing except for the Commonwealth Arctick licence)	-	-	7.65
Removing the need to hold multiple licences	0.23	0.22	-
Removing the need to hold multiple licences – government	(0.24)	(0.23)	-
Consistent licence period (1, 3 or 5 years)	0.53	0.34	-
Removing 'fit and proper' from personal probity	0.53	0.34	-
Labour mobility	0.02	0.02	0.02
Business value-add	8.93	8.93	8.93
Licensing authority – operational	0.06	0.10	0.15

4.6.2 Victoria

Table 4.36: Costs and benefits of national licensing in Victoria, net present value over ten years

NPV ten years (\$ million)	National licensing model A	National licensing model B	No licensing (except for the Commonwealth Arctick licence)
Transitional impacts	(0.49)	(0.49)	(0.08)
Time for licensees to understand reforms	(0.20)	(0.20)	-
Business value-add	(0.07)	(0.07)	-
Licensing authority – set-up costs	(0.03)	(0.03)	-
National licensing register – jurisdictional implementation	(0.05)	(0.05)	-
Government communications	(0.15)	(0.15)	(0.08)
Ongoing impacts	11.17	18.67	31.49
Removing licensing of workers (national licensing model B	-	1.47	-
Removing licensing of contractors (no licensing except for the Commonwealth Arctick licence)	-	-	8.15
Introducing licensing of business contractors	(0.80)	(0.80)	-
Removing the need to hold multiple licences	0.15	0.15	-
Removing the need to hold multiple licences – government	(0.04)	(0.03)	-
Consistent licence period (1, 3 or 5 years)	3.86	3.50	-
Decrease qualification requirements	7.04	7.04	7.04
Removing business training	5.46	5.46	5.46
Removing restricted split system licence in Victoria	(11.20)	(6.45)	-
Removing requirement to hold a Certificate III in Mechanical Services in Victoria	0.23	0.23	0.23
Removing duplicate testing	0.01	0.01	0.01
Removing 'fit and proper' from personal probity	0.92	0.92	0.92
Removing experience requirement	4.45	4.45	4.45
Labour mobility	1.25	2.88	5.22
Business value-add	(0.17)	(0.17)	-
Licensing authority – operational	(0.49)	(0.49)	(0.08)

4.6.3 Queensland

 $\label{thm:costs} \textbf{Table 4.37: Costs and benefits of national licensing in Queensland, net present value over teny ears } \\$

NPV ten years (\$ million)	National licensing model A	National licensing model B	No licensing (except for the Commonwealth Arctick licence)
Transitional impacts	(0.42)	(0.42)	(0.08)
Time for licensees to understand reforms	(0.15)	(0.15)	-
Business value-add	(0.05)	(0.05)	-
Licensing authority – set-up costs	(0.02)	(0.02)	-
National licensing register – jurisdictional implementation	(0.05)	(0.05)	-
Government communications	(0.15)	(0.15)	(0.08)
Ongoing impacts	19.09	20.87	26.87
Removing licensing (no licensing except for the Commonwealth Arctick licence)	-	-	24.40
Introducing licensing of workers	(1.79)	-	-
Increasing the number of contractor licensees	(0.57)	(0.57)	-
Removing the need to hold multiple licences	0.15	0.14	-
Removing the need to hold multiple licences – government	(0.19)	(0.19)	-
Consistent licence period (1,3 or 5 years)	3.32	3.32	-
Decrease qualification requirements	10.63	10.63	10.63
Removing business training	0.65	0.65	0.65
Removing experience requirement	0.58	0.58	0.58
Labour mobility	2.77	2.77	2.77
Business value-add	3.64	3.64	3.66
Licensing authority – operational	(0.10)	(0.10)	-

5 Consultation

5.1 Overview of consultation process

The Council of Australian Governments (COAG) requires that all significant regulatory processes are developed in accordance with its principles for best practice. This includes thorough, wide-ranging and timely consultation with affected stakeholders. The purpose of consultation on the national licensing reform was to meet this requirement, by providing mechanisms for stakeholders in the refrigeration and air-conditioning occupation to consider the options developed for national licensing reform, and to comment on them.

A Consultation RIS outlining the policy proposal for the establishment of a national licensing system for the refrigeration and air-conditioning occupation was released on 15 August 2012 and published on the www.nola.gov.au website. Stakeholders, including state and territory governments, relevant national and state organisations, members of the Refrigeration and Air-conditioning Interim Advisory Committee (IAC), regulator working groups and those who had expressed interest in receiving information on the reforms through the NOLA website, were directly notified of the release of the Consultation RIS. Approximately 2,000 people were notified in this way.

The policy contained in the Consultation RIS was based on that developed by the Refrigeration and Air-conditioning IAC during a series of meetings which took place throughout 2010–11. The IAC comprised representatives from industry, employer and employee associations, the training sector, regulators, and the consumer advocacy sector. The Consultation RIS also reflected policy positions developed through the COAG National Licensing Steering Committee (the Steering Committee), which oversaw the policy process, and was comprised of representatives from state and territory government central agencies.

Draft national licensing legislation and regulations, including that required to implement the proposed reforms in relation to the refrigeration and air-conditioning occupation, was released on 14 September 2012 and was also part of the consultation process. The legislation was based on the policy positions developed by the IAC.

5.2 Public information sessions

Public information sessions concerning the Consultation RIS for the refrigeration and air-conditioning occupation were held during September 2012 in the three states that licence the occupation: New South Wales, Victoria and Queensland. In Western Australia and South Australia, where the occupation is not licensed, a small number of individuals presented their views while attending other occupational consultation sessions in Perth and Adelaide respectively. The information sessions were promoted through emails to those registered to receive information on the reforms, advertisements in key major metropolitan newspapers, and through the NOLA website at www.nola.gov.au. A total of 66 people attended the refrigeration and air-conditioning information sessions. Details of the locations and numbers of attendees are outlined in Table 5.1.

The information sessions provided an opportunity for the COAG National Licensing Taskforce (the Taskforce) to outline the proposed arrangements, answer questions on aspects of the reforms, and listen to views and comments from those attending. Representatives from key state and territory government agencies also attended and participated in the information sessions.

Table 5.1: Consultation sessions

Location	Date	Organisations present	Government representatives	Total attendees
Sydney	14 September 2012	 Australian Industry Group Brookfield Multiplex Services Building Professionals Board Coca-Cola Amatil Communication, Electrical and Plumbing Union Electrical Trade Union Grosvenor Engineering ISS Facility Services Leighton Contractors Mitsubishi Electric Australia Refrigeration and Air Conditioning Contractors Association Triple M Mechanical NSW Industry Training Advisory Bodies Canberra Institute of Technology TAFE Hunter 	 NSW Office of Fair Trading Department of Premier and Cabinet National Occupational Licensing Authority NSW regulators Australian Skills Quality Authority 	27
Melbourne	11 September 2012	 Air Conditioning and Mechanical Contractors Association of Australia Air Services Australia Australian Institute of Refrigeration, Airconditioning and Heating Australia Post Communication, Electrical and Plumbing Union 	 Plumbing Industry Commission (regulator) Energy Safety Victoria (regulator) National Occupational Licensing Authority Department of Treasury and Finance Department of Planning and Community Development 	20

Location	Date	Organisations present	Government representatives	Total attendees			
Brisbane ^a	21 September 2012	 IdentiTech Master Plumbers Association Victoria Rothfaze Pty Ltd Royal Melbourne Institute of Technology The Knight Alliance Australian Industry Group Australian Refrigeration Council Brisbane Refrigeration Coast to Coast Refrigeration and Airconditioning Pty Ltd Electrical Contractors Association General Air Con Services Greenslopes Hospital JP Tech Services Mitsubishi Heavy Industries Air-Conditioning Australia Pty Ltd NB Refrigeration Reclaim our Trade Trevor Judd Airconditioning 	 Queensland Treasury and Trade Department of Natural Resources and Mines Commonwealth Department of Sustainability, Environment, Water, Population and Communities 	17			
Perth	The refrigeration and air-conditioning occupation is not licensed in Western Australia However discussions were held with a single contractor representative and member of Reclaim our Trade on 21 September 2012.						
Adelaide	The refrigeration and air-conditioning occupation is not licensed in South Australia. However discussions were held with a representative from TAFE SA on 21 September 2012.						
Hobart	The refrigeration and air-conditioning occupation is not licensed in Tasmania						
Canberra	The refrig	eration and air-conditioning occupat	ion is not licensed in the Australia	n Capital			

Location	Date	Organisations present	Government representatives	Total attendees		
	Territory					
Darwin	The refrige	eration and air-conditioning occupati	on is not licensed in the Northern	Territory		

^a The Brisbane session was also webcast through the Queensland Treasury website.

5.3 Feedback on the Consultation RIS and Draft Legislation

Comments on the Consultation RIS and the draft legislation were possible from the release of the RIS on 13 August 2012 until 12 October 2012. Stakeholders were asked to provide feedback using an online survey, through a template based on the survey, or by any other written means.

The survey format (using the online Survey Monkey website) was developed by state and territory government representatives with input from the Taskforce, and sought to ensure feedback was received on all key issues of interest. Individuals were also free to comment on other issues as appropriate. The online survey was available for participants to use from the date of release of the Consultation RIS until the closing date for submissions of 12 October 2012.

The information sessions were attended by 66 people and 332 submissions (80 respondents using the online survey and 252 responding in written format) were received on the Consultation RIS. Many of these submissions were 'form template' submissions from particular areas or sectors of the refrigeration and air-conditioning industry. Details on the specific issues and views contained in these submissions are outlined in Chapter 3.

All submissions, with the exception of those identified by respondents as not for public release, are available online at www.nola.gov.au. A list of respondents is provided at Attachment B.

5.4 National Occupational Licensing Authority

Following the close of submissions, the National Occupational Licensing Authority (NOLA) convened an Interim Occupational Licensing Advisory Committee (Interim OLAC), to provide comments on the policy options outlined in the Consultation RIS. Membership of the Refrigeration and Airconditioning Interim OLAC comprised a range of industry representatives similar to that of the IAC.

The Interim OLAC provided advice to NOLA on where, from an industry perspective, amendments may be appropriate to ensure an effective national licensing system. NOLA also convened meetings of relevant state and territory regulators to consider the issues raised by the Interim OLACs.

5.5 Other consultation

A series of meetings between senior jurisdictional officials and the Commonwealth were convened to attempt to resolve issues which were of particular concern to certain states and territories. Industry representatives also met with Senator the Hon Penny Wong, Minister for Finance and Deregulation and Senator the Hon Chris Evans, the then Minister for Tertiary Education, Skills, Science and Research, to express their views on national licensing.

5.6 Submission summary

332 submissions were received on the Refrigeration and Air-conditioning Consultation RIS. A high number of 'form template' submission responses were received from four main sources:

- 1. The Reclaim Our Trade group, based in Queensland (13 responses);
- 2. Form template submissions originating from the Plumbing Industry Commission in Victoria (180 responses);
- The Master Plumbers and Mechanical Services Association of Australia, Victoria (27 responses);
- 4. The Master Plumbers and Mechanical Services Association of Australia, Victoria, these placed more emphasis on plumbing than refrigeration and air-conditioning (3 responses).

Of the total responses (332) approximately 67 per cent originated from Victoria, 13 per cent originated from Queensland, 4 per cent from New South Wales, 4 per cent from Western Australia, 3 per cent from South Australia, 0.5 per cent, from Tasmania, 1 per cent from the Australian Capital Territory and 0.5 per cent from the Northern Territory. Approximately 7 per cent of submissions either gave a national perspective or did not identify their location.

Of the 252 hard copy responses received, only 13 per cent did not form part of a more widely organised response.

5.7 Overview of selected stakeholder positions

Consultation was undertaken with the IAC, the Steering Committee, industry, regulators, employers, employees and the general public.

Table 5.2 broadly outlines stakeholder support for the options considered in the Consultation RIS (with some or little concern about aspects of that model).

Table 5.2: Selected stakeholder positions in relation to the various options

Key Stakeholder	Option 1:	Option 2: Natio	onal licensing	Option 3:	Option 4:
	No licensing (except for Commonwealth Arctick licence)	Model A	Model B	Automatic mutual recognition	Status quo
Refrigeration and air-conditioning Industry Advisory Committee	not supported	support	not supported	not supported	not supported
Victorian Plumbing industry Commission	not supported	not supported	not supported	support	not supported
Master Plumbers and Mechanical Services Association of Australia	not supported	not supported overall but would support if national licensing proceeds	not supported	support	not supported
Communications, Electrical and Plumbing Union (Plumbing Division)	not supported	supported if national licensing proceeds	not supported	support	not supported
Communications, Electrical and Plumbing Union (Electrical division)	not supported	support	not supported	not supported	not supported

6 Conclusion and recommendation

6.1 Recommendation

The COAG guidelines state that in providing advice for decision makers, the option that generates the greatest net benefit for the community, taking into account all the impacts, should be presented as the preferred option. These guidelines make the commitment to establish and maintain effective arrangements to maximise the efficiency of new and amended regulation and to avoid unnecessary compliance costs and restrictions on competition. Decisions about whether regulatory action is in the public interest should be informed by an assessment of the effectiveness of the proposed action in meeting the identified objectives.

The preferred model is that selected after balanced consideration of all factors: it focuses on the economic cost and benefit but also takes into account appropriate risks and the impact on existing industry practices, competition impacts, including those on niche markets.

No licensing (except for the Commonwealth Arctick licence) option is the preferred option for the refrigeration and air-conditioning occupations. No licensing has the highest net benefit of all options with a net ongoing benefit of \$11.52 million per annum. This option meets COAG's objectives for labour mobility, and ensuring that licensing arrangements are effective and proportional to that required for consumer protection, and worker and public health and safety, while ensuring economic efficiency and equity of access.

In the five jurisdictions that do not licence the occupation there has been no evidence of market failure or consumer safety or protection issues to require the introduction licensing. The majority of stakeholders did not support the no licensing option. This option was not seen as addressing the risks to consumer health and safety or the conduct and compliance issues such as the penalties for offences were not as strong as current state offences. This is despite no evidence being presented of any such risks or issues. This option was not perceived to address the risks to consumer health and safety or the conduct and compliance issues – for example, the penalties for offences were not as robust as current state offences.

National licensing Model A was developed with advice from the refrigeration and air-conditioning Interim Advisory Committee. It had an ongoing net benefit of National licensing Model A of \$7.77 million per annum, the third highest net benefit of the options investigated. It does represent a benefit to the community, industry and governments, taking all impacts into account and addresses the risks identified for the industry. This model would, however, introduce new regulatory burden in Victoria and Queensland

National licensing model B, proposed by Queensland, represents the status quo in that jurisdiction has the second highest benefits of the options investigated, and the highest of the national licensing options, with an ongoing net benefit of \$8.55 million per annum. This model was also not supported at all by the majority of stakeholders at it was not seen to address the perceived risks to consumer health and safety despite an absence of any evidence to support this view being presented. This model was not supported by New South Wales or Victoria because they do not approve of a contractor licence being in place where there was no occupational or 'worker' licence. Despite being deregulatory overall, this model would increase the regulatory burden in Victoria.

The automatic mutual recognition model is not the preferred model as, although it has the potential to provide for enhanced labour mobility, with lower immediate transition costs, the complexities of operating such a system mean that implementation would be extremely complex and would require close cooperation and coordination at all levels of policy development, regulation setting and compliance. Further under the automatic mutual recognition model there are insufficient details provided around the legislative, governance and IT arrangements to support the scheme. It is also unclear about who would have responsibility for maintaining the scheme, including the proposed limited national licensing register and how unilateral changes to licensing arrangements would be incorporated under the scheme.

Automatic mutual recognition would deliver fewer benefits and would give rise to a more complex, less transparent and more high-risk environment with far less opportunity for reduced regulation and a reduced prospect for the longevity of the reform over time compared with the preferred model, no licensing, or the alternative model, national licensing model A.

6.2 Overview of the preferred option – no licensing except for the Commonwealth Arctick licence)

6.2.1 Overview of no licensing (except for the Commonwealth Arctick licence)

The licence categories under the no licensing option are those that exist under Arctick are:

Table 6.1: Commonwealth Arctick categories of licence and regulated work for the refrigeration and air-conditioning occupation

Licence	Regulated work					
Full refrigeration and air- conditioning licence	To handle a refrigerant for any work in the refrigeration and air-conditionin industry, other than the automotive industry.					
Automotive Air conditioning licence (2 years)	To handle a refrigerant for any work on air-conditioning equipment fitted t the cabin of a motor vehicle.					
Restricted heat pump (split system) installation and decommissioning licence	To handle a refrigerant for the installation and decommissioning of any of the following: a single-head split system air conditioner of less than 18kW a 2-part hot water heat pump of less than 18kW a 2-part swimming pool heat pump of less than 18kW.					
Restricted domestic refrigeration and air-conditioning appliance licence	To handle a refrigerant for either or both of the following: any work on domestic refrigeration or air-conditioning equipment any work on commercial stand-alone refrigeration equipment.					
Trainee licence to handle a refrigerant while undertaking training	To handle a refrigerant while undertaking training and/or assessment in a classroom setting and at your work place under supervision. The supervisor must be the holder of a licence that entitles them to engage in work for which the licensee is being trained. This licence is valid for the period of training, which can be up to one year.					
Trainee classroom licence	To handle refrigerant in a classroom setting only. The licensee cannot handle refrigerant outside the classroom setting. This licence is valid for a period of training which can be up to one year.					

Licence	Regulated work
Aviation transitional licence	To handle a refrigerant for any work undertaken on air-conditioning equipment on aircraft.
Transport refrigeration licence	To handle a refrigerant for any work on mobile refrigeration systems other than air-conditioning systems in the cabin of a motor vehicle.
Refrigerant handler – transitional licence	To handle a refrigerant while decanting cylinders.
Restricted refrigerant – recoverer's licence	To recover and handle refrigerant while decommissioning stationary and automotive refrigeration and air-conditioning equipment.

The full refrigeration and air-conditioning licence (shaded in the table above) is the only licence to be considered when comparing to national licensing.

Although the scope of regulated work for the Commonwealth Arctick licence centres on the handling of refrigerants and thus differs from the proposed regulated work under national licensing, the Commonwealth Arctick licence covers all aspects of installation and maintenance that would be considered regulated work under national licensing. It is an offence under section 111 of the *Ozone Protection and Synthetic Greenhouse Gas Regulations 1995* to work on refrigeration and airconditioning equipment, including 'manufacturing, installing, commissioning, servicing or maintaining refrigeration and air-conditioning equipment, irrespective of whether or not refrigerant is present' and 'decommissioning or disposing of refrigeration and air-conditioning equipment where refrigerant is present' without holding the relevant Commonwealth Arctick licence.

Commonwealth Arctick licence qualifications

The qualifications required to obtain the Commonwealth Arctick licences are shown in Table 6.2. The shaded qualifications are the same as those that are required to obtain the proposed national refrigeration and air-conditioning licence and the refrigeration and air-conditioning licence — restricted to heat pump and split system installation. This further highlights the duplicative nature of regulation in those jurisdictions that licence the occupation.

Table 6.2: Commonwealth Arctick qualifications

Licence category	Qualification				
Refrigeration and air-conditioning licence	Successful completion of an apprenticeship as a refrigeration				
	mechanic, e.g. Proficiency Certificate; or				
	Trade Recognition Certificate: Refrigeration Mechanic; or				
	MEM30205 Certificate III in Engineering Mechanical Trade or				
	MEM30298 Certificate III in Engineering – Trade (this is superseded by MEM30205 above); or				
	UEE32211 Certificate III in Refrigeration and Air-conditioning; or				
	UTE30999 Certificate III in Electrotechnology Refrigeration and Airconditioning (this is superseded by UEE32211 above); or				
	Trade Certificate with a Trade Outcome of Refrigeration Mechanic				
	and evidence of industry experience				
Refrigeration and air-conditioning licence:	MEM20105 Certificate II in Engineering; or				
restricted to heat pump and split system installation	UEE20111 Certificate II in Split Air-conditioning and Heat Pump Systems; or				
	40488SA Certificate II in Split System Air-conditioning (non-current status).				

Licence category	Qualification			
Restricted domestic refrigeration and airconditioning appliance licence (2 years)	MEM20105 Certificate II in Engineering; or			
	UEE21810 Certificate II in Appliance Servicing-Refrigerants; or			
	UEE30510 Certificate III in Appliance Servicing (superseded by UEE321111 Certificate III in Appliance Service); or			
	UEE30507 Certificate III in Appliance Servicing; or			
	UEE21807 Certificate II in Appliance Servicing-Refrigerants; or			
	UTE20599 Certificate II in Electrotechnology Servicing (superseded); or			
	UTE20504 Certificate II in Electrotechnology Servicing			

Note: Shaded qualifications represent the current requirement.

Unshaded qualifications represent a previous requirement.

During the policy development process, it was agreed that completion of an apprenticeship leading to a Certificate III qualification is generally considered to provide the levels of competency required to operate unsupervised. This remains under the no licensing option.

The Interim Advisory Committee members noted the importance of ensuring that training is properly delivered and assessed, and the role of the Australian Skills Quality Authority in ensuring that this occurs. Additional testing of applicants who have already been found to be competent against the units in the relevant training package represents duplication of effort by government and is inconsistent with COAG's position that 'regulators will recognise the VET qualification or statement of attainment as meeting all of the skill related eligibility requirements¹⁵ for gaining a licence in relevant regulated occupations'.

The qualifications for the restricted heat pump and split system installation licence reflect the requirements for the Commonwealth restricted split system refrigerant handling licence.

The Commonwealth Arctick licence covers only the licensing of those who handle fluorocarbons; nevertheless, the qualifications needed to obtain the Arctick licence are exactly the same as those proposed for national licensing. Other qualifications can be accepted to obtain the Commonwealth Arctick licence, and these qualifications may differ from current jurisdictional requirements. It is a misconception that holders of a Commonwealth Arctick licence do not have the same knowledge and skills as proposed licence holders under national licensing. Although the scope of work of the Commonwealth Arctick licence centres on the handling of refrigerants, under section 111 of the Ozone Protection and Synthetic Greenhouse Gas Management Regulations 1995 (Cwlth), it is an offence to work on refrigeration and air-conditioning equipment, including 'manufacturing, installing, commissioning, servicing or maintaining refrigeration and air-conditioning equipment, irrespective of whether or not refrigerant is present' and 'decommissioning or disposing of refrigeration and air-conditioning equipment where refrigerant is present' without holding the relevant Arctick licence.

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Skills-related eligibility requirements include those related to competency standards, qualifications and/or industry experience requirements.

6.3 Overview of the alternative approach for the national licensing of refrigeration and air-conditioning occupations - model A

Whilst not being the option has the highest net benefit, national licensing model A is considered a viable alternative model as it has significant support from industry. It also achieves substantial economic benefits to the community although not to the same extent as the no licensing model.

6.3.1 Licence categories

- refrigeration and air-conditioning contractor
- refrigeration and air-conditioning licence
- provisional refrigeration and air-conditioning licence (refrigeration and air-conditioning category only)

Table 6.3: National licence categories across jurisdictions

Proposed national licensing	NSW	Vic	Qld	SA	WA	Tas	ACT	NT			
Contractor licence											
Refrigeration and air- conditioning contractor licence	✓	✓	✓								
Full licence											
Refrigeration and air- conditioning	✓	✓	✓								
Provisional licence											
Refrigeration and air- conditioning	✓	√	√								
Commonwealth licence (compulsory requirement for those working with ozone depleting refrigerants)											
Commonwealth Arctick licence	✓	✓	✓	✓	✓	✓	✓	✓			

Note: Shaded area denotes that national licensing will occur in that jurisdiction for the occupation.

^{✓:} denotes that national licensing will occur in that jurisdiction for the occupation

6.3.2 Scope of regulated work

Table 6.4: Regulated work for the refrigeration and air-conditioning categories

Category	Regulated work
Refrigeration and air-conditioning licence	Refrigeration and air-conditioning work means installing, replacing, repairing, altering, maintaining, commissioning or decommissioning refrigeration and air-conditioning equipment. Refrigeration and air-conditioning work includes decanting the refrigerant from
	refrigeration and air-conditioning equipment.

Refrigeration and air-conditioning work does not include the following:

- connecting or disconnecting refrigeration and air-conditioning equipment from a water supply, other than disconnecting the equipment from a water supply at an isolating valve adjacent to a mechanical component of the equipment
- · installing refrigeration and air-conditioning equipment to the extent that the work involves structural building work
- · installing, replacing, repairing, altering or maintaining self-contained single phase plug-in domestic refrigeration units
- installing, replacing, repairing, altering or maintaining self-contained single phase plug-in refrigeration and airconditioning units for use in rooms and vehicles
- installing, replacing, repairing, altering or maintaining air-handling and water systems in cooling towers
- the installation, by manufacturers of vehicles or containers used for passenger or product transport, of refrigeration and air-conditioning units during the manufacture of the vehicles or containers
- work associated with the manufacture of refrigeration and air-conditioning units
- installing, replacing, repairing, altering or maintaining refrigeration or air-conditioning equipment on:
 - a ship registered in Australia
 - an offshore oil platform.

Ship registered in Australia means a ship registered in Australia within the meaning of section 7A of the Navigation Act 1912 (Cwlth) other than a recreational vessel.

6.3.3 Nominees

The National Law provides that when a body corporate, a person in their capacity as a member of a partnership, or an individual who applies for a contractor licence, who does not personally hold an occupational licence that corresponds to that contractor licence, they will be required to nominate a nominee who has the relevant occupational licence to undertake the work. This requirement addresses the issue of a business company, in itself, being unable to possess skills and expertise or relevant occupational licence.

Table 6.5: Contractor (business) licences and the applicable technical nominee

Contractor (business) licence	Technical nominee
Refrigeration and air-conditioning contractor licence	Refrigeration and air-conditioning licence

6.3.4 Exemptions

Table 6.6: Proposed exemptions

Policy description of proposed exemption	Exempt from licence category
An individual under a contract of employment and training, or as a student undertaking competency-based training or assessment, for the purpose of gaining qualifications necessary for obtaining a licence, and is under the supervision of an individual who is licensed to carry out the regulated work without supervision	All except a contractor
A person who is the holder of a prescribed authority (by whatever name called) and who, as part of carrying on business under that authority, contracts, for the provision of that regulated work other than under a contract of employment, with another person licenced to carry out that work.	All contractors

The National Law also provides that national regulations can be made to enable individual jurisdictions to make exemptions for individuals (may also apply to a class of persons) from the requirement to hold a licence to carry out the prescribed refrigeration and air-conditioning work in accordance with guidelines issued by the licensing authority from time to time.

6.3.5 Non-skills-based eligibility requirements

Relevant persons

The National Law, and the Amendment Bill for the National Law, provides for the identification of a relevant person(s) for a body corporate or a person who is a member of a partnership and that they will be subject to personal and financial probity checks.

Relevant persons for the refrigeration and air-conditioning occupations, for a body corporate, will be each director of the body corporate (as defined in the *Corporations Act 2001 (Cwlth)*), including any other individual who is in effective control of the business and ,for a member of a partnership, each member of the partnership.

Personal probity eligibility requirements

Table 6.7: Personal probity requirements

Type of applicant	Role	Personal probity requirement
Individual or body	Contractor	Licensing Authority must have regard to:
corporate		Matters relating to criminal history, including:
		offences relating to dishonesty
		offences relating to misleading or deceptive conduct
		offences relating to a person's obligations under a law relating to occupational health and safety.
		Matters relating to carrying out regulated work; engaging others to carry out regulated work, or advertising or offering to carry out regulated work unless the person carrying out the work is licensed or exempt including:
		within the previous 5 years, been convicted of an offence under section 9,10 or 11 of the Law or a provision of a corresponding prior Act that corresponds to section 9, 10, or 11 of the Law
		Matters relating to business conduct. This means any action taken against a person under the <i>Corporations Act 2001</i> in relation to the following:
		failure to exercise powers with care and diligence
		failure to exercise powers in good faith and for a proper purpose
		misuse of position to gain advantage or cause detriment to a company
		misuse of information obtained by virtue of the person's position to gain advantage or to cause detriment to a company
		breach of the procedures under that Act when giving a financial benefit to a related party of a company
		failure to comply with financial reporting requirements under that Act
		breach of the duty not to trade insolvent.
Individual	Employee/occupational	Licensing Authority must have regard to:
		within the previous 5 years, been convicted of an offence under section 9,10 or 11 of the Law or a provision of a corresponding prior Act that corresponds to section 9, 10, or 11 of the Law

Table 6.8: Personal probity requirements for other persons

Type of applicant	Other person who is required to have a personal probity check	Personal probity requirement
Body corporate applying for a contractor's licence	Relevant persons for a body corporate	Licensing Authority must have regard to: Matters relating to criminal history, including: offences relating to dishonesty offences relating to misleading or deceptive conduct offences relating to a person's obligations under a law relating to occupational health and safety. Matters relating to carrying out regulated work; engaging others to carry out regulated work, or advertising or offering to carry out regulated work unless the person carrying out the work is licensed or exempt including: within the previous 5 years, been convicted of an offence under section 9,10 or 11 of the Law or a provision of a corresponding prior Act that corresponds to section 9, 10, or 11 of the Law Matters relating to business conduct. This means any action taken against a person under the <i>Corporations Act 2001</i> in relation to the following: failure to exercise powers with care and diligence failure to exercise powers in good faith and for a proper purpose misuse of position to gain advantage or cause detriment to a company misuse of information obtained by virtue of the person's position to gain advantage or to cause detriment to a company breach of the procedures under that Act when giving a financial benefit to a related party of a company failure to comply with financial reporting requirements under
		that Act • breach of the duty not to trade insolvent.
Individual or body corporate who is a member of a partnership	Relevant person for a partnership	Licensing Authority must have regard to: Matters relating to criminal history, including: offences relating to dishonesty offences relating to misleading or deceptive conduct offences relating to a person's obligations under a law relating to occupational health and safety. Matters relating to carrying out regulated work; engaging others to carry out regulated work, or advertising or offering to carry out regulated work unless the person carrying out the work is licensed or exempt including: within the previous 5 years, been convicted of an offence under section 9,10 or 11 of the Law or a provision of a corresponding prior Act that corresponds to section 9, 10, or 11 of the Law Matters relating to business conduct. This means any action taken against a person under the <i>Corporations Act 2001</i> in relation to the following: failure to exercise powers with care and diligence

Type of applicant	Other person who is required to have a personal probity check	Personal probity requirement
		purpose
		misuse of position to gain advantage or cause detriment to a company
		misuse of information obtained by virtue of the person's position to gain advantage or to cause detriment to a company
		breach of the procedures under that Act when giving a financial benefit to a related party of a company
		failure to comply with financial reporting requirements under that Act
		breach of the duty not to trade insolvent.

Proposed financial probity eligibility requirements

Table 6.9: Financial probity requirements

Type of applicant	Role (or licence category)	Financial probity requirement
Individual	Licensee	Licensing Authority must have regard to whether the individual has failed to pay a penalty, fine or other amount ordered by a court or tribunal in relation to the occupation.
Individuals Person acting in the person's capacity as a member of a partnership Relevant persons for a body corporate or partnership Body corporate	Contractor	 Licensing Authority must have regard to: whether the person is bankrupt, insolvent, has compounded with creditors, entered into a compromise or scheme of arrangement with creditors or otherwise applied to take the benefit of any law for the relief of bankrupt and insolvent debtors. whether the person has within the last five years been a relevant person for a another person who, during that five-year period was bankrupt, insolvent, compounded with creditors or otherwise applied to take the benefit of any law for the relief of bankruptcy or insolvent debtors. whether the person, that is a body corporate or a member of a partnership, a relevant person for the body corporate or partnership is bankrupt, insolvent, has compounded with creditors, entered into a compromise or scheme of
		 arrangement with creditors or otherwise applied to take benefit of any law for the relief of bankrupt or insolvent debtors. whether the person has failed to pay a penalty, fine or other amount ordered by a court or tribunal in relation to the occupation.

Table 3.10: Financial probity requirements for other persons

Type of applicant	Other person who is required to have a financial probity check	Financial probity requirement
Body corporate applying for a contractor's licence or body corporate who is a member of a partnership	Relevant person for a body corporate or partnership	• whether a relevant person is bankrupt, insolvent, has compounded with creditors, entered into a compromise or scheme of arrangement with creditors or otherwise applied to take benefit of any law for the relief of bankrupt or insolvent debtors.

6.3.6 Qualification-based eligibility requirements

 $\label{thm:condition} \textbf{Table 6.11: Proposed entry-level qualifications for the refrigeration and air-conditioning occupation}$

Licence category	Qualification
Licence category	Qualification
Refrigeration and air-	UEE07 Electrotechnology Training Package
conditioning licence	UEE32211 Certificate III in Air-conditioning and Refrigeration
	OR
	MEM05 Metal and Engineering Training Package
	MEM30205 Certificate III in Engineering – Mechanical Trade including the following units of competency:
	MEM05006C Perform brazing and/or silver soldering
	MEM09002B Interpret technical drawing
	MEM10002B Terminate and connect electrical wiring
	MEM10009B Install refrigeration and air-conditioning plant and equipment
	MEM10010B Install pipework and pipework assemblies
	MEM12002B Perform electrical/electronic measurement
	MEM12023A Perform engineering measurements
	MEM18001C Use hand tools
	MEM18002B Use power tools/hand held operations
	MEM18049C Disconnect/reconnect fixed wired equipment up to 1,000 volts a.c./1,500 volts d.c.
	MEM18055B Dismantle, replace and assemble engineering components
	MEM18086B Test, recover, evacuate and charge refrigeration systems
	MEM18087B Service and repair domestic and light commercial refrigeration and airconditioning equipment
	MEM18088B Maintain and repair commercial air-conditioning systems and components
	MEM18092B Maintain and repair commercial and/or industrial refrigeration and/or airconditioning controls
	MEM18090B Maintain and repair industrial refrigeration systems and components
	MEM18095A Maintain and repair cooling towers/evaporative condensers and associated equipment
	MEM18096A Maintain, repair/replace and adjust refrigerant flow controls and associated equipment
Provisional refrigeration and air-	UEE07 Electrotechnology Training Package
conditioning licence	An Offshore Technical Skills Record ^a assessed against

Licence category	Qualification	
	UEE32211 Certificate III in Air-conditioning and Refrigeration	
	OR	
	MEM05 – Metal and Engineering Training Package	
	An Offshore Technical Skills Record ^a assessed against	
	MEM30205 Certificate III in Engineering – Mechanical Trade including the following units of competency:	
	MEM05006C Perform brazing and/or silver soldering	
	MEM09002B Interpret technical drawing	
	MEM10002B Terminate and connect electrical wiring	
	MEM10009B Install refrigeration and air-conditioning plant and equipment	
	MEM10010B Install pipework and pipework assemblies	
	MEM12002B Perform electrical/electronic measurement	
	MEM12023A Perform engineering measurements	
	MEM18001C Use hand tools	
	MEM18002B Use power tools/hand held operations	
	MEM18049C Disconnect/reconnect fixed wired equipment up to 1,000 volts a.c./1,500 volts d.c.	
	MEM18055B Dismantle, replace and assemble engineering components	
	MEM18086B Test, recover, evacuate and charge refrigeration systems	
	MEM18087B Service and repair domestic and light commercial refrigeration and airconditioning equipment	
	MEM18088B Maintain and repair commercial air-conditioning systems and components	
	MEM18092B Maintain and repair commercial and/or industrial refrigeration and/or airconditioning controls	
	MEM18090B Maintain and repair industrial refrigeration systems and components	
	MEM18095A Maintain and repair cooling towers/evaporative condensers and associated equipment	
	MEM18096A Maintain, repair/replace and adjust refrigerant flow controls and associated equipment	

^a An Offshore Technical Skills Record (OTSR) is issued to overseas applicants who have been assessed as holding a certain level of competence to commence work in Australia pending training in local requirements. Migrants who have had their skills and qualifications assessed against the Australian standards would be entitled to hold to an entry-level provisional licence in that trade (subject to meeting any non-skills requirements). The OTSR would also detail the gap training the applicant will need to undertake when they get to Australia.

6.3.7 Experience requirements

No additional requirement for a period of experience should be imposed as a licence eligibility requirement, following completion of an apprenticeship or in order to progress between the different levels of full licence and contractor.

6.3.8 Additional testing

No additional testing will apply to applicants who have obtained the appropriate qualification for a licence.

6.3.9 Licence period

A choice of one, three or five year licence period, provides a flexible approach which best meets the needs of individual licence holders.

7 Implementation

7.1 Implementation of preferred option – no licensing

Should the Standing Council for Federal Financial Relations (SCFFR) agree to the no licensing (with the exception of the Arctick licence) model, the states and territories that licence this occupation will repeal the relevant aspects of their current laws regarding licensing arrangements for the refrigeration and air-conditioning occupation.

The jurisdictions that currently license this occupation will be responsible for developing processes for notifying their existing licensees of this change, its date of effect, and the implications for them.

7.2 Implementation of national licensing (alternative model)

National licensing would be implemented for the first-wave occupations, including refrigeration and air-conditioning should the alternative model be selected rather than the preferred model, following agreement by the Standing Council for Federal Financial Relations (SCFFR). Its introduction would necessitate a number of structural and administrative changes to existing licensing arrangements.

A transition strategy is being developed, which includes the preparation of revised operational guidelines for the regulatory agencies involved, communications about the reform to regulatory staff, licensees and the wider public and agreed processes by which existing licensees (current or otherwise) and those in training for a licence are deemed across to the new system.

The National Occupational Licensing Authority (NOLA) was established in 2012 as the central body responsible for administration and policy and will be responsible for the implementation of national licensing.

Under the *Occupational Licensing National Law Act 2010* (the National Law), NOLA will delegate its responsibility for the operation of licensing services to nominated regulators in each state or territory that has adopted the National Law.

To assist with the implementation phase, NOLA is establishing Occupational Licensing Advisory Committees (OLACs) and Regulator Working Groups (RWGs) for each licensed occupation. The OLACs will be made up of representatives from industry, unions and skills councils, as well as regulators and consumer groups.

It should be noted that national licensing will not encompass the standards and behaviour (conduct) of licensees once they have obtained a licence. These matters, together with compliance and enforcement, will remain the responsibility of states and territories.

NOLA will work with jurisdictions to achieve a smooth transition to national licensing. This will involve:

- coordination and assistance with the development of consistent transitional provisions for jurisdictional legislation the transitional arrangements will cover such issues as:
 - deeming current licence holders into national licensing

- deeming administrative transactions, disciplinary/court processes and actions initiated before national licensing began
- transitioning suspended and disqualified licensees
- eligibility for those who initiated or completed training for a licence equivalent to a national licence before national licensing began
- restoration of expired licences
- eligibility for those in training for a restricted licence that will no longer exist under national licensing
- other implementation considerations such as the availability of relevant licensee data held by jurisdictional regulators in preparation for the commencement date, which might otherwise be restricted by jurisdictional privacy laws
- development of clear delegation instruments for jurisdictional regulators service agreements will be used to establish consistent licence requirements and service delivery standards for national licensing arrangements across jurisdictions
- development of clear operational procedures for jurisdictional regulator staff to ensure that the system is implemented consistently across jurisdictions and occupations
- development of standardised tools, forms and licence formats for use by jurisdictional regulators
- provision of training and ongoing support for jurisdictional regulator staff on new requirements, national business rules and business processes
- implementation of the national licensing register across each of the relevant jurisdictional regulators as their systems become compliant with national licensing and they can interface with the national register. The national licensing register will include prescribed information about licensees and former licensees for the licensed occupations. Where it can be justified NOLA aims to minimise the overall net cost of implementation by providing assistance and products in situations where otherwise there might be a duplication of effort by each jurisdiction. For example, it is recognised that each regulator has the challenge of data harmonisation before their data can be loaded into the national licensing register, and there will be areas of commonality where assistance from NOLA can potentially save time, effort and cost.
- development of a range of communication tools to provide information to licensees and
 other stakeholders of changes which may affect them once the new system is
 implemented. These tools include direct communications (letters/emails), meetings with
 licensees and/or industry groups, website content and social media, fact sheets, brochures
 and a public information campaign.

7.3 Key steps in implementation

To address potential concerns of existing licensees at a time of change, the following arrangements have been developed surrounding how licensees will be notified of their national licence, the time frames to apply to the issue and use of those licences, and what they can expect from the new national licence numbering system:

7.3.1 Notification

Prior to the commencement of national licensing for refrigeration and air-conditioning occupations, licensees will be contacted with advice on the impending changes and will be asked to provide information concerning their primary jurisdiction. Subsequently jurisdictional regulators will advise licensees by letter of the national licence they will hold following commencement of the system. Licensees will have the opportunity to discuss any concerns they may have about their proposed national licence. It should be noted that current state and territory licences will be considered national licences when national licensing commences for the refrigeration and air-conditioning occupation.

7.3.2 Issuing of new national licence documentation

It is proposed that there will be an agreed transitional period, yet to be determined, during which licensees can use either a jurisdictional or national licence number. After this time all licensees would be required to use their national licence number for identification purposes. The manner of how a licensee can advertise will be covered under existing jurisdictional conduct requirements.

A new national licence numbering scheme is proposed where a unique national licence number would be assigned to each licensee that transitions to national licensing and to each new licensee after the system commences. The national system would identify each entity once only in the licensing database. It is also proposed that an individual, persons in a partnership or company should be able to hold multiple occupational licence categories under this single national licence number.

The proposed national licensing register would have the capacity to search for a licensee's new national licence number and all previously generated licence numbers.

It is proposed that there will be an agreed transitional period, yet to be determined, during which licensees can use either a jurisdictional or national licence number. After this time all licensees would be required to use their national licence number for identification purposes. The manner of how a licensee can advertise will be covered under existing jurisdictional conduct requirements.

7.3.3 Format of licence documentation

A combination of cards and certificates are currently issued by the jurisdictions. It was observed that the quality of cards and certificates varies greatly between jurisdictions. Commonly for property licensees only a certificate is produced. Cards for the other occupations varied greatly, ranging from laminated cardboard to high-quality cards produced to a similar standard to a driver's licence with photographic identification.

The National Law allows for an approved form of a national licence. One option proposed is that the licensing authority or its delegates (existing jurisdictional regulators) would issue:

- a licence card (similar to a driver's licence in size and content) for identification purposes when engaging with members of the public, employers or regulators
- a licence certificate to corporate entities.

Currently most jurisdictions, for some of the occupations, can issue a licence card with a photo. For example, Victoria, Queensland and the Northern Territory issue licence cards with photos for the plumbing occupations only. South Australia and Tasmania issue them to all the trade occupations. However, under national licensing the licensing authority would set the minimum requirements for standard national licence documents and jurisdictions would be required to issue national licences that comply with the requirements.

Note that the inclusion of photo identification on an individual's licence card would probably increase the cost of a licence where it is not currently provided by state-based regulators. It is possible that the cost of a photo licence could be minimised with the economy of scale of all participating jurisdictions.

7.4 Communication strategy for national licensing

Consultation about national licensing has taken place over several years with a range of stakeholders including state and territory governments, industry, employer and employee representatives and internal working groups.

As with any change to regulations, a communication awareness campaign will need to be undertaken to ensure licensees, consumers and other stakeholders are informed of changes that may affect them once the new system is implemented.

There should be two levels of an awareness campaign for national licensing; one at a jurisdictional level and one at a national level.

A jurisdictional campaign could include the following activities:

- direct communications (letters/emails)
- metropolitan and regional meetings with licensees
- website content and social media
- temporary call centre staffing
- public information campaign
- industry and public campaign management.

An estimated cost, drawing on a Victorian campaign of a similar scale to that suggested above, is approximately \$300,000 to \$350,000, and is based on approximately 22,000 licensees. The impact

analysis contained in this Decision RIS includes a qualitative estimate of the communication costs for governments during the transition period.

At a national level, NOLA would assist with the communication process by ensuring consistency of messaging through the **www.nola.gov.au** website, media releases and other media and social avenues. The licensing authority's board and the chief executive officer will consult with:

- ministers and governments
- business and industries
- other peak bodies, including employee and employer associations.

7.5 Review

The SCFFR will initiate an independent public review of the operation of the national licensing system, including the legislation establishing the system, in accordance with the guidelines in the 2009 Intergovernmental Agreement for a National Licensing System for Specified Occupations. It is envisaged that the effectiveness of the NOLS reforms will be measured in a number of ways. These include assessment of the impact of NOLS on:

- labour mobility for nationally licensed occupations;
- administrative burdens on national licence holders;
- the consistency in regulatory requirements between jurisdictions for NOLS occupations; and
- deregulatory benefits for businesses and consumers.

The review will take place no earlier than five years from the commencement of the national licensing system and every 10 years thereafter.

Attachment A – Overview of sector and current licence requirements

The refrigeration and air-conditioning industry primarily involves the installation, maintenance and repair of refrigeration, air-conditioning and heating equipment in residential, commercial and industrial buildings and the installation of air-conditioning duct work. The industry generated revenue of \$6.8 billion in 2011–12. Although revenue has declined over a five-year period through to 2012–13 due to a struggling commercial and residential construction sector, there has been some reprieve through increased industry revenue generated from maintenance and repair work, making it less vulnerable to cyclical fluctuations in the broader economy. Despite this, the industry does remain heavily reliant on new building construction, especially for the installation sector. Export earnings, mainly comprising repatriated profits, currently account for \$20 million of annual revenue or 0.4 per cent. To

The main output of the industry is the provision of highly skilled labour, particularly in terms of installation, maintenance and repair of fixtures and fittings. Installation accounts for approximately 65 per cent of industry output, and the remainder is dominated by maintenance and repair work. Figure A.1 shows the major market segmentations.

Major market segmentation (2012-13)

Source: WWW.IBISWORLD.COMAU

Major market segmentation (2012-13)

Equipment and component sellers

30%
Residential building market

27.5%
Office, hotel and other commercial building markets

Figure A.1: Major market segmentation of the Australian refrigeration and air-conditioning industry, 2012-13

Source: IBISWorld Industry Report E4233: Air-conditioning and heating services in Australia, November, 2012.

The majority of the industry works in the residential and office, hotel and other commercial building segment. However, the main source of revenue being derived from new installation, maintenance and repair work is in the non-residential building segment.

 $^{^{16}}$ IBISWorld 2012, Air-conditioning and heating services in Australia, Industry Report E4233, November, p. 5.

¹⁷ ibid., p. 5.

The industry currently has about 3,400 establishments, with a relatively even cross-section of organisational sizes with on average five people employed per organisation.¹⁸ Most of the established organisations in the industry can provide a broad range of services, while small- to medium-sized contractors tend to specialise and operate in distinct geographical areas.

Though the geographical segmentation of the industry tends to correspond to the distribution of economic activity across the jurisdictions, it is heavily influenced by differences in climate. For example, there is a higher proportion of installation of air-conditioning units in the hotter northern states, while there is greater demand for ducted heating work in the cooler southern states. This is evident in Figure A.2, which shows that Queensland's share of national industry establishments (22.3 per cent) exceeds the state's share of GDP.

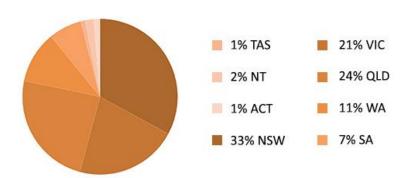


Figure A.2: Market segmentation by business location, 2012-13

Source: IBISWorld Industry Report E4233: Air-conditioning and heating services in Australia, November, 2012.

Current licence requirements

Regulatory framework

The licensing of the refrigeration and air-conditioning occupation is undertaken by a variety of agencies across the states, territories and the Commonwealth. In New South Wales, South Australia, Tasmania and the Australian Capital Territory, the licensing of refrigeration and air-conditioning workers rests with generic regulators, who have responsibility for licensing a number of different occupations. In Victoria, Queensland, Western Australia and the Northern Territory, occupational licensing is undertaken by separate boards or regulators. A list of the relevant regulators for refrigeration and air-conditioning in each jurisdiction is shown in Table A.1.

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¹⁸ ibid.

Table A.1: State and territory regulators of the refrigeration and air-conditioning occupation

State or territory	Regulator	
New South Wales	NSW Fair Trading	
Victoria	Plumbing Industry Commission and EnergySafe (for a restricted electrical licence)	
Queensland	Queensland Building Services Authority (trade contractor licensing) The Petroleum and Gas Inspectorate, Department of Natural Resources and Mines (occupational gas work licence – hydrocarbon refrigerants)	
Commonwealth	Licensed by the Australian Refrigeration Council Ltd on behalf of the Australian Government	

Table A.2: State and territory regulators of related licensing for refrigeration and air-conditioning

State or territory	Regulator
Western Australia	Electrical Licensing Board (Energy Safety) (licensed as restricted electrical licences)
South Australia	Consumer and Business Services Division of the Attorney-General's Department, South Australia (licensed under building and restricted electrical licences)
Tasmania	Workplace Standards (licensed under plumbing and electrical)
Australian Capital Territory	Planning and Land Authority (licensed as electricians)
Northern Territory	NT Worksafe (licensed as electricians)

Summary of jurisdictional approaches

Currently, Western Australia, the Australian Capital Territory and the Northern Territory do not license refrigeration and air-conditioning work. Victoria and Tasmania license mechanical services (as defined above), which is regulated under plumbing (and is discussed in the Plumbing and Gasfitting Regulation Impact Statement). South Australia regulates both refrigeration and air-conditioning under the building and restricted electrical occupations, but does not license actual refrigeration and air-conditioning work that includes refrigerant gases. New South Wales and Queensland are the only states that license air-conditioning and refrigeration as a separate occupational areas; Queensland licenses at a contractor level licence only, while New South Wales licenses at both the contractor and occupational licence levels. Queensland also licenses the handling of hydrocarbon refrigerants at an occupational level.

Different licence requirements

Licensing to undertake refrigeration and air-conditioning work is not consistent across the jurisdictions. Licences issued by jurisdictions for the same occupational area often have different parameters, eligibility requirements and scopes of work. This includes different licence classifications, training requirements, licence periods, licence structures and fee structures. Examples of the differences that have been identified in the approaches to the regulation of refrigeration and air-conditioning occupational area by the jurisdictions are:

• In Queensland, refrigeration and air-conditioning work is licensed under the building occupations at a contractor licence level only, as one broad licence category covering both refrigeration and air-conditioning.

- Queensland is the only jurisdiction to license the handling of hydrocarbons refrigerants and requires refrigeration and air-conditioning workers to hold an occupational gas work licence to work with hydrocarbon refrigerants. Prerequisites to obtaining this licence include holding the Commonwealth Arctick licence and a Certificate III Refrigeration and Air-conditioning.
- The majority of jurisdictions regulate refrigerants of all kinds under occupational health and safety, gas or dangerous goods legislation, and do not distinguish between the refrigerants.
- New South Wales offers refrigeration and air-conditioning licences at both a supervisor and a contractor licence level. Refrigeration and air-conditioning work are licensed as separate categories, i.e. as refrigeration work and as air-conditioning work.
- Regulations to address public health risks relating to refrigeration and air-conditioning are sometimes covered by health legislation, for example, maintenance of cooling towers.
- Within all jurisdictions, the regulation of the refrigeration and air-conditioning is also licensed, in various ways, by building, plumbing and electrical regulators.
- In Victoria, to obtain a refrigeration and air-conditioning endorsement, a licensee must first
 hold a licence or registration in mechanical services plumbing, hold relevant qualifications
 (either a Certificate III in Air-conditioning and Refrigeration (UEE32211) or Certificate III in
 Engineering Mechanical Trade (MEM30205)), hold a restricted electrical licence and
 have a minimum of two or four years relevant practical experience.
- South Australia regulates refrigeration and air-conditioning under the building occupations where the primary focus of licensing is the structural integrity of the installation of a refrigeration and air-conditioning unit in a building (i.e. the mounting of the unit and the strengthening of trusses where required) but does not license actual refrigeration and air-conditioning work. A restricted electrical licence is required for any electrical work in relation to fault finding and the electrical connection of the unit to the power.
- Tasmania licenses mechanical services plumbing, but this is concerned primarily with the plumbing aspect of the work. In this jurisdiction, refrigeration and air-conditioning work is not licensed.
- Western Australia, the Australian Capital Territory and the Northern Territory do not license refrigeration and air-conditioning work.

All jurisdictions, however, currently require refrigeration and air-conditioning workers to hold a restricted electrical licence to disconnect and reconnect refrigeration and air-conditioning equipment if they are working with equipment that is hard wired when they are undertaking installation and repairs. In some jurisdictions a restricted plumbing licence may also be required to disconnect and reconnect from a water supply.

For example, in Western Australia a refrigeration and air-conditioning tradesperson gains the underlying qualifications for a restricted electrical licence as an integral part of their Certificate III in Electrotechnology, Refrigeration and Air-conditioning training. The restricted electrical licence is granted automatically upon completion of their apprenticeship and presentation of their

Certificate III document. This restricted electrical licence authorises tradespersons to perform the following electrical work:

- disconnect and reconnect refrigeration and air-conditioning equipment
- perform fault finding on refrigeration and air-conditioning power and control circuits
- modify, replace or repair components within the refrigeration and air-conditioning package
- modify refrigeration and air-conditioning control circuits in switchboards and panels
- install factory-supplied cable only between refrigeration and air-conditioning components in split-cycle systems up to 4kW.

The restricted electrical licence does not authorise the holder to install or alter fixed wiring.

This is similar to other jurisdictional practices. Responsibility for administering these regulatory schemes lies with the relevant jurisdictional electrical and plumbing regulators.

It could be said that the limited extent of state licensing, with only three jurisdictions licensing the refrigeration and air-conditioning occupation, is influenced by other regulatory processes such as electrical, plumbing licensing, health and consumer legislation. These other regulatory processes, in addition to the skills and qualifications required to obtain the Commonwealth Arctick licence, are seen to mitigate risk of not licensing the occupations in those jurisdictions that do not licence.

The licensing of the refrigeration and air-conditioning occupation is therefore very difficult to compare, as regulation requirements for persons to have a specific licence to undertake refrigeration and air-conditioning work is not consistent across jurisdictions.

Commonwealth Arctick licence

The Commonwealth Arctick licence (Arctick licence) requires that any person undertaking the handling of refrigerants, must be a licensed individual under the *Ozone Protection and Synthetic Greenhouse Gas Management Regulations 1995* (Cwlth) (the Regulations). Holders of a refrigerant handling licence are individuals who are qualified in their field of activity and have met the licensing requirements under the Regulations.

The breakdown of licence type and industry sector is shown in Tables A.3 and A.4.

Table A.3: Commonwealth Arctick licences by licence type

Licence type	Number	Percentage
Trainee licences	4,262	7.7%
Trainee (classroom only) licences	2,150	3.9%
2 year licences	47,028	84.6%
Transitional 1 year licences	782	1.4%
Transitional refrigerant handling licences	176	0.3%
Transitional refrigerant recoverer licences	168	0.3%
Full/ trainee licences	42	0.1%
Full/ transitional licences	246	0.4%
Awaiting assessment	508	0.9%
Incomplete applications	196	0.4%
Total licences	55,558	100%

Table A.4: Commonwealth Arctick licence by industry sector

Licence type	Number	Percentage
RAC	24,152	43.5%
Automotive	24,812	44.7%
Split systems	4,926	8.9%
Domestic	375	0.7%
Aviation	132	0.2%
Marine	297	0.5%
Refrigerant recoverer	254	0.5%
Refrigerant handling	273	0.5%
Transport refrigeration	130	0.2%
Online awaiting assessment	207	0.4%
Total licences	55,558	100%

Attachment B - List of submissions

Table B.1 contains a list of submissions to the refrigeration and air conditioning occupation Consultation RIS from organisations, industry associations or an individual. A number of submissions are not included in the table for the following reasons:

- permission for publishing not given; or
- submission is from a government agency; or
- individual has not identified themselves with a full name

All submissions, except those not giving permission for publishing or from a government agency, can be found on the NOLA website www.nola.gov.au .

Table B.1: List of submissions provided by organisations, industry associations and individuals

Submissions provided by organisation/industry a	associations
A.D.I.T. Services Pty. Ltd	Llewellyn, Pauline
Air Conditioning and Mechanical Contractors'	Eynon, David
Association of Australia	
AIRAH Polytechnic West	Boyle, Graham
AllStaff Airconditioning	Parry, Mike
Allstyle Maintenance	Allsop, Bradley
Anemos Heating & Cooling	
Anything Reptiles	Brodie, Shane & Lynne
Appliance Industry Association	
Aquabase Plumbing	Bell, Robert
ARK Airconditioning, Refrigeration & Electrical	Kable, Kristy
Services	
Association of Hydraulic Services Consultants	Alexander, Mark
Australia Inc. (Victorian Chapter)	
Australian Duct Manufacturers Alliance	Sterling, Paul
Australian Institute of Refrigeration Air	Cox, Neil
Conditioning and Heating	
Australian Manufacturing Workers' Union	Curry, lan
Australian Refrigeration Association	Edwards, Tim
Australian Refrigeration Council	Padwick, Mark
Ayres Plumbing	Ayres, Chris
Bayside Construction	Pederson, Jenny
Bickeighvale Plumbing	Clarke, Damien
Blue Arrow Plumbing Services	O'Brien, Tom
Blue-tec Plumbing	Male, Andrew
BMH Roof Worx Pty Ltd	Hay, Brenton
Border Refrigeration and Air Conditioning	Marsden, lan
Bourke and Sons Constructions Pty Ltd	Bourke, Stephen
Branjar Plumbing	Schonfelder, Brandt
Brett the Gutter Man	Burmeister, Brett & Tanya
Brian Potter Plumbing & Roofing	Potter, Brian
Brisbane Refrigeration	Kelly, Damian

Submissions provided by organisation/industry a	ssociations
Brooks Plumbing	Brooks, Peter
Business Council of Australia	Westacott, Jennifer
C.A. Group Services Pty Ltd	Tuena, lan
C.M.C Roof Plumbing Pty Ltd	McCormack, Chris
Caldera Consulting Group Pty Ltd	Cocks, Stuart
Capital Plumbing	Burtt, Sally
Cellitec Air Conditioning Pty Ltd	Hignett, Anne
Chadoak Plumbing & Drainage	Manks, Glenn
Chris Penny Plumbing	Hull, Chris
Coffs Air Supply	Crosby, James
Communications, Electrical Plumbing Union	McClusky, Doug
Plumbing Division Federal Office	modiusky, boug
Communications, Electrical Plumbing Union	Setches, Earl
Plumbing Division Federal Office	50001100, 12011
Communications, Electrical Plumbing Union	Mier, David
Electrical Division	
Cousins Roofing	
D & K Evans Plumbing	Evans, Darren
Dalkia Solutions	Meyer, Curt
Dalkia Technical Services	St Clair, Duncan
Dampier Air-Conditioning and Refrigeration	McLeod, Rory
Delta Airconditioning Pty Ltd	Coombe, Barrie
Devon Meadows Plumbing	Brady, Tony
DPM Precision Roof Plumbing	Marshall, Damien
DW & AE Brigham	Brigham, David
Eastern Plumbing Works	Campbell, Neil
EE-Oz Training Standards Industry Skills Council	Taylor, Bob
Electrolux	Lamb, Phil
Everlast Plumbing Service	Juchno, Darrell
Fredon Air Pty Ltd	Jucinio, Darren
Fudges Plumbing	Fudge, Andrew
G. Harris Consulting Pty Ltd	Harris, Gordon R
G4 Plumbing & Drainage	Gallichio, Matt
Gaffco	Gallicillo, Watt
Garry Trafford Heating and Air Conditioning Pty	Trafford, Garry
Ltd	Tranolu, darry
General Air Conditioning Services Pty Ltd	Brunt, Peter
G-Force Climate	Gee, Adam
GOTAFE	Redfern, Leonard
Greg Salter Plumbing	Crerar, Dwayne
	Hames, Kevin
Hannan Tachnical Services Pty Ltd	·
Hannan Technical Services Pty Ltd Harris & Thorn	Hannan, Michael
Harris & Thorn	Thorn, Richard
	Harris, Adrian
Heating and Cooling Alliance of Australia	Lee, Craig
Hewcon Group	Pozzenbon, Dennis
Interline Roofing	Coll, Mick
Jacmac Enterprises	McWhinney, Steve
Jade A&R Airconditioning & Refrigeration	

ssociations
McKenzie, Jason
Bossy, John
Rallings, Joshua
Johnston, Cameron
Crow, Jamie
Baker, Robert
Kennedy, James
Lewison, Steve
Clark, John W
Clark, John W
Prince, Michael
Bain, William
Paton, Bob
. 4.6.1, 565
Maroya, Alex
Gardner, Ken
daruner, ken
McCallum, Murray
Wiccanam, Warray
Doueal, Mark
Milne, Gary
Evans, Bruce
Toeroek, Mitch
Rogers, Kevin
Rogers, Reviii
Roveglia, Jamie
McCloy, Mark Andrew
Vener, Bill
Moore, Larry
Moore, Larry
Cabill Norm
Cahill, Norm Pettifer, Rob
Pettiler, Rob
Mard Mick & Tim
Ward, Mick & Tim
Clark, Robert
English Mark
English, Mark
Tillack John
Tillack, John
Brice, Paul
Live or Const
Limburg, Grant
Ballment, Kev
Moore, Larry

Submissions provided by organisation/industry as	ssociations
Refrigeration and Air Conditioning Contractors	O'Shea, Kevin
Association of Australia	
Refrigeration and Electrical Services Qld	Limburg, Kim
Right Air Pty Ltd	McLoughlin, George
RRESA	
S & L Jackson Plumbing Solutions	Jackson, Scott
Scott McInerney Refrigeration	
Sean Scott Plumbing Pty Ltd	Scott, Sean
SGT Plumbing	
Sims Refrigeration	
Sun City Refrigeration Service	Granshaw, Peter
TAFE SA	Theologou, Con
The Plumbing Business	Martin, Brent
Thurlain Airconditioning	
Toms Star Airconditioning	Heron, Michael
Top Stream	Pickering, Adam
Topgrade Plumbing and Roofing	Smith, Rodger
Unblock Plumbing	Kearton, R & N
Van Eerde Air Conditioning and Refrigeration Pty	van Eerde, Robert
Ltd	
VASA	Stangroome, lan
Western Downs Refrigeration	Jahnke, Lindsay
Westerport Roof Supplies	
Whelan Air Conditioning Aust Pty. Ltd.	Williams, Geoffrey R

Submissions provided by individuals	
Akarsu, Josh & Felicity	Hostettler, David
Attenborough, Glenn	Hotman, Ruth& Robert
Bailey, Steve	Hulm, Greg
Ballment, Don	Hulm, Luke
Barratt, Wayne	Humphrey, Lisa
Black, Matthew	Humphrey, Mark
Blizzard, Deb	Hurley, Chris
Boborci, Stefan	Hurley, Kevin
Bolton, Jamie	Hutton, Chris
Bosdorf, Kris	Hy Ta, Le
Bowman, Julie	Imstav, A
Bray, Rob	Jones, Neil
Brewer, Paul	Jones, Paul
Bridger, Chris	Jones, Sam
Burchell, Neil	Jones, Scott
Burriss, Chris	Kable, Adam
Cameron, P & S	Katavolos, George
Cappa, Anthony	Kikos, Peter
Carne, Benn	Law, Peter
Cassidy, Daryn	Lennie, Sue
Chard, Blake	Lowndes, Adam

Submissions provided by individuals	
Cheremnov, Avril	Martin, Robert
Coates, Ross & Anne	Masin, Matthew
Coates, Stephen	Maxa, Jurgen
Cooke, Joanne	McKenna, Nick
Cooper, Jess	McPhee, Louise & Marc
Cousland, Ben	Mercuri, Anthony
Crestani, Mark	Nicholls, Mark
Den Boer, Jenny	Oates, Brendon
Dennis, R W	Park, Linda
Devitt, Laurie	Pav, Marcus
Duff, Andrew	Peynenborg, David
Dvoracek, Fred	Pillion, Richard
Eaton, R T	Rankin, Andrew
Engelmann, Shane	Robinson, Andrew and Naomi
Farrell, Pat and Sue	Robinson, Jason
Fenech, John	Ryan, Joshua
Feore, Rick	Schmidt, Eric
Fitzsimmons, Mark	Sloan, Jason
Fitzsimons, Wayde	Sprunt, Aaron
Forrest, Robert	Stapleton, Mark
Foster, Matthew	Steer, Michaela
Garbutt, Vance	Steinecke, Runar & Michelle
Gardner, Ken	Stone, Rhys
Gibson, David	Taylor, James
Ginns, Dean & Di	Thomas, Clint
Giuliani, Madison	Thompson, Melissa
Godfrey, Michael	Thornton, Josie
Granville, Marnie	Toeroek, Mitch
Halbish, Phil	Tomkins, Matt
Hamshere, Rob	Trotter, Lindsay
Harnath, Jeff	Truscott, Rosemary
Harvey, Colin& Linda	Vaneyk, Herman
Harwood, Tim	Walsh, Tom
Higgins, Loretta	Yole, Benjamin
Higgins, Neil	Young, Hilton
Hirt, Adam	Young, Kathy
Horsey, Cameron	

Attachment C – National licensing policy development process

Under the Intergovernmental Agreement for a National Licensing System for Specified Occupations, signed by states and territories in April 2009, the COAG National Licensing Steering Committee (the Steering Committee) was given responsibility to oversee the implementation of national licensing in the interim period before the establishment of the National Occupational Licensing Authority. Membership of the Steering Committee comprises central agency representatives from each jurisdiction. The Steering Committee reports on progress to the Business, Regulation and Competition Working Group (now the Business Advisory Forum Taskforce, following the cessation of BRCWG on 31 December 2012).

The Standing Council on Federal Financial Relations (SCFFR) has overall responsibility for this reform.

In considering policy issues, the Steering Committee and the interim advisory committees for each of the initial four occupations to be considered for national licensing were bound by the objectives and principles in the Intergovernmental Agreement, including a requirement to comply with COAG's principles of best practice regulation. These principles include a requirement to establish a case for action; to consider and cost a range of response options, including non-regulatory approaches; and to ensure that the response option selected provides the greatest net benefit to the community as a whole. Key stakeholders were consulted and government action must be 'effective and proportional' to the issue being addressed.

The Steering Committee's primary source of advice for current occupational regulations was the interim advisory committees established for each of the occupational areas, each of which had an associated RWG.

Members of the interim advisory committees represented a balance of expertise relevant to an occupational area across the fields of regulation, industry operations and practices (from both a union and employee perspective), safety, consumer advocacy, insurance (where relevant) and training. The RWGs comprised regulator members from each relevant jurisdiction.

The Refrigeration and Air-conditioning Mechanics Interim Advisory Committee developed policy advice over a period of 18 months. The majority of advice provided by the interim advisory committees was incorporated into the Steering Committee policy advice for the drafting of the national licensing Amendment Bill and regulations, and is considered in this Decision RIS for the refrigeration and air-conditioning occupation. There are, however, instances where, after having regard to the objectives and principles set out in the Intergovernmental Agreement, the Steering Committee formed a different view to that of the Interim Advisory Committees. Such instances are noted.

Government representatives from all jurisdictions provided policy advice and contributed to the drafting instructions for the Amendment Bill and regulations, including representatives from Western Australia and the Australian Capital Territory, which have not yet enacted the National Law. Accordingly, the impact analysis and cost—benefit calculations take into account the current regulatory arrangements in all jurisdictions.

A detailed consultation process was also undertaken in late 2012. Following the release of the Consultation RISs and draft legislation seeking public comment, information sessions were held across the country. A summary of the issues raised are included in this Decision RIS in Chapter 4.

It should be noted that the policy development for mechanical services plumbing was initially undertaken by the Refrigeration and Air-conditioning Mechanics Interim Advisory Committee due to some overlaps with that occupational area. Close communications with the Plumbing and Gasfitting Interim Advisory Committee concerning relevant policy discussions on mechanical services plumbing were maintained. The Steering Committee, in March 2011, made the decision that mechanical services should sit with the plumbing and gasfitting occupational area. Information regarding the proposed policy for mechanical services plumbing can therefore be found in the Plumbing and Gasfitting Consultation RIS.

Membership of the Refrigeration and Air-conditioning Mechanics Interim Advisory Committee, Refrigeration and Air-conditioning RWG and the COAG National Licensing Steering Committee is provided below.

The Interim Advisory Committee and RWG met throughout 2010 and early 2011 to assist with the development of the first four elements of licensing policy for the national licensing system:

- licence categories, licence types and authorised scopes of work
- eligibility requirements (skilled and non-skilled)
- other licence characteristics (exemptions, conditions, restrictions and endorsements)
- transitional arrangements.

The objectives used in developing the policy which forms the basis for the proposed regulations and Amendment Bill are taken from section 3 of the *Occupational Licensing National Law Act 2010,* as set out below:

- a) to ensure that licences issued by the Licensing Authority allow licensees to operate in all participating jurisdictions;
- b) to ensure that licensing arrangements are effective and proportionate to ensure consumer protection and worker and public health and safety while ensuring economic efficiency and equity of access;
- c) to facilitate a consistent skill and knowledge base for licensed occupations;
- d) to ensure effective coordination exists between the Licensing Authority and jurisdictional regulators;
- e) to promote national consistency in
 - i. licensing structures and policy across comparable occupations; and
 - ii. regulation affecting the requirements relating to the conduct of licensees; and
 - iii. the approach to disciplinary arrangements for licensees;

- f) to provide flexibility to deal with issues specific to particular jurisdictions or occupations;
- g) to provide the public with access to information about licensees.

The policy development process, in addition to complying with COAG's principles of best practice regulation, followed the principles set out in the Intergovernmental Agreement, which forms the basis for establishing national licensing:

- a) The system operates in a transparent, accountable, efficient, effective and fair manner;
- b) Regulatory intervention in the form of licensing is only contemplated where risks arising from market failure or risks to public health and safety warrant corrective action and, of all feasible options, licensing provides the greatest net public benefit;
- Licensing arrangements do not duplicate legislative protections contained under other laws, in particular, competition law, consumer protection law or occupational health and safety law;
- d) Licensing arrangements only include requirements needed to address identified consumer protection risks arising from market failure and/or worker and public health and safety risks without imposing unnecessary costs on consumers and business or substantially lessening competition;
- e) Licensing eligibility requirements are expressed in objective not subjective terms;
- f) The system will not require the extension of licensing to sub-groups of a broad occupational group that are not currently licensed in particular jurisdictions; and
- g) Licensing arrangements are subject to an initial review five years after commencement and subsequently at a frequency no less than every ten years.

These principles include a requirement to establish a case for action; to consider and cost a range of response options, including non-regulatory approaches; and to ensure that the response selected provides the greatest net benefit to the community as a whole. Key stakeholders must be consulted and government action must be 'effective and proportional' to the issue being addressed.

As part of the National Occupational Licensing Authority's communications strategy, following each meeting, communiqués outlining the progress of work were made available on the website www.nola.gov.au.

Table C.1: Membership of the Refrigeration and Air-conditioning Mechanics Interim Advisory Committee

Name	Organisation
Mr John Ramsay – Chair	Member of the National Licensing Expert Working Group
Mr Chris Boyle	Queensland Building Services Authority
Mr Ian Curry	Australian Council of Trade Unions
Mr Glenn Evans or	
Mr George Thompson	Australian Refrigeration Council
	Department of Finance and Services
Ms Regina Haertsch	National Reforms, NSW Fair Trading
Mr John Ingram	Australian Council of Trade Unions
Mr Shayne La Combre	Victorian Plumbing Industry Commission
Mr Graham Mackrill	Air-conditioning and Mechanical Contractors Association
Mr Doug McClusky	Australian Council of Trade Unions
Mr Patrick McInerney	Commonwealth Department of Sustainability, Environment, Water, Population and Communities
Mr Larry Moore	National Electrical and Communications Association
Mr Kevin O'Shea	Refrigeration and Air-conditioning Contractors Association
Mr Bob Paton or	
Mr Nick Juniper	Manufacturing Industry Skills Council

Table C.2: Membership of the Refrigeration and Air-conditioning Mechanics RWG

Name	Stakeholder
Mr John Ramsay	Chair
Ms Regina Haertsch	NSW – Department of Services, Technology and Administration
Mr Shayne La Combre	Victorian Plumbing Industry Commission
Mr Chris Boyle	Queensland Building Services Authority
Mr Don Saunders, or	Energy Safety Division, Department of Commerce, Western Australia
Mr Saj Khan	
Mr Peter Day	South Australia Water
Mr Robert Steedman	Department of Justice, Workplace Standards Tasmania
Mr David Middlemiss	Environment and Sustainable Development Directorate, ACT
Mr Fabio Finocchiaro	Department of Employment, Education and Training, Northern Territory
Mr Patrick McInerny	Department of Sustainability, Environment, Water, Population and Communities

Table C.3: Membership of the COAG National Licensing Steering Committee

Jurisdiction	Member	Department
Commonwealth	Mr Robert Griew – Chair	Department of Innovation, Industry, Science, Research and Tertiary Education
NSW – joint	Dr Meg Montgomery	Department of Premier and Cabinet
	Mr Scott Wheeler	Department of New South Wales Treasury
VIC	Mr Sam Abusah	Department of Treasury and Finance
QLD	Ms Katrina Martin	Queensland Treasury
WA	Mr Alistair Jones	Department of Treasury and Finance
SA	Mr Stephen Campbell	Department of the Premier and Cabinet
TAS	Ms Kerrie Crowder	Department of Justice
ACT	Mr Brett Wilesmith	ACT Treasury
NT – joint	Mr Robert Bradshaw	NT Department of Justice
	Mr Armando Padovan	Department of Lands and Planning NT

Table C.4: Membership of the National Occupational Licensing Authority Board

Ms Elizabeth Crouch
Board members
Mrs Wendy Machin
Mr Graham Anderson
Mr Albert Koenig
Mr John Sutton
Ms Miranda Douglas-Crane
Mr Tony Arnel
Ms Anne Gale
Mr David Ford

Attachment D – Risks associated with refrigeration and air-conditioning work

Generally, the regulation of the refrigeration and air-conditioning occupation, which is concerned with the heating, cooling and ventilation of buildings in Australia, has evolved as a way of protecting the health and safety of consumers, the protection of the environment and, as a component of building work, to protect consumers financially by minimising poor workmanship and the incidence of contractors failing to rectify work. The risks associated with undertaking refrigeration and air-conditioning work have been addressed by government intervening in a number of ways, including through business and occupational licensing (in some jurisdictions), occupational health and safety regulation, health regulations and building standards and codes for undertaking work.

Risks associated with the use of refrigerants

Currently, a large proportion of the refrigeration and air-conditioning equipment in Australia uses fluorocarbon refrigerants to facilitate the heat transfer process. The risk associated with fluorocarbon refrigerants is that their release can result in environmental harm. 'Fluorocarbon refrigerants are synthetic chemicals which usually have a high global warming potential, and some still have the potential to cause damage to the ozone layer as well if released to the atmosphere.' 19

Alternatives to these synthetic chemicals are the 'natural' refrigerants, so-called because the substances also occur in nature. These alternatives include ammonia, carbon dioxide and hydrocarbons.

Hydrocarbon refrigerants have excellent refrigerant properties, very low global warming potential and no ozone-depletion potential. However, if hydrocarbon refrigerants leak from refrigeration systems and mix with air, they can form a potentially explosive mixture. While quantities of refrigerant in domestic situations are usually small, refrigerant charges in commercial and industrial situations are significant and ignition of any leak could cause considerable damage and consequences. In a mobile context (such as motor vehicles) the consequences of leaks of even small charges can be very significant.²⁰ Consequences of these safety concerns can be significant for the owner of the equipment or system and for the person involved in the incident, as outlined in safety alerts issued by SafeWork South Australia, the New Zealand Department of Labour and Petroleum and Gas Inspectorate.

There is a need for safe design and operational practices and control mechanisms to safely and adequately address the safety risks in using hydrocarbon refrigerants. As noted in a report by the Department of Environment and Water Resources in Queensland, most incidents have occurred due to poor service practices.

¹⁹ Heaney, C, Swinard, R, Pang, A & West, S 2007, Natural refrigerants: case studies, Australian Institute of Refrigeration, Air-conditioning and Heating, p. 3.

²⁰ See Queensland Government Department of Natural Resources and Mines website.

Systems that were originally designed to use non-flammable refrigerants and have been retrofitted to use flammable hydrocarbon refrigerants must obtain expert advice from the manufacturer for safety requirements and compatibility of the equipment or system.²¹

Risks associated with the contamination of air-flow

Contamination of air supply systems and air supply systems that deliver poor indoor air quality may result in a range of health problems such as respiratory illnesses (for example legionella), headache, fatigue and recurrent infections.²²

Contamination of indoor air supply systems results from a build-up of air pollutants and biological contaminants such as bacteria, moulds, mildew, viruses, animal dander and cat saliva, house dust, mites, cockroaches, vermin, and pollen. For example, air-conditioning duct systems, especially in humid climates, can be incubators for microbial pollutants such as mould and bacteria, including legionella, which are widespread in the environment, being found in lakes, ponds, creeks and other bodies of water. They can also thrive in man-made systems such as cooling towers associated with air-conditioning and spas. With the alternating high and low humidity conditions that regularly occur in air-conditioning ducts during air conditioner operation, moulds grow, spread, produce spores and distribute the spores throughout a house or building.²³

Australia's largest legionella outbreak occurred in April 2000 at the Melbourne Aquarium, where 125 cases of legionnaires disease were diagnosed and four people died. This outbreak was due to legionella pneumophila, which was found to be contaminating the Aquarium's cooling towers.²⁴

Table D.1 outlines the risks that can arise from refrigeration and air-conditioning activities.

Table D.1: Risks associated with refrigeration and air-conditioning work

Risk area	Impact
Health and safety	 air quality – incorrectly installed or maintained refrigeration and air-conditioning systems can lead to health problems and the spread of disease or pose safety issues for workers and the public (e.g. CO₂ leaks, ammonia, hydrocarbons and all refrigerants)
	 contamination of airflow (although it is acknowledged this risk is covered by public health laws)
	 potential electrical hazards associated with defective or incorrect wiring or associated work practices
	fire safety – flammable refrigerants or faulty installation assisting fire to move through a building
	potential risk of fatality or severe injury to the public and workers from explosion of flammable refrigerants
	food safety, for example, failure of fridges causing food problems
	refrigerant leaks including in high pressure systems

²¹ Hychill's website 'Refrigeration appliances using hydrocarbon refrigerants (ECOFRIG Publication) 1997'.

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Storey, E, Dangman, K, Schenck, P, DeBernardo, R Yang, C, & Bracker, A 2004, Guidance for clinicians on the recognition and management of health effects related to mold exposure and moisture indoors, University of Connecticut Health Center. Instructional book developed under Cooperative Agreement No. T 981255 awarded by the U.S. Environmental Protection Agency.

 $^{^{23}}$ See The Key to Mold Control is Moisture Control article from the Environment Protection Authority website.

²⁴ Western Australia Department of Commerce 2009, *Code of practice: Legionnaires disease*.

Risk area	Impact
	cross-contamination in manufacturing environments
Property damage ^a	incorrectly installed refrigeration and air-conditioning systems leading to structural damage, leaks, product damage
	fire safety – flammable refrigerants or faulty installation assisting fire to move through a building
	refrigerant leaks, including in high pressure systems
	product damage
	 increased building, repair and maintenance costs and unnecessary energy consumption
	 dangerous conditions, such as drawing heating-equipment combustion gases into the building cooling (or heating) air system
Environmental ^b	indirect greenhouse emission not covered under refrigeration and air-conditioning
	loss of energy efficiency due to poor installation
	 defective refrigeration and air-conditioning systems or installation/maintenance work practices that result in the release of fluorocarbons and other gases into the environment
	infection control
	cross-contamination in manufacturing environments

^a It should be acknowledged that licensing does not prevent property damage.

Risks involving hydrocarbons

The following articles show a number of risks and alerts involving work with hydrocarbons.

WorkSafe Victoria

Information for manufacturers and suppliers of substances

WorkSafe Victoria interprets the duty of care for manufacturers and suppliers of substances under the *Occupational Health and Safety Act 2004* and ensures health and safety. WorkSafe Victoria states that risks to health and safety must be eliminated and reduced as far as reasonably practicable. Both manufacturers and suppliers have a duty to provide information, take account of potential risks in their entirety, to test and supply in a safe condition and to inform upon request.

New Zealand Department of Labour Health and Safety Publications

Safe use of hydrocarbon refrigerants

The factsheet provides information about the need for safe design of plant and control systems, and adequate maintenance and safe operation practices when using hydrocarbon refrigerants. The factsheet also notes that retrofitted systems may need to be recertified and that technicians may need to be qualified and informed about the regulatory controls and standards. Furthermore, the factsheet suggests that workers ensure that no potential sources of ignition exist where flammable gas could be present. This includes all electrical equipment not certified for use in hazardous areas.

^b Environmental risks are also covered by environmental law.

SafeWork South Australia - incident-related

Use of flammable refrigerants including hydrocarbon mixes

A hazard alert was issued by SafeWork South Australia after a fire resulting from a hydrocarbon refrigerant. The incident caused serious burns to a refrigeration mechanic and an auto electrician. A quantity of hydrocarbon refrigerant escaped and came into contact with an ignition source, resulting in the fire. Risk control measures for handling highly flammable refrigerants recommended by SafeWork South Australia include:

- use refrigerants according to manufacturer's specifications
- use only fixed equipment and if designed to use flammable refrigerants
- acquire advice from the vehicle manufacturer to retrofit a vehicle's air-conditioning system
- apply appropriate and permanent labelling
- use odorised hydrocarbon refrigerants
- users and technicians take precautionary measures where possible as odorising agents can be filtered within the refrigeration system.

Note: Work on air-conditioning in vehicles is out of the scope of the refrigeration and air-conditioning occupation under national licensing.

Department of Labour Health and Safety Publications – incident-related

Coolstore hydrocarbon refrigerant injures technician

A hazard alert was issued by Department of Labour New Zealand as a result of a fire erupting from a commercial refrigeration unit containing hydrocarbon refrigerant, but which was marked as containing a non-flammable gas. There was significant damage to the refrigeration unit, and the technician suffered burns to his face and hands. The investigation into the accident revealed that the owner was unaware that the unit contained flammable refrigerant, there was no signage to identify the hazard type, both the owner and the technician presumed the unit was safe and the hydrocarbon refrigerant was not odorised to provide indication of a leak in the system. The Department of Labour New Zealand recommends and emphasises that all persons who own, service or install cool store units should determine what refrigerant is within the system and should follow AS/NZS 1677.2:1998 Refrigerating Systems — Safety Requirements for Fixed Applications and AS/NZS 60079.29.2:2008 Explosive Atmosphere — Gas Detectors — Selection, Installation, Use and Maintenance of Detectors for Flammable Gases and Oxygen, where applicable. There is also emphasis that advice and assistance should be sought from a technician who is a competent refrigeration engineer.

United States Environmental Protection Agency

Detailed questions about HC-12a *, OZ-12 *, DURACOOL 12a *, EC-12a, and other flammable hydrocarbon refrigerants

Provides answers to specific questions about refrigerants.

Attachment E – Key changes to existing jurisdictional licensing arrangements

New South Wales

Some general differences would apply to new individual worker licence applicants when compared to current licensing arrangements, including:

- removal of personal probity checks and health and fitness checks
- removal of tradesperson licence
- removal of two licence categories
- inclusion of financial probity checks for individual worker licences in relation to payment of penalties or fines.

Table E.1: Differences by licence category - New South Wales

Proposed national licence (occupational) categories, eligibility and other requirements	Current licence categories, eligibility and other requirements
Refrigeration and Air-conditioning licence	Air-conditioning work
Certificate III	Removed requirements:
Financial probity checks in relation to payment of penalties or fines	personal probity checks
Skills maintenance on an as needs basis	health & fitness checks
One, three or five year licence duration	age requirements
One, three or five year licence duration	New requirements:
	financial probity checks in relation to payment of penalties or fines
	Refrigeration work
	Removed requirements:
	personal probity checks
	health & fitness checks
	age requirements
	New requirements:
	financial probity checks in relation to payment of penalties or fines
	Air-conditioning work and refrigeration work
	Removed requirements:
	personal probity checks
	health & fitness checks
	age requirements
	New requirements:
	financial probity checks in relation to payment of penalties or fines
Contractor	Endorsed contractor certificate
Personal probity	Removed requirements:
Financial probity	health and fitness checks
Nominee	minimum age requirement

Proposed national licence (occupational) categories, eligibility and other requirements	Current licence categories, eligibility and other requirements
Provisional refrigeration and air-conditioning Offshore Technical Skills Record	substantially the same

Victoria

In Victoria, to become registered or licensed in a specialised class of plumbing (refrigeration and airconditioning), an individual is required to be eligible for a licence in the relevant main class – in this case, mechanical services plumbing. This is in effect an endorsement. There is also a requirement to hold a restricted electrical licence.

There are some general differences that would apply to new individual worker licence applicants when compared to current licensing arrangements. These include:

- a requirement to introduce a contractor licence
- the removal of the requirement to hold a mechanical services plumbing licence to obtain a refrigeration and air-conditioning endorsement
- the removal of the registration level of licence
- the removal of two restricted licences
- the removal of additional testing where required
- the removal of personal probity checks, evidence of experience and mandatory skills maintenance requirements
- at the current registration level, removal of the option for the regulator to issue a
 provisional registration in a single category where an applicant has not met the
 qualification requirements other than those who have met the agreed Offshore Technical
 Skills Record (OTSR) standards
- the inclusion of financial probity checks for individual worker licences in relation to payment of penalties or fines
- the introduction of a separate contractor level licence currently licence holders can contract with the public
- the removal of regulation for ducting as regulated work under mechanical services.

Table E.2: Differences by licence category - Victoria

Proposed national licence (occupational) categories, eligibility and other requirements	Current licence categories, eligibility and other requirements
Refrigeration and Air-conditioning Certificate III Financial probity checks in relation to payment of penalties or fines Skills maintenance on an as needs basis	Mechanical services plumbing licence endorsed: specialist class Refrigerated air-conditioning Removed requirements: requirement to hold a mechanical services licence personal probity checks
One, three or five year licence duration	 evidence of experience retesting where required New requirement: financial probity checks in relation to payment of penalties or fines
Refrigeration and air-conditioning licence restricted to heat pump and split system installation	Mechanical services plumbing licence or mechanical services plumbing restricted licence endorsed: Refrigerated air-conditioning – restricted to intermediate systems
Certificate II	Removed requirements:
Financial probity checks in relation to payment of penalties or fines	 requirement to hold a mechanical services licence personal probity checks
Skills maintenance on an as needs basis	evidence of experience
One, three or five year licence duration	retesting where required
	New requirement:
	financial probity checks in relation to payment of penalties or fines
	Mechanical services plumbing licence or mechanical services plumbing restricted licence: Refrigerated air-conditioning – restricted to basic systems
	Removed requirements:
	requirement to hold a mechanical services licence
	personal probity checks
	evidence of experience
	health and fitness checks
	retesting where required
	New requirement:
	financial probity checks in relation to payment of penalties or fines
Contractor Personal probity Financial probity Nominee	Contractors not licensed; licence holders are allowed to contract with the public
Provisional refrigeration and air-conditioning Offshore Technical Skills Record	Provisional licences will only be issued to offshore or onshore migrants. Current Victorian arrangements provide for the issuing of licences to local residents who have not met the full qualification requirements to obtain a registration.

Queensland

In Queensland licensing of the refrigeration and air-conditioning occupation is at the contractor licence level as part of an overarching refrigeration, air-conditioning and mechanical services licence. No occupational licence is issued. Under national licensing, there would be a refrigeration and air-conditioning licence (which covers work involving refrigerants) and a mechanical services licence (which covers ventilation, heating and cooling of buildings and which does not involve refrigerants). This mechanical services work would be licensed under a separate national licence issued in the plumbing and gasfitting occupational area.

There is currently the requirement to have a nominee supervisor who would be required to meet normal licensing requirements for a trade contractor and must meet the technical, managerial and experience requirements to obtain a licence. Under national licensing, a contractor must have a nominee, and it is proposed this nominee be the holder of a refrigeration and air-conditioning licence or the restricted refrigeration and air-conditioning licence restricted to heat pump and split system installation.

Queensland currently requires a licence for the handling of hydrocarbons and issues a gas work licence (hydrocarbon refrigerants), which is required for a person who installs, commissions and services domestic and commercial refrigeration units along with split system and other airconditioners in that jurisdiction. To be issued with this licence an individual must hold the Commonwealth Arctick licence and have a relevant qualification, such as Certificate III in Refrigeration and Air-conditioning. Queensland is the only jurisdiction to issue such a licence.

Some general differences would apply to new individual worker licence applicants when compared to current licensing arrangements, including:

- the introduction of separate refrigeration and air-conditioning licensing for individuals currently contractor licensing only
- the removal of managerial qualifications for nominees and contractors
- the inclusion of financial probity checks for individual licences in relation to payment of penalties or fines
- a reduction of the extent of financial probity checks as a licence eligibility requirement for contractors (noting that compliance with Queensland's home warranty insurance scheme and 'financial requirements for licensing' will become a conduct requirement for any national licence holder operating in Queensland)
- the removal of criminal history checks and evidence of experience for nominees
- the removal of mechanical services, ducting and design from the scope of work noting that ducting and design will become unlicensed work, while mechanical services will become regulated plumbing work (under the proposed mechanical services plumbing licence)

- a reduction in qualifications for licences (a Diploma in Engineering (Refrigeration and Airconditioning) or Advanced Diploma of Refrigeration and Airconditioning Engineering is required to obtain the current Refrigeration, Airconditioning and Mechanical Services Including Unlimited Design licence in Queensland)
- the removal of the requirement to hold a gas work licence (hydrocarbons). Hydrocarbons
 will be included as a prescribed substance under the draft refrigeration and airconditioning law and will be captured under the refrigeration and air-conditioning scope of
 work.

Table E.3: Differences by licence category - Queensland

Proposed national licence (occupational) categories, eligibility and other requirements	Current licence categories, eligibility and other requirements
Refrigeration and Air-conditioning licence Certificate III Financial probity checks in relation to payment of penalties or fines Skills maintenance on an as needs basis One, three or five year licence duration	not licensed in this jurisdiction In Queensland a licence is only required for the contracting of refrigeration and air-conditioning work, which is not licensed at an occupational level. The Queensland Government is yet to make a decision regarding the introduction of new licences.
Contractor Refrigeration and air-conditioning Personal probity Financial probity Nominee One, three or five year licence duration	Refrigeration, air-conditioning and mechanical services including unlimited design Removed requirements: • requirement to prove financial capability • evidence of experience • approved managerial qualifications for BSA contractor licence New requirements: • financial probity checks in relation to payment of penalties or fines • requirement for a nominee to hold a national licence Refrigeration, air-conditioning and mechanical services including limited design Removed requirements: • requirement to prove financial capability • evidence of experience • approved managerial qualifications for BSA contractor licence New requirements: • financial probity checks in relation to payment of penalties or fines • requirement for nominee to hold a national licence
Provisional refrigeration and air-conditioning Offshore Technical Skills Record	substantially the same
No national licensing proposed Queensland has proposed the endorsement for hydrocarbons requiring the completion of the following units of competency: • UEENEEJ074A safety awareness and legal requirements for hydrocarbon refrigerants • UEENEEJ075A service and repair of self-contained hydrocarbon refrigeration and	 Gas work licence (hydrocarbon refrigerants) Removed requirements (if endorsement is not included): the completion of an apprenticeship in refrigeration mechanics or equivalent air-conditioning, such as a Certificate III in Refrigeration and Air Conditioning or other equivalent qualification accepted by the chief inspector certified training by a gas device manufacturer formal competency-based training from a registered training

Proposed national licence (occupational) categories, eligibility and other requirements	Current licence categories, eligibility and other requirements
 air-conditioning systems) UEENEEJ076A install and commission hydrocarbon refrigeration systems, major components and associated equipment 	organisation in safe use of hydrocarbon refrigerants <i>UEENEEJ074A</i> and <i>UEENEEJ075A</i> will be the mandatory training for the issue of a full hydrocarbon refrigerant authorisation for domestic refrigeration, box air conditioners and split system air conditioners up to 18 KW cooling. Other larger commercial refrigeration or air-conditioning equipment work would require the applicant to complete <i>UEENEEJ076A</i> in addition to the other modules
	 ARC Licence (Full refrigeration and air conditioning licence, restricted split system air conditioning installation and decommissioning licence, or restricted domestic refrigeration and air conditioning appliance licence)

Attachment F – Approach to impact analysis

This section outlines the methods used to estimate the impacts in the cost—benefit analysis. Note that in some of the equations shown below, 'refrigeration and air-conditioning' has been abbreviated to RAC.

Calculations used in the cost-benefit analysis

The impact analysis in this Decision RIS has been developed on the basis of available information on the potential costs and benefits of the options assessed. This section provides a detailed explanation of how the estimates in the cost—benefit analysis were calculated. The underlying data that was used in these calculations is provided in the section titled 'Inputs and assumptions underlying the analysis' below.

The status quo

The status quo provides a base case against which options under assessment can be compared. The status quo option represents what would occur in the absence of any specific action by governments to address identified problems.

For this Decision RIS, the status quo is the continuation of the current system of licensing by state and territory regulators. The current system includes mutual recognition, whereby individuals are licensed at the state and territory level, but are able to seek mutual recognition of their licence if they move to another jurisdiction to work (or work across multiple jurisdictions).

The impact of the status quo position

For this analysis, the impact of the status quo is essentially the costs associated with the continuation of the current arrangements and the weaknesses identified. The linkage between the status quo costs and problem analysis makes intuitive sense as the status quo assumes that no specific action is taken by governments to address problems with current arrangements, and therefore the costs of maintaining the status quo are those associated with the problem.

To summarise, the key impacts of the status quo are:

- direct costs to holders of multiple licences if they wish to work in more than one jurisdiction
- direct costs to licence holders of current regulatory requirements which are not necessary to meet the regulatory objective
- costs associated with complex administrative systems within some jurisdictions and duplicated administrative arrangements for licensing across three jurisdictions
- broader impacts across the economy where barriers to the movement of skilled workers and to the operation of business would remain.

Calculating the present value of yearly impacts

The costs and benefits in this Decision RIS have been calculated on a yearly basis. The impact in each individual year has then been discounted and brought together to calculate an overall present value

for each cost and benefit. Despite the fact that impacts are typically incurred on a continuous basis throughout the year, for the purpose of this analysis it is assumed that all impacts are incurred at the end of the relevant financial year. For example, for impacts incurred in 2012–13, it is assumed that they are fully incurred by 30 June 2013 and are therefore discounted back to 1 July 2012.

The impacts have been calculated on a yearly basis because the impact may vary from one year to the next (i.e. due to industry growth, or transition versus ongoing impacts).

As the underlying data used in calculating the impacts varies across jurisdictions, the impacts have been calculated at a state and territory level. The national impact is then the sum of each of the jurisdictional impacts. Note that due to rounding, the value generated from the calculations in this appendix may not be exactly equal to the numbers quoted in this report.

Net industry growth factor for employment

In the cost—benefit analysis, it is assumed that the number of licensees within the sector in question will change over time, consistent with overall changes in the size of the sector. Within the estimates, a net industry growth rate has been applied to all relevant calculations. To apply this growth rate on a compound basis, a factor has been used. This factor is simply a series of numbers that correspond to each financial year over time. The first ten years of the factors are shown below in Table F.1.

Table F.1: Industry growth factor

Year	2011–12	2012-13	2013-14	2014–15	2015–16	2016–17	2017–18	2018–19	2019–20	2020–21
Factor	1.0000	1.0157	1.0316	1.0478	1.0642	1.0808	1.0978	1.1150	1.1325	1.1502

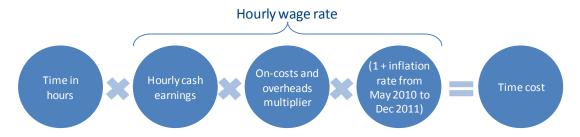
Incorporating this factor, as an input, allows a calculation to account for industry growth in licensees over time. The calculation for the value of a factor in any one year (other than the base year, which is equal to one) is the value of the factor in the previous year multiplied by (1 + 0.0157), as the net industry growth rate for the refrigeration and air-conditioning industry is assumed to be 1.57 per cent. See the tables in the next section of this appendix for more details on the assumptions underlying this calculation.

Note that while it is assumed national licensing would not begin operation until 2013–14, 2011–12 has been used as the base year for the industry growth factor. The licensee numbers assumed for each jurisdiction are based on a range of sources and are not all estimated at the same point in time. Some licensee numbers were provided by jurisdictional regulators as at January – March 2012. However, where data was not available or provided, data collected by PricewaterhouseCoopers for previous work on national licensing in 2009 has been used. While the number of licensees was estimated at different points in time across different jurisdictions, to be conservative and have a consistent base point, the year 2011–12 has been used as the point from which the industry growth factor has been applied.

Time cost as referred to in the calculations in this chapter

The 'time cost' is used in many of the calculations outlined in this chapter. This time cost represents the dollar value of someone's time based on the number of hours spent and the relevant wage rate. The equation used to calculate the time cost is shown in Figure F.1.

Figure F.1: How to calculate the time cost



Calculating the net present value

The equations outlined below provide the calculation for obtaining the yearly impact. For example, if a 10-year net present value is calculated, the yearly impact must first be calculated for each of the ten years of operation assumed (i.e. 2013–14 to 2022–23). The NPV is then calculated as at 1 July 2012. Therefore, it is equal to the sum of the yearly impacts discounted back to 1 July 2012.

Calculating the transition and ongoing costs

In addition to presenting impacts as an NPV over ten years, this Decision RIS reports the non-discounted transition costs and annualised yearly ongoing costs. To calculate the transition costs, the yearly impacts are simply summed together without discounting. To calculate the per annum ongoing impact, the yearly impact has been calculated for the ten years of operation (i.e. years 2013–14 to 2022–23) and the average of those ten years has been taken to gain an annualised ongoing impact per annum.

Estimating transition costs to licence holders

The equation used to calculate the yearly transition cost is shown in Figure F.2. The transition cost is assumed to occur in the year before national licensing is implemented (in 2012–13). The impact in all other years is \$0. This impact applies to all licensees.

Figure F.2: How to calculate transition cost to licensees



Transition cost for government of communicating the changes to the industry and consumers

This cost is based on estimates calculated by Victoria in relation to the communications costs that were incurred when it made changes to the property industry in the state. Half of this cost has been applied to the three states that license refrigeration and air-conditioning work.

This cost is assumed to be transitional and is only incurred in the year before national licensing is implemented (2012–13). The cost in all other years is assumed to be \$0. The direct cost to government assumed in 2012–13 for each jurisdiction can be found in tables in the next section of this appendix. No further calculations have been done to adjust these figures.

Cost to governments of the transition to a national licensing register

The cost of transitioning to a national licensing register is a one-off cost assumed to occur before national licensing is implemented. The equation used to calculate the cost in 2012–13 is shown in Figure F.3. The impact in all other years is assumed to be \$0.

Figure F.3: How to calculate the jurisdictional implementation cost of the register



NLR = national licensing register; RAC = refrigeration and air-conditioning

Cost of establishing and operating the National Occupational Licensing Authority

The cost-benefit analysis assumes that there would be costs to government of establishing and operating the National Occupational Licensing Authority (NOLA). Given that the budget for NOLA is only projected for the first four years of operation, the cost in the fourth year is assumed to represent the ongoing cost in all subsequent years (year five onwards). The cost in the first three years is higher than the ongoing cost due to additional transition costs incorporated into the budget. The transition cost incurred during 2011–12 is assumed to be incurred at the end of the period (consistent with the general approach to the timing of impacts) and hence is not discounted. The ongoing costs are assumed to begin in year 2012–13 and continue into the future. The transition costs in 2012–13 and 2013–14 are therefore assumed to be the difference between the budgeted value and the ongoing cost each year. The equations used to calculate the yearly transition and ongoing cost are set out in Figures F4 and F5. Note that when calculating the impact in year one (2011–12), the budget in year four is not subtracted because 100 per cent of the budget in 2011–12 is assumed to be a transition cost.

In the calculation of these costs, the overall licensing authority budget has been apportioned to the refrigeration and air-conditioning occupation on the basis of advice from the COAG National Licensing Taskforce:

- a percentage of total budget that can be attributed to first-wave occupations (the first four occupations being considered for reform) this is assumed to be 50 per cent
- a percentage of total budget that can be attributed to the refrigeration and air-conditioning occupation specifically (within this first-wave proportion) 2 per cent of the 50 per cent.

The costs to each jurisdiction that license refrigeration and air-conditioning work is estimated based on their relative number of refrigeration and air-conditioning licensees and on the agreed budget contributions to NOLA (as agreed by SCFFR)²⁵. These same proportions have been used to attribute uncommitted funds in the first year of operation (which is included in the first-year overall licensing authority budget).

NOLA costs are based on estimates agreed by SCFFR in April 2012. Further work is underway on establishing a budget for NOLA in the longer term.

Figure F.4: How to calculate the transition cost (first three years only) for the licensing authority



NOLA = National Occupational Licensing Authority; RAC = refrigeration and air-conditioning

Figure F.5: How to calculate the ongoing cost for the licensing authority



NOLA = National Occupational Licensing Authority; RAC = refrigeration and air-conditioning

Removing the need to hold multiple licences across jurisdictions

When a licence is no longer needed, it will impact both new licensees (as they will no longer need to gain a licence) and existing licensees (as they will no longer need to renew their existing licence). The equation used to calculate the yearly avoided cost from no longer needing to hold multiple licences in each jurisdiction is shown in Figure F.6. This impact is calculated separately for contractors versus workers to account for the fact that different licence periods and fees apply to these licensees.

In terms of the time cost to obtain a mutual recognition licence, South Australia has indicated that it would typically take less time for a licensee to obtain such a licence compared to the time that would be taken if the licensee resided in South Australia. On the other hand, case studies provided by – and discussions with – the COAG National Licensing Taskforce suggest that in some cases the time to obtain a licence under mutual recognition can far exceed the time to obtain a licence for those residing in a given jurisdiction. For that reason, this analysis has assumed that mutual recognition is more arduous in the following ways:

- For those first applying for a licence in another jurisdiction, the time cost would increase by a factor of two compared to the time taken to apply if it was one's own jurisdiction, reflecting additional search costs and potential delays imposed on licensees or businesses who are hiring the individual in the other jurisdiction.
- For those renewing a licence under mutual recognition, the time cost of applying for a licence is still assumed to be higher, but only a multiplier of 5 per cent is assumed (which is applied to the assumption of the time to apply for a licence).

The time cost to apply for a licence in this equation is therefore calculated as follows:

 The time cost to apply for a new licence under mutual recognition is two multiplied by the time to apply for a licence in the relevant jurisdiction multiplied by the wage rate in the relevant jurisdiction. • The time cost to apply for a licence renewal under mutual recognition (as used in the renewal calculation) is the time to apply for a licence renewal in the relevant jurisdiction multiplied by 1.05 multiplied by the wage rate in the relevant jurisdiction.

The proportion of licensees renewing each year is equal to one divided by the licence period, as it is assumed that licence renewals are distributed evenly over time across the industry.

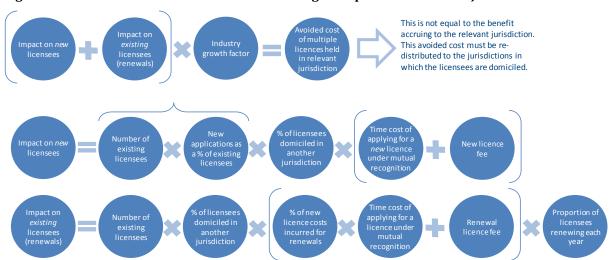


Figure F.6: How to calculate the benefit of removing multiple licences across jurisdictions

The avoided cost calculated in Figure F.6 is not attributable to the jurisdiction for which it is calculated. The avoided cost accrues to the jurisdiction in which the licence holders are domiciled, not the jurisdiction in which they hold the additional licence. For example, where a worker who lives in New South Wales currently holds both a New South Wales and Queensland licence, under national licensing, they would no longer be required to hold a Queensland licence to work in Queensland. The saving from not having to apply for or hold a Queensland licence would be realised by that worker from New South Wales; hence, the benefit is determined as a benefit realised in New South Wales.

In estimates for this Decision RIS, this benefit has been distributed according to the percentage distributions shown in Table F.18. For that reason, the benefit accruing to any one jurisdiction is actually the sum product of the avoided costs for each jurisdiction (calculated as above) and the percentage of multiple licences in each jurisdiction accruing to licensees domiciled in the relevant jurisdiction (i.e. the relevant jurisdiction's column in Table F.19).

Continuing compliance activity on reduced revenue

The savings that are enjoyed by licensees in the refrigeration and air-conditioning industry who no longer have to hold multiple licences have been accounted for by the reduction of fees and effort associated with applying for those licences.

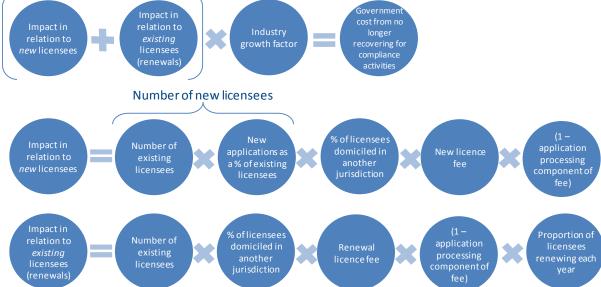
Advice from jurisdictions is that a proportion of those fees are raised to cover compliance activities that currently occur. To ensure that existing compliance activities are able to continue in light of a single licensing system, resources will need to be available to the regulators for each jurisdiction to continue to oversee refrigeration and air-conditioning licensees who are licensed elsewhere but work in each relevant jurisdiction.

The following estimate accounts for this based on the efficiency saving that is used elsewhere of 54 per cent (which represents the application processing component of licence fees), leaving a 46 per cent cost associated with compliance and other related activities for those licensees who no longer hold multiple licences. This component will no longer be recovered through fees, but the activities will still need to be funded by government. Note that in New South Wales, the application processing component of licence fees is estimated based on dollar figures provided by the regulator, rather than the percentage outlined above. For detail on these estimates, see the section titled 'Inputs and assumptions underlying the analysis' below.

The equation used to calculate the yearly impact on government is shown in Figure F.7. This equation is based on the equation for calculating the benefit to licence holders through reduced costs of holding multiple licences. This impact is calculated separately for contractors versus workers to account for the fact that different licence periods and fees apply to these licensees. The proportion of licensees renewing each year is equal to one divided by the licence period, as it is assumed that licence renewals are distributed evenly over time across the industry.

Figure F.7: How to calculate the cost to government from continuing compliance activity for multiple licence holders

[Impact in cost from no cost f



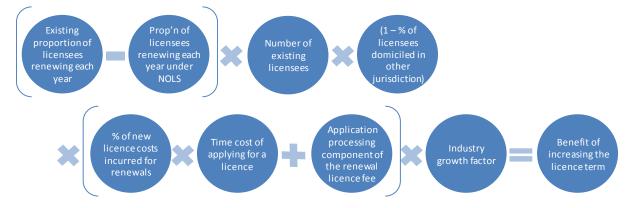
Impact from a consistent licence period of one, three or five years across all jurisdictions

This impact only applies to the renewal of licences and only the application processing component of the fee would be saved (or paid more often) in those jurisdictions with a licence period shorter (or longer) than five years. This component is \$59 in New South Wales and in other jurisdictions is calculated as 54 per cent of the renewal licence fee in the relevant jurisdiction based on a survey of regulators conducted in 2009 relating to refrigeration and air-conditioning licences (see Figures F.8 to F.10 for more details on the assumptions underlying this calculation). Some jurisdictions have suggested that the fixed component of the licence fees may increase. Due to the uncertainty surrounding this information, this factor has not been accounted for in the analysis.

The equation for calculating the yearly impact from a consistent licence period is shown in Figure F.8. The proportion of licensees renewing each year is equal to one divided by the licence

period, as it is assumed that licence renewals are distributed evenly over time across the industry. This impact is calculated separately for contractors versus workers to account for the fact that different licence periods and fees apply to these licensees.

Figure F.8: How to calculate the benefit to licensees of an increase in licence period



Changes in qualification requirements

Changes to qualification requirements affect new licence holders only because competency requirements must be met upon first obtaining a licence. The number of new licensees is based on the number of new applicants in the industry as a percentage of existing licensees. The equation for calculating the impact from changes to qualification requirements is shown in Figure F.9.

Figure F.9: How to calculate the effect of changes to qualification requirements



Savings from removing 'fit and proper' tests as part of personal probity

This impact only applies to new licence holders, as probity requirements are placed on licensees upon first applying for a licence. The equation used to calculate the yearly impact is shown in Figure F.10.

Figure F.10: How to calculate the savings from removing fit and proper tests



Benefit of removal of duplicate testing in Victoria

This impact only applies to new licence holders, as the additional tests must be sat by licensees when first applying for a licence. The equation used to calculate the yearly impact is shown in Figure F.11. This impact is only applicable in Victoria.

Figure F.11: How to calculate the benefit of removing duplicate testing



Labour mobility

The equation for calculating the estimated impact of labour mobility is shown in Figure F.12.

Figure F.12: How to calculate the benefit of labour mobility



Removing experience requirements

This impact applies to all licensees. The equation used to calculate the yearly impact is shown in Figure F.13.

Figure F.13: How to calculate the benefit of removing experience requirements



Business value-add

The impact on business value-add is calculated as one-third of the efficiency impact on labour. The ongoing net efficiency impact on labour includes the time component (not including fees) of the following impacts:

- the introduction of worker licences in Queensland
- the introduction of business contractor licences in Victoria
- changes to qualification requirements
- the removal of fit and proper tests
- removal of restricted refrigeration and air-conditioning (split systems) licences in Victoria
- the removal of duplicate testing
- consistent licence period

- the removal of multiple licences across jurisdictions
- the removal of experience requirements
- the removal of the licensing of workers and contractors (only under the relevant models).

The one-off efficiency cost to labour includes the time component (not including fees) of understanding national licensing.

Removing the requirement to hold a licence

Under two of the options considered in this consultation RIS, certain licences would no longer be required:

- Under no licensing (except for the Commonwealth Arctick licence), all licences for refrigeration and air-conditioning work would no longer be required.
- Under national licensing model B, all worker licences for refrigeration and air-conditioning work would no longer be required.

The equation used to calculate the benefit to licensees from removing licensing is shown in Figure F.14.

Benefit of existing removing growth new licensing for Number of new licensees Number of New licence the category applying for fee existing removed Number of % of new Renewal existing the category applying for incurred for renewing being a licence emoved

Figure F.14: How to calculate the effect of removing licensing

Introducing the requirement to hold a licence

Under the national licensing models, certain licensees would need to obtain a licence where they did not before:

• Under national licensing models A and B, businesses in Victoria undertaking refrigeration and air-conditioning work would need to obtain a contractor licence and the number of contractor licensees in Queensland would increase.

• Under national licensing model A, workers in Queensland undertaking refrigeration and airconditioning work would need to obtain a licence.

The equation used to calculate the cost to licensees from introducing licensing is shown in Figure F.15.

Industry existing introducing growth new licensing for factor that categor Number of new licensees Number of New Impact on applications New licence applying for new the category licensees being existing a licence . Number of % of Impact on % of new Time cost of existing licence costs Renewal the category applying for renewing incurred for licence fee being a licence (renewals) ntroduce under NI

Figure F.15: How to calculate the effect of introducing licensing

Inputs and assumptions underlying the analysis

Assumptions in the cost-benefit analysis

The following tables provide details on all the key data sources and assumptions made in the impact analysis for this Decision RIS. In some areas assumptions have been made where data is not readily available. Where these assumptions are made, the method for making the assumption is explained in the text and tables below.

In Victoria there is no contractor licence for refrigeration and air-conditioning work. Victoria does, however, make the distinction between a full licence holder and a registered tradesperson. While both of these licence categories allow an individual to contract with the public, for the purposes of presenting information in this section, full licence holders have been grouped with contractors, and registered tradespersons have been grouped with workers.

Real discount rate

All future cost and benefit cash flows will be discounted to 2012 dollars using a real discount rate of 7 per cent in line with the requirements of the *Best practice regulation handbook,* which also recommends sensitivity testing using 3 per cent and 10 per cent discount rates.²⁶

 $^{^{26}}$ Australian Government 2010, Best practice regulation handbook, Canberra, p. 66.

Table F.2: Discount rate and sensitivities

Assumption	Unit	Value	Source
Discount rate			
Real discount rate	% per annum	Headline: 7% Sensitivity: 3%, 10%	Australian Government 2010, Best practice regulation handbook, Canberra, p. 66.

Evaluation period

The *Best practice regulation handbook* states that 'the total period [of evaluation] needs to be long enough to capture all potential costs and benefits of the proposal' and provides guidance that 'in view of the difficulty of forecasting costs and benefits over long periods, exercise caution when adopting an evaluation period longer than 20 years'.²⁷ Accordingly, an evaluation period of ten years has been used, with sensitivity testing using 15 and 20 years.

COAG has agreed that the first stage of national licensing will commence in 2013.²⁸

It is assumed for this analysis that the exact start date would be 1 July 2013.

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²⁷ Ibid

²⁸ Phase 1 of national licensing includes the following occupational areas: electrical, plumbing, property and airconditioning and refrigeration mechanics.

Table F.3: Timing of analysis

Assumptions	Unit	Value	Source
Timing			
Operating start date	date	1 July 2013	Unpublished advice provided by COAG National Licensing Taskforce
Evaluation period	years	Headline: ten years Sensitivity: 15, 20 years	Assumption based on advice in Australian Government 2010, Best Practice Regulation Handbook' p. 63.

Wage rate

A jurisdiction-specific wage rate has been used in the analysis, based on data available from the Australian Bureau of Statistics relating to employee earnings and hours.²⁹

Hourly cash earnings

Data on hourly cash earnings for refrigeration and air-conditioning employees has been sourced from the Australian Bureau of Statistics, *Employee earnings and hours*, cat. no. 6306.0, using the Australian and New Zealand Standard Classification of Occupations (ANZSCO) codes.

There is no ANZSCO code specific to the refrigeration and air-conditioning industry. As a result, plumbing has been used as a proxy. According to the ANZSCO code 334, plumbers install, maintain and repair pipes, drains, guttering and metal roofing, mechanical services and related equipment for water supply, gas, drainage, sewerage, heating, cooling and ventilation systems.

ANZSCO suggests that an indicative skills level for this occupation is an Australian Qualifications Framework Certificate III, including at least two years of on-the-job training, or an Australian Qualifications Framework Certificate IV.³⁰ It is also noted that in some cases, at least three years of relevant experience may substitute for the formal qualifications listed above.

The hourly cash earnings rates below are based on ordinary time worked per person (excluding overtime), based on the specific hours worked in each jurisdiction.³¹

It is assumed that as the activities involved with national licensing are ancillary to employment, the opportunity cost of time is the wage rate that can be earned in the industry (i.e. hourly cash earnings).

²⁹ Australian Bureau of Statistics 2010, Employee earnings and hours, cat. no. 6306.0, May

Australian Bureau of Statistics, ANZSCO – Australian and New Zealand Standard Classification of Occupations, First Edition, Revision 1

³¹ Australian Bureau of Statistics 2010, Employee earnings and hours, cat. no. 6306.0, May

On-cost and overheads

According to the Australian Bureau of Statistics labour costs survey (2002–03) an on-costs multiplier of 1.172 is appropriate for the 'electricity, gas and water supply' industry, ³² which includes:

- employee earnings
- superannuation
- payroll tax
- worker's compensation
- fringe benefits tax.³³

In the absence of any other information, the Victorian *Guide to regulation* suggests that an overheads multiplier of 1.5 is appropriate.³⁴ The Victorian Competition and Efficiency Commission suggests that overhead costs include building costs (floor space, fixtures, fittings and maintenance and services), equipment, consumables, IT and other support services, administrative support and corporate overheads (senior management, corporate finance, human resources and legal services).

Due to the characteristics of this industry, including a high proportion of self-employed individuals who have lower overheads and fewer on-costs (i.e. no payroll tax and superannuation benefits), an overheads and on-cost multiplier of 1.5 is applied to the hourly cash earnings assumed for refrigeration and air-conditioning mechanics.

Inflation rate

In order to inflate the hourly cash rates to 2012 dollars, the national consumer price index (CPI) for the period March 2010 to March 2012 has been used based on data from the Australian Bureau of Statistics (cat. no. 6401.0).³⁵ Note that the national CPI figures have been used.

While ideally the wage rates would be inflated to 1 July 2012 (as the NPV is calculated as at 1 July 2012), the most recent data available when writing this report was CPI figures from March 2012.

The 'electricity, gas and water supply' industry is the closest available proxy for the refrigeration and air-conditioning occupation.

³³ Australian Bureau of Statistics, Labour costs, Australia 2002–03, cat. no. 6348.0.55.001

³⁴ Department of Treasury and Finance (Victoria) 2011, Victorian guide to regulation, Edition 2.1, Melbourne.

³⁵ March 2010 is the closest figure available to May 2010.

Table F.4: Wage rate assumptions

Assumption	Unit	Value	Source				
Hourly cash earnin	Hourly cash earnings						
NSW	\$ per hour	\$28.20	Australian Bureau of Statistics 2010, Employee earnings and hours, cat. no. 6306.0, May, Australian and New Zealand Standard Classification of Occupation (ANZSCO) Code 334 'Plumbers', Table 1B Note: Based on 'ordinary time per person' (excluding overtime)				
Vic	\$ per hour	\$25.90	Australian Bureau of Statistics 2010, Employee earnings and hours, cat. no. 6306.0, May, Australian and New Zealand Standard Classification of Occupation (ANZSCO) Code 334 'Plumbers', Table 1C Note: Based on 'ordinary time per person' (excluding overtime)				
Qld	\$ per hour	\$31.60	Australian Bureau of Statistics 2010, Employee earnings and hours, cat. no. 6306.0, May, Australian and New Zealand Standard Classification of Occupation (ANZSCO) Code 334 'Plumbers', Table 1D Note: Based on 'ordinary time per person' (excluding overtime)				
On-costs and overh	l neads multiplie	ſ					
On-costs and overheads multiplier	Multiplier	1.5	Assumption based on Australian Bureau of Statistics labour cost survey data and guidance material from the Victorian Competition and Efficiency Commission				
Inflation rate (Mar	Inflation rate (March 2010 to March 2012)						
Inflation rate	%	4.97%	Australian Bureau of Statistics 2012, Consumer Price Index – Australia, cat. no. 6401.0, 2012 Note: Inflation index from March 2010 (index number of 171.0) to March 2012 (index number of 179.5).				

Industry growth rates (employment)

The net industry growth rate represents the number of people leaving and entering the industry per year.

The proportion of new applicants only takes into consideration the number of new entrants in the industry. For this rate, in the absence of jurisdiction-specific information, a national figure based on data from the Australian Bureau of Statistics labour mobility survey has been used in the cost—benefit analysis. The 'electricity, gas, water and waste services' industry is the closest available proxy for the refrigeration and air-conditioning occupation.

Table F.5 Industry growth rates (employment)

Assumptions	Unit	Value	Source
Net industry growt	h – national		
Total	% per annum	1.567%	IBISWorld 2012, <i>Air conditioning and heating services in Australia</i> , Industry Report (E4233), April, 'Annual change in employment', p. 36.
			Average of current and projected rates for 2011–12 to 2016–17. This growth rate is based on national industry statistics and does not consider jurisdiction-specific circumstances.
Proportion of new	applicants in th	ne industry (no	ew applicants as a proportion of existing licensees)
NSW, Vic and Qld	% per annum	4.07%	Australian Bureau of Statistics 2010, <i>Labour mobility</i> , February, cat. no. 6209.0, Table 7, page 23.
			Calculated as the number of employees who entered into a different industry division in the last 12 months, as a proportion of the total number of employees in the 'electricity, gas, water and waste services' industry during that time.

Licence fees

The licence fees presented in Table F.6 are the current fees under the existing jurisdiction-based licensing schemes.

Table F.6: Licence fees

Assumption	Unit	Value	Source
Cost of licence	fee – contrac	tor	
NSW	\$ per licensee	\$604.63	Based on information provided by NSW regulator on 29 February 2012 Weighted average used for individuals (\$521 for 3,410 licensees), partnerships (\$756 for 191 licensees) and corporations (\$885 for 914 licensees)
Vic (full licence holders)	\$ per licensee	\$308.25	Plumbing Industry Commission, Licensing and registration Application fee (\$47) and registration fee (\$261.25)
Qld	\$ per licensee	\$1,097.08	IBISWorld 2012, Air conditioning and heating services in Australia, Industry Report (E4233), April Queensland Building Services Authority, Schedule of fees Licence fees are applied according to a contractor's annual turnover. It is assumed for this analysis that the average annual turnover in Queensland is \$577,067. This was calculated by multiplying the total annual revenue in the air-conditioning and heating services industry attributed to non-heating-specific services (70 per cent of \$4.7 billion) by the percentage employed in this industry in Queensland (24.1%) and dividing by the total number of contractor licensees in Queensland (1,374). The average annual turnover equates to a Category 1-3 licence. New licence fees are calculated as an average of individual and company fees. New licence fees for individuals total \$782, including a \$328.65 annual licence fee and a \$453.20 application fee. New licence fees for companies total \$1,412, including a \$658.60 annual licence fee and a \$753.70 application fee.

Assumption	Unit	Value	Source			
Cost of licence	Cost of licence fee – full licence holder (occupational licensees)					
NSW	\$ per licensee	\$192.89	Based on information provided by NSW regulator on 29 February 2012 Weighted average used for qualified supervisor certificate holders (\$193 for 2,507 licensees) and tradesperson certificate holders (\$126 for 4 licensees).			
Vic	\$ per licensee	\$341.70	Plumbing Industry Commission, Licensing and registration Application fee (\$47) and registration fee (\$294.70)			
Qld	\$ per licensee	N/A	Workers are not licensed in Queensland. This analysis does not account for gas work licence (hydrocarbon refrigerants) licensees.			

Table F.7: Renewal licence fees

Assumption	Unit	Value	Source				
Cost of renewa	Cost of renewal licence fee – contractors						
NSW	\$ per licensee	\$544.73	Based on information provided by NSW regulator on 29 February 2012 Weighted average used for individuals (\$521 for 3,410 licensees), partnerships (\$756 for 191 licensees) and corporations (\$885 for 914 licensees)				
Vic (full licence holders)	\$ per licensee	\$261.25	Plumbing Industry Commission, Licensing and registration Registration fee (\$261.25)				
Qld	\$ per licensee	\$493.62	IBISWorld 2012, Air Conditioning and Heating Services in Australia, Industry Report (E4233), April				
			Queensland Building Services Authority, Schedule of fees Licence fees are applied according to a contractor's annual turnover. It is assumed for this analysis that the average annual turnover in Queensland is \$577,067. This was calculated by multiplying the total annual revenue in the airconditioning and heating services industry attributed to non-heating specific services (70 per cent of \$4.7 billion) by the percentage employed in this industry in Queensland (24.1%) and dividing by the total number of contractor licensees in Queensland (1,374). The average annual turnover equates to a Category 1-3 licence.				
			Renewal fees are calculated as an average of individual (\$328.65) and company (\$658.60) one year licence fees in category 1-3.				
Cost of renewa	I licence fee	- full licence h	nolder (occupational licensees)				
NSW	\$ per licensee	\$0	Based on information provided by NSW regulator on 29 February 2012 Note: The NSW regulator has advised that this fee is under review, but as at March 2012 there is no fee associated with the renewal of worker licences. Despite this, a cost to government of processing renewals of \$59 has been assumed for the purposes of calculating government savings. This cost would cover activities such as sending renewal notices to licensees.				
Vic (Registered tradesperson s)	\$ per licensee	\$294.70	Plumbing Industry Commission 2012, Licensing and registration				
Qld	\$ per licensee	N/A	Workers are not licensed in Queensland. This analysis does not account for gas work licence (hydrocarbon refrigerants) licensees.				

Processing component of licence fees

Table F.8: Processing application component of new licence fees

Assumption	Unit	Value	Source			
Processing app	Processing application component of new licence fees					
Processing fee component (other than NSW)	%	54.44%	PricewaterhouseCoopers 2009, Estimating financial impacts of the national occupational licensing system: final report, 2009, p. 24 Based on estimates of the efficient processing component of licence fees from a survey of regulators undertaken in 2009 (specific to licensing of the refrigerated air-conditioning occupation). Estimate percentage based on licence processing cost as a proportion of fee revenue.			
NSW – contractors	\$	\$130.96	Based on information received from NSW regulator on 29 February 2012			
NSW – workers	\$	\$74.97	Based on information provided by NSW regulator on 29 February 2012 Weighted average used for qualified supervisor certificate holders (\$75 for 2,507 licensees) and tradesperson certificate holders (\$59 for four licensees).			

Table F.9: Processing application component of renewal licence fees

Assumption	Unit	Value	Source				
Processing app	Processing application component of renewal licence fees						
Processing fee	%	54.44%	PricewaterhouseCoopers 2009, Estimating financial impacts of the national occupational licensing system: final report, 2009, p. 24				
component (other than NSW)			Based on estimates of the efficient processing component of licence fees from a survey of regulators undertaken in 2009 (specific to licensing of the refrigerated air-conditioning occupation). Estimate percentage based on licence processing cost as a proportion of fee revenue.				
NSW – contractors	\$	\$59	Based on information received from NSW regulator on 29 February 2012				

Number of licensees

Total licensees are the addition of contractor/full licence holders and worker/registered tradesperson licensees.

Table F.10: Number of existing licensees - contractors/full licence holder

Assumption	Unit	Value	Source	
Total existing contractors				
NSW	# licensees	4,515	Unpublished data provided by NSW regulator 29 February 2012 3,410 individual, 191 partnership and 914 corporate contractor licensees	
Vic (Full licence holders)	# licensees	2,245	Unpublished data provided by VIC regulator 23 February 2012. 976 licences in the specialised class of refrigerated air-conditioning and 1,269 in the restricted class of refrigerated air-conditioning.	
Qld	# licensees	2,178	Based on data provided by Queensland in June 2012. This analysis does not account for gas work licence (hydrocarbon refrigerants) licensees.	

Table F.11: Number of existing licensees - workers/registered tradespersons

Assumption	Unit	Value	Source			
Total existing li	Total existing licensees – full licence holder (occupational licensees)					
NSW	# licensees	2,511	Unpublished data provided by NSW regulator 29 February 2012 2,507 qualified supervisor certificate holders and four tradesperson certificate holders			
Vic (Registered tradesperson s)	# licensees	1,255	Unpublished data provided by VIC regulator 23 February 2012. 719 registrations in the specialised class of refrigerated air-conditioning and 536 registrations in the restricted class of refrigerated air-conditioning.			
Qld	# licensees	N/A	Refrigerated air-conditioning workers are not licensed in Queensland. This analysis does not account for gas work licence (hydrocarbon refrigerants) licensees.			

Frequency of renewal of licence

For jurisdictions with the option of a one- or three-year licence term, there is assumed to be no impact from the move to a consistent licence term under national licensing of one or three years. There are, however, a number of other calculations in this cost—benefit analysis that are somewhat affected by the frequency of licence renewal. In these instances, for simplicity, the assumption is that renewals generally occur every three years in jurisdictions that offer licensees a choice of term up to three years.

Table F.12: Current frequency of renewal - refrigerated air-conditioning

Assumption	Unit	Value	Source			
Current freque	Current frequency of renewal (i.e. 'licence period') – contractor					
NSW	years	3 (or 1)	NSW Fair Trading, 2011, Home building fees For the purposes of this analysis, it is assumed that all licensees would adopt a three year licence.			
Vic (Full licence holders)	years	1	Plumbing Industry Commission, <i>Licensing and registration fees</i> , viewed 24 May 2012			
Qld	years	1	Queensland Building Services Authority, Schedule of fees			
Current freque	ncy of renewal	(i.e. 'licence p	period') – full licence holder (occupational licensees)			
NSW	years	3	NSW Fair Trading, 2011, Home building fees			
Vic (Registered tradesperson s)	years	3	Plumbing Industry Commission, <i>Licensing and registration fees</i> , viewed 24 May 2012			
Qld	years	N/A	Refrigerated air-conditioning workers are not licensed in Queensland. This analysis does not account for gas work licence (hydrocarbon refrigerants) licensees.			

Time cost of applying for a licence

Note that this time cost only applies to licences applied for in a licensee's home jurisdiction. Applying for a licence under mutual recognition is assumed to take longer due to additional search costs. The assumptions under mutual recognition are outlined below.

Table F.13: Time cost of applying for a contractor/full licence holder and worker/registered tradesperson licence

Assumptions	Unit	Value	Source			
Time cost of applying f	Time cost of applying for a licence – all licences					
NSW	Hours per licensee	0.58 hours (35 minutes)	Productivity Commission 2011, Performance benchmarking of Australian business regulation: cost of business registrations, cost of registering a domestic builder, pp. 121, 124 and 125			
			Includes cost of obtaining information and forms, completing forms, lodging forms, paying fees and attending interviews (if applicable)			
Vic	Hours per licensee	3.83 hours (230 minutes)	Productivity Commission 2011, Performance benchmarking of Australian business regulation: cost of business registrations, cost of registering a domestic builder, pp. 121, 124 and 125			
			Includes cost of obtaining information and forms, completing forms, lodging forms, paying fees and attending interviews (if applicable)			
Qld	Hours per licensee	0.37 hours (22 minutes)	Productivity Commission 2011, Performance benchmarking of Australian business regulation: cost of business registrations, cost of registering a domestic builder, pp. 121, 124 and 125			
			Includes cost of obtaining information and forms, completing forms, lodging forms, paying fees and attending interviews (if applicable)			

Time cost of renewing a licence

It is assumed that renewing a licence is less onerous than applying for a new licence. A proxy based on the estimated effort to government (as illustrated by the renewal/new fee differential) has been used for illustrative purposes. The figures below are used to reduce the time component associated with applying for a licence. For example, in New South Wales it is assumed that it takes 31.5 minutes (90 per cent of 35 minutes) to renew a licence.

These percentages also apply under mutual recognition; however, further assumptions apply under mutual recognition and are outlined below.

Table F.14: Percentage of new licence costs incurred on renewal

Assumption	Unit	Value	Source			
Fee differential between	Fee differential between renewal and new licences – contractor					
NSW	%	90%	Based on licence fee data – renewal fee over new licence fee			
Vic	%	85%	Based on licence fee data – renewal fee over new licence fee			
Qld	%	45%	Based on licence fee data – renewal fee over new licence fee			
Fee differential between	en renewal and n	ew licences – full lice	nce holder (occupational licensees)			
NSW	%	90%	Based on contractor licence fee data – renewal fee over new licence fee – as there is no renewal fees set for workers in NSW			
Vic	%	86%	Based on licence fee data – renewal fee over new licence fee			
Qld	%	N/A	Refrigerated air-conditioning workers are not licensed in Queensland. This analysis does not account for gas work licence (hydrocarbon refrigerants) licensees.			

Transition costs for industry

Under national licensing, transition costs would be imposed on industry. Specifically, licensees would need to understand the changes and how they are affected. Time costs would be incurred either by reading material, attending an information seminar or through some other means.

Based on feedback from the consultation process, it is assumed that it would take each licensee 90 minutes to understand the changes. It is assumed that this time cost is incurred before the implementation of the national licensing system in 2012–13.

Table F.15: Industry transaction costs

Assumption	Unit	Value	Source				
Industry transition	Industry transition costs (time to understand national licensing)						
Time	Hours per licensee	1.5 hours	It is assumed it will take each licensee 90 minutes to understand the changes				

Mutual recognition

Victoria has indicated that it would typically take less time for a licensee to apply for and renew a licence under mutual recognition compared with the time that would be taken if the licensee resided in their own jurisdiction. However, case studies provided by – and discussions with – the COAG National Licensing Taskforce suggest that in some cases the time to obtain mutual recognition of a licence can far exceed the time to obtain a licence for those residing in a given jurisdiction. This reflects additional search costs and potential delays associated with gaining mutual recognition. For that reason, this analysis assumes that obtaining a mutual recognition licence in a particular jurisdiction takes twice as long as it would for a person residing in that jurisdiction.

Table F.16: Time cost associated with obtaining a mutual recognition licence (multiplication factor)

Assumptions	Unit	Value	Source		
Time cost to apply for a new licence under mutual recognition					
Refrigerated air- conditioning	Multiplication factor	2	Assumption based on information provided by the COAG National Licensing Taskforce and from jurisdictional regulators		

Case studies provided by – and discussions with – the COAG National Licensing Taskforce suggest that licence applications are more onerous under mutual recognition, including for renewals. For that reason, this analysis has assumed that renewing a mutual recognition licence takes 5 per cent more time than the time taken to renew a licence for those residing in a jurisdiction (over and above the time to apply for a licence – see above).

Table F.17: Additional time cost upon renewal due to mutual recognition

Assumptions	Unit	Value	Source		
Additional time cost due to mutual recognition (renewal only)					
Refrigerated air- conditioning	% per licence	5%	Assumption based on information provided by the COAG National Licensing Taskforce and from jurisdictional regulators		

Removal of requirement to hold multiple licences across jurisdictions

Table F.18: Percentage of licensees domiciled in another jurisdiction

Assumptions	Unit	Value	Source				
Percentage of lic	ensees don	niciled in another jur	r jurisdiction				
NSW	%	3.87%	Unpublished data provided by the COAG National Licensing Taskforce, 27 July 2011. Data provided was consolidated across all occupations.				
Vic	%	1.44%	Unpublished data provided by Victoria received January 2012				
Qld	%	4.45%	Unpublished data provided by the COAG National Licensing Taskforce, 27 July 2011. Data provided was consolidated across all occupations.				

Given that the exact distribution of multiple licence holders across distributions is unknown, migration flows from 2010–11 have been used as a proxy. The percentages have been calculated based on migration numbers provided in Australian Bureau of Statistics 2011, *Australian demographic statistics'*, cat. no. 3101.0, June quarter, Table 19 – Interstate migration 2010–11.

Table F.19: Estimated distribution of licence holders who hold a licence, domiciled in another jurisdiction

		Jurisdiction in which licence holders are domiciled			
		NSW	Vic	Qld	
Jurisdiction in which	NSW		24%	42%	
the multiple licences are held	Vic	36%		28%	
	Qld	48%	22%		

Note: Based on ABS data as a proxy.

Experience requirements

Under national licensing, experience requirements for all refrigerated air-conditioning licence holders would be removed, meaning that some licensees could obtain their qualification sooner. For the purposes of this analysis, it is assumed that a wage differential of 50 cents per hour can be attributable to this reform.

The actual experience requirements in each jurisdiction vary. To provide an estimate of the potential benefit, we have assumed a conservative estimate of one year for all jurisdictions. While some jurisdictions may have a longer experience requirement, the methodology used in this analysis is to attribute the benefit across only one year.

Table F.20: Benefits associated with the removal of experience requirements

Assumptions	Unit	Value	Source		
Assumed wage differential attributable to experience requirement that will be eliminated by removal of experience requirement					
All jurisdictions	\$ per licensee	\$0.50 per hour	Assumption used in this report for indicative purposes		
Years of experience rec	quired				
All jurisdictions (where an experience requirement exists)	Years per licensee	1 year	Assumption used in this report for indicative purposes		
Working hours per year					
All jurisdictions	Hours per licensee	1,800	Assumption based on 7.5 working hours per day, 5 working days per week, 48 working weeks per year		

Improved labour mobility

To provide an indication of the potential benefit due to an increase in labour mobility as a result of national licensing, this Decision RIS draws on the work undertaken in this area by the Productivity Commission. For the purposes of this analysis, the following assumptions have been used to calculate an indicative estimate.

Table F.21: Increase in real GDP due to national licensing

Assumption	Unit	Value	Source			
Increase in real GDP du	Increase in real GDP due to national licensing					
Increase in real GDP due to full labour mobility	%	0.3%	Productivity Commission 2009, Review of mutual recognition schemes: research Report, Canberra, p. 73.			
Proportion of full labour mobility attributable to national licensing	%	10%	The aim of this estimate is to provide an indication of the potential impact in the context of mutual recognition, which has partly facilitated labour mobility under the base case			

Table F.22: Real GDP

Assumption	Unit	Value	Source
Real GDP			
National real GDP in 2011	\$	\$1.335 trillion	Australian Bureau of Statistics 2011, Australian national accounts: national Income, expenditure and product (gross domestic product, chain volume measures), cat. no. 5206.0, Dec

Table F.23: The refrigerated air-conditioning industry as a proportion of Real GDP

Assumption	Unit	Value	Source			
Proportion of the labo industry	Proportion of the labour mobility benefit (i.e. the change in real GDP) attributable to the refrigerated air-conditioning industry					
National	%	0.1%	This percentage is based on the total number of refrigerated airconditioning licensees as a proportion of the total number of registered tradespersons employed in Australia. Total employed persons as at March 2012 was 11.49 million, and there are approximately 12,700 refrigerated air-conditioning licensees (see licence numbers above).			
			Total employed persons: Australian Bureau of Statistics 2012, Labour force, Australia (Labour force status by sex), Catalogue No. 6202, March			
Registered workers as a percentage of total employed persons	%	18%	Productivity Commission 2009, Review of Mutual Recognition Schemes, Research Report, Canberra, page 48			

Business Value Add (capital efficiency)

This benefit relates to the expectation that if reforms lead to more efficient refrigeration and air-conditioning services – as would be expected if unnecessary licensing burdens are removed – then business will benefit from the value-add generated by a more efficient labour force.

The approach taken is to assume a ratio between the benefits to labour that sells refrigeration and air-conditioning services and the benefits to consumers buying those services. The ratio of benefits to wages relative to benefits to profits is determined by using the ratio of labour to capital. For the purpose of this Decision RIS, the impact (benefits and costs) to businesses and households that buy

refrigeration and air-conditioning services is assumed to be one-third of the direct impact to licensees, as shown in Table F.24.

Table F.24: Capital efficiency as a proportion of estimated labour efficiency

Assumption	Unit	Value	Source		
Capital efficiency as a proportion of estimated labour efficiency					
All jurisdictions	%	1/3 (i.e. 33.3%)	Assumption based on Australian Bureau of Statistics 2011, Australian System of National Accounts 2010–11, Cat. No. 5204.0, ABS, Canberra		

Change in qualification requirements

Changes to training requirements

Table F.25: Changes to training requirements - contractor/full licence holder

Assumptions	Unit	Value	Source
Training fees			
Vic	\$ per unit hour	\$2.08	NMIT, Fees and charges – VET Victoria University, Enrolment fees and charges Unit hour fees are calculated as the average of NMIT (\$2.00) and Victoria University (\$2.17) fees.
Training time cos	st .		
Vic	Hours	160	Plumbing Industry Commission, Licence competency requirement Victoria University, Certificate IV in Plumbing and Services To pass the licence assessment and move from being a Certificate III registered tradesperson for mechanical services to a full licence holder the following training competency is required: BCPMS4001A – Plan, size and layout heating and cooling systems.

Table F.25a: Changes to training requirements – restricted refrigeration and air-conditioning licence splits contractor/full licence holder

Assumptions	Unit	Value	Source		
Training fees	Training fees				
Vic Cost of certificate III	\$ per annum	\$400	Based on advice from Plumbing Industry Commission Victoria contact, a Certificate III costs \$400 per year		
Vic Number of years to attain Certificate III	Number of years	3	According to Holmesglen, a Certificate III takes on average three years to complete. The full cost of a Certificate III is calculated based on the dollars per annum and the number of years to attain, meaning the total cost is \$1,200 (\$400 multiplied by three years)		
Vic Cost of Certificate II	\$	\$450	Based on advice from Plumbing Industry Commission Victoria contact, a Certificate II costs \$400–\$500		
Training time cos	Training time cost				

Assumptions	Unit	Value	Source
Vic Certificate III	Hours	800	Based on advice from the Plumbing Industry Commission Victoria, a Certificate III takes 600–1,000 hours to complete. According to TAFE NSW, it takes 864 hours. The assumption of 800 has been used as an approximate average
Vic Certificate II	Hours	300	Based on the average number of hours required to complete a Certificate II qualification (Air-conditioning split systems) at the Canberra Institute of Technology (280 hours), and TAFE NSW (320 hours). An average of 300 is assumed

Table F.26: Changes to training requirements – unlimited design licensees

Assumptions	Unit	Value	Source		
Training fees					
Qld	\$ per course	\$5,196	RMIT University, TAFE fees for government subsidised places The assumed cost of completing an extra 1,200 nominal hours of study at the rate of \$4.33 per hour		
Training time cos	Training time cost				
Qld	Hours	1,200	RMIT University, Advanced Diploma of Engineering Technology Nominal course hours are 1,400, of which a qualified tradesman with a Certificate III can claim 200 hours towards this program		
Licensees holding	Licensees holding an unlimited design licence				
Qld	# of licensees	558	Based on data provided by Queensland in June 2012		

Changes to business competency training qualifications

Table F.27: Changes to business training requirements – contractor/full licence holder

Assumptions	Unit	Value	Source
Training fees			
Vic	\$ per unit hour	\$2.08	NMIT, Fees and charges – VET Victoria University, Enrolment fees and charges Unit hour fees are calculated as the average of NMIT (\$2.00) and Victoria University (\$2.17) fees.
Qld	\$ per course	\$273	Master Builders Association, Business management course Satellite College, College courses Institute of Business Excellence, Business management course Calculated as the average of the course fees for Master Builders Association (\$295), Satellite College (\$235) and Institute of Business Excellence (\$290)
Training time cos	sts		
Vic	Hours per course	124	NMIT, Certificate IV in Plumbing Victoria University, Certificate IV in Plumbing and Services Outlines the following time costs for these units: BCPCM4001A – Carry out work based risk control processes – 24 hours BCPCM4002A – Estimate and cost work – 40 hours BSBSBM401A – Establish business and legal requirements – 60 hours Total extra time required is 124 hours
Qld	Hours per course	15	Master Builders Association, Business management course Institute of Business Excellence, Business management course Business management courses require two days attendance. One day is assumed to be 7.5 hours

Introducing worker licences in Queensland

The fees estimated in Table F.28 do not represent the exact fees necessarily expected under national licensing. These fees were calculated in order to provide an indicative estimate of the introduction of worker licences in Queensland.

Table F.28: Number of licensees and fees payable by workers in Queensland under national licensing

Assumptions	Unit	Value	Source	
Number of worker lie	censees			
Qld	Number of licensees	4,000	Queensland estimate, provided in June 2012	
New licence fee for v	vorkers			
Qld	\$ per licensee	\$332	Based on the fees for fire occupational licensees. A new fire occupational licence is only offered as a one year licence. As a three year licence would be offered under national licensing, the fee assumed for this analysis is the three year licence fee component of the renewal fee (\$238.45) plus the initial application fee for a one year licence (\$93.55)	
Renewal licence fee for workers				
Qld	\$ per licensee	\$238.45	Based on the fees for fire occupational licensees. Renewal fee for a three year licence	

Introducing contractor licences in Victoria under national licensing

Table F.29: Number of business contractor licensees under national licensing

Assumptions	Unit	Value	Source	
Number of business contractor licensees expected under national licensing				
Vic	Number of licensees	1,134	Prorated from total Victorian licensees, based on the proportion of contractor licensees that are businesses in New South Wales	

Increasing contractor licences in Queensland under national licensing

Table F.30: Increase in contractor licensees

Assumptions	Unit	Value	Source		
Percentage increase in contractors expected under national licensing					
Qld	%	25%	Queensland estimate, provided in June 2012		

Number of 'worker' licences removed under partial regulation

Table F.31: Number of licensees no longer required to obtain a licence

Assumptions	Unit	Value	Source		
Number of 'worker'	Number of 'worker' licensees				
NSW	Number of licensees	2,511	The number of worker licensees, as outlined above		
Vic	Number of licensees	1,251	Given that all licensees can contract with the public in Victoria even if they choose not to, the proportion that are likely not to contract under national licensing model B is based on the proportion of workers to total licensees in NSW. This proportion (35.74%) is applied to the total number of licensees in Victoria (3,500)		

Changes to personal probity requirements

Table F.32: Changes to personal probity for contractor/full licence holder

Assumptions	Unit	Value	Source		
Changes to person	Changes to personal probity for contractor/full licence holder				
	Minutes per licensee	10	Fit and proper checks were identified as a requirement for refrigerated air-conditioning operators in NSW by the COAG National Licensing Taskforce in undertaking a mapping exercise which identified the differences between state and territory licensing requirements and the requirements proposed under national licensing.		
			It is assumed that it would take ten minutes to disclose information in order to meet the declaration required. It is expected that some individuals will take less than ten minutes (i.e. if they do not have anything to disclose), and some may take longer (i.e. if they have many items to disclose). This variation is accounted for by using an average figure.		
Vic	Minutes per licensee	20	Assumption based on the requirement to be a 'Fit and proper person'. It is assumed that this requirement would be met by providing two references. Fit and proper checks were identified as a requirement for refrigerated air-conditioning operators in Victoria by the COAG National Licensing Taskforce in undertaking a mapping exercise that identified the differences between state and territory licensing requirements and the requirements proposed under national licensing.		
			Based on a PricewaterhouseCoopers study, it is estimated that 30 minutes is required for an applicant to obtain a passport photo and two written references (PwC, Private Security Regulations 2005: Regulatory Impact Statement, April 2005, page 29). In the absence of any other information, we have assumed that two thirds of this cost is attributable to obtaining two written references (i.e. 20 minutes).		

Duplicate testing in Victoria

Based on advice from the Victorian Plumbing Industry Commission, it is assumed that all applicants must complete one assessment. The commission advised that licensees generally only undertake either the registration or licence exam. For the purpose of this analysis we have assumed that each applicant will sit a three-hour test (based on the time to complete the licence exam as no

information on the time to complete a registration exam was found on the Plumbing Industry Commission's website), and an average fee across the two common tests has been applied.

Table F.33: Removal of duplicate testing requirements in Victoria

Assumptions	Unit	Value	Source		
Time cost for all new	Time cost for all new licensees				
Time to sit test	Hours per licensee	3 hours	Plumbing Industry Commission, Licence (theory) test Note that no time information was provided on the commission's website for the registration exam, so the time to sit the licence exam has been used		
Fees payable for all n	Fees payable for all new licensees				
Fee for test	\$ per licence	\$97.68	Average of the fee payable for the licence exam and registration exam. Licence exam – \$143.15: Plumbing Industry Commission, Licence (theory) test Registration exam – \$52.20: Plumbing Industry Commission, Licensing and registration fees		

Government communications costs

It is assumed that regulators will incur communications costs associated with the new national licensing framework. Consumer Affairs Victoria recently undertook a communications exercise with state-based changes to real estate regulations. This communications exercise cost between \$300,000 and \$350,000, based on 22,000 licences and included:

- direct communications (up to two letters)
- metropolitan and regional meetings with licensees (six to ten meetings)
- website content and social media
- temporary call centre staffing
- a public information campaign
- industry and public campaign management.

In the absence of other information, it is assumed that similar communications costs will be faced by the jurisdictions of New South Wales, Victoria and Queensland.

Due to the small size of the refrigerated air-conditioning industry, it has been assumed that only 50 per cent of these costs will be incurred under model A (full licensing) and model B (partial licensing). The costs incurred under the no licensing (except for the Commonwealth Arctick licence) option have been reduced further than under models A and B to 25 per cent of the original cost to account for the fact that only limited communications would be required under a no licensing (except for the Commonwealth Arctick licence) option.

Table F.34: One-off communications costs

Assumptions	Unit	Value	Source		
One-off communications costs – model A (full licensing) and model B (partial licensing)					
NSW	\$ per jurisdiction	\$162,500	Assumption based on unpublished information provided by Consumer Affairs Victoria, March 2012		
Vic	\$ per jurisdiction	\$162,500	Due to the size of the refrigerated air-conditioning industry, it is		
Qld	\$ per jurisdiction	\$162,500	assumed that only 50 per cent of the assumed communications costs will be incurred for these models		
One-off communication costs – no licensing (except for the Commonwealth Arctick licence)					
NSW	\$ per jurisdiction	\$81,250	Assumption based on unpublished information provided by Consumer Affairs Victoria, March 2012		
Vic	\$ per jurisdiction	\$81,250	The costs incurred under the no licensing (except for the Commonwealth Arctick licence) option have been reduced further than under models A and B to 25 per cent of the original cost to		
Qld	\$ per jurisdiction	\$81,250	account for the fact that only limited communications would be required under a no licensing (except for the Commonwealth Arctick licence) option.		

Government operating costs associated with the licensing authority

The National Occupational Licensing Authority Budget 2012–15, as agreed by the Ministerial Council for Federal Financial Relations on 7 April 2011, reflects the costs to government of establishing the licensing authority. These costs were allocated to each jurisdiction (based on agreed percentages).

The costs to government of establishing the licensing authority will be apportioned to each occupation under national licensing (including the first and second tranche of occupations and the potential harmonisation of conduct requirements). It is assumed that the first tranche of occupations (plumbing and gasfitting, property, electrical and refrigeration and air-conditioning mechanics) will be apportioned 50 per cent of these costs (30 per cent will be apportioned to building occupations, and 20 per cent will be apportioned to the potential harmonisation of conduct requirements).

In the absence of any other information, it is assumed that there will be three years of transition costs (based on the National Occupational Licensing Authority Budget 2012–15) and then ongoing costs associated with the licensing authority. It is assumed that the fourth-year costs represented in the licensing authority budget are representative of the ongoing costs per annum.

Assumptions relating to the expected costs of the licensing authority, as agreed by the Ministerial Council for Federal Financial Relations, include:

- 34 (full time equivalent) staff (2 APS3, 1 APS5, 14 APS6, 11 EL1, 5 EL2, 1 SES2)
- employee benefits including superannuation of 15.4 per cent and long service leave of 2.6 per cent
- an on-cost multiplier of 1.73
- a one-off establishment cost (incurred in the first year of implementation only) of \$3.05 million

- national licensing register costs associated with the implementation of the licensing authority
- meeting costs.

Table F.35: Government operating costs associated with the licensing authority

Assumption	Unit	Value	Source	
Total costs to government ^a (annual overall licensing authority budget)				
Total cost 2011–12	\$ per	\$6,633,724	The cost in 2011–12 is assumed to be a transition cost.	
	annum		Revised draft National Occupational Licensing Authority Budget 2011–12 and 2012–13 as at 3 May 2012.	
			Unpublished, provided by COAG National Licensing Taskforce, 8 May 2012.	
			Based on the revised budget value for 2011–12.	
Total cost 2012–13	\$ per annum	\$10,752,523	This includes transition costs of \$2,733,542 and ongoing costs of \$8,018,981.	
			Based on estimates in the Revised draft National Occupational Licensing Authority Budget 2011–12 and 2012–13 as at 3 May 2012 (unpublished, provided by COAG National Licensing Taskforce, 8 May 2012) and the National Occupational Licensing Authority Budget 2012–15 as agreed by the Ministerial Council for Federal Financial Relations on 7 April 2011 (unpublished, provided by COAG National Licensing Taskforce, 13 March 2012).	
			Based on the estimated budget for 2013–14 in the National Occupational Licensing Authority Budget 2012–15 (\$8,412,485), with the addition of the licensing authority establishment cost estimated in the revised draft National Occupational Licensing Authority Budget 2011–12 and 2012–13 (\$2,340,038).	
Total cost 2013–14	\$ per annum	\$8,031,010	This includes transition costs of \$12,029 and ongoing costs of \$8,018,981.	
			National Occupational Licensing Authority Budget 2012–15 as agreed by the Ministerial Council for Federal Financial Relations on 7 April 2011.	
			Unpublished, provided by COAG National Licensing Taskforce, 13 March 2012.	
			Based on the budget for 2013–14.	
Ongoing costs per annum (based on total costs	\$ per annum	\$8,018,981	National Occupational Licensing Authority Budget 2012–15 as agreed by the Ministerial Council for Federal Financial Relations on 7 April 2011.	
in 2014–15)			Unpublished, provided by COAG National Licensing Taskforce, 13 March 2012.	
			Based on the budget for 2014–15.	
Assumed split of government costs by stages of national licensing				
Stage 1	%	50%	Assumption based on discussions with COAG National Licensing Taskforce	
			Stage 1 includes first tranche of occupations – property, plumbing and gasfitting, electrical and refrigeration and air-conditioning mechanics	

Assumption	Unit	Value	Source	
Stage 2	%	30%	Assumption based on discussions with COAG National Licensing Taskforce	
			Stage 2 includes second tranche of occupations – building occupations	
Stage 3	%	20%	Assumption based on discussions with COAG National Licensing Taskforce	
			Stage 3 includes potential changes to conduct requirements	
Assumed split by occupation (for licensing authority costs to government)				
Property	%	28%	Assumption based on advice from COAG National Licensing	
Electrical	%	35%	Taskforce	
Plumbing and gasfitting	%	35%		
Refrigeration and air- conditioning	%	2%		

^a Note that the model calculations strip out the indexation assumptions beyond 2012 as results are presented in 2012 dollars (real).

Table F.36: Proportion of costs attributable to each jurisdiction

Assumption	Unit	Value	Source		
Proportion of National Occupational Licensing Authority operating costs and the IT systems implementation costs attributable to each jurisdiction					
NSW	%	59.04%	Unpublished data provided by COAG National Licensing		
Vic	%	29.41%	Taskforce, 'National Occupational Licensing Authority Budget 2011–12 to 2014–15'.		
Qld	%	11.55%			

National licensing register costs

It is estimated that each jurisdiction will incur implementation costs associated with the establishment of the national licensing register.

The estimated costs associated with the modification, upgrade or purchase of jurisdictional administration systems incurred by each jurisdiction in order for it to provide the required data for the national licensing register as well as to accept the national licence number was initially estimated at \$5 million to \$10 million.

Based on advice received from the COAG National Licensing Taskforce these estimates were reduced to ensure that they only captured the jurisdiction-based implementation costs associated with establishing the national licensing register.

To ensure that the costs were not overestimated, they were reduced by 50 per cent. That is between \$2.5 million to \$5 million, with the lower band assumed for small jurisdictions. These costs have been apportioned to each occupation under national licensing. For example, the refrigeration and air-conditioning occupation is apportioned 2 per cent of the costs faced in Victoria (2 per cent of \$5 million = \$0.1 million).

New South Wales has suggested that its estimated costs will be \$2 million due to the new system being based on the NSW Government Licensing System.

Table F.37: Implementation cost of the National Licensing Register

Assumption	Unit	Value	Source	
Implementation cost of the National Licensing Register				
NSW	\$ per jurisdiction	\$2 million	Assumption based on unpublished data provided by COAG National Licensing Taskforce, 'COAG NLS Taskforce analysis	
Vic	\$ per jurisdiction	\$5 million	for the estimated costs to implement the National Licensing Register – July 2011'	
Qld	\$ per jurisdiction	\$5 million	NSW estimate provided by NSW regulator February 2012	
Assumed split of Go	vernment costs by stage	es of National Licer	nsing Register	
Stage 1	%	50%	Assumption based on discussions with COAG National Licensing Taskforce	
			Stage 1 includes first tranche of occupations – property, plumbing and gasfitting, electrical, and refrigeration and air-conditioning mechanics	
Stage 2	%	30%	Assumption based on discussions with COAG National Licensing Taskforce	
			Stage 2 includes second tranche of occupations – building occupations	
Stage 3	%	20%	Assumption based on discussions with COAG National Licensing Taskforce	
			Stage 3 includes potential changes to conduct requirements	
Assumed split by occupation				
Property	%	28%	Assumption based on advice from COAG National Licensing	
Electrical	%	35%	Taskforce	
Plumbing and gasfitting	%	35%		
Refrigeration and air-conditioning	%	2%		

Attachment G - References

Reports and presentations

Allen Consulting Group 2008, *Evaluation of COAG initiatives for full and effective mutual recognition*, Department of Education, Employment and Workplace Relations, Canberra

Australian Bureau of Statistics 2009, ANZSCO – Australian and New Zealand Standard Classification of Occupations, cat.no.1221.0, Canberra

Australian Bureau of Statistics 2011, Australian demographic statistics', cat. no. 3101.0, June quarter, Canberra

Australian Bureau of Statistics 2011, Australian national accounts: national Income, expenditure and product (gross domestic product, chain volume measures), cat. no. 5206.0, December 2011, Canberra

Australian Bureau of Statistics, Australian national accounts: national income, expenditure and product (gross domestic product, chain volume measures), March 2012, Canberra

Australian Bureau of Statistics 2011, Australian System of National Accounts 2010–11, cat. no. 5204.0, Canberra

Australian Bureau of Statistics March 2012, Consumer Price Index, Australia, catalogue 6401.0, Canberra

Australian Bureau of Statistics May 2010, Employee earnings and hours, catalogue 6306.0, Canberra

Australian Bureau of Statistics, Labour costs, Australia, 2002-03, catalogue 6348.0.55.001, Canberra

Australian Bureau of Statistics, Labour force, Australia (Labour force status by sex), March 2012, catalogue 6202, Canberra

Australian Bureau of Statistics, Labour mobility, February 2010, catalogue 6209.0, Canberra

Australian Bureau of Statistics, Population Clock, 30 April 2013

Australian Government 2010, Best practice regulation handbook, Office of Best Practice and Regulation

Australian Government 2010, Skills shortages Australia, Department of Education, Employment and Workplace Relations, Canberra

Australian Qualification Framework Implementation Handbook, 2007, Australian Qualifications Framework (AQF) Advisory Board, Melbourne

Banks, G 2006, 'Regulation for Australia's Federation in the 21st Century', presentation to the Melbourne Institute/The Australian Economic and Social Outlook Conference, Melbourne, 2–3 November

Council of Australian Governments 2007, Best practice regulation – a guide for ministerial councils and national standard setting bodies

Council of Australian Governments National Licensing Taskforce 2009, *Decision Regulation Impact Statement for the national licensing system for specified occupations*, Canberra

Department of Education, Employment and Workplace Relations, Construction Trades, Labour Market Research and Analysis Branch, September 2011

Department of Treasury and Finance (Victoria) 2011, Victorian guide to regulation, edition 2.1, Melbourne

ECOFRIG Publication May 1997, Refrigeration appliances using hydrocarbon refrigerants

Heaney, C, Swinard, R, Pang, A & West, S, April 2007, *Natural refrigerants: case studies*, Australian Institute of Refrigeration, Air-conditioning and Heating

Holmesglen TAFE

Hychill's website 'Refrigeration appliances using hydrocarbon refrigerants (ECOFRIG Publication) 1997'IBISWorld, *Air-conditioning and heating services in Australia*, Industry Report E4233, November 2012

Institute of Business Excellence, Business management course

Master Builders Association, Business management course

New South Wales Home Building Regulation 2004

Home Building Regulation 2004

New Zealand Department of Labour Health and Safety Publications Safe Use of Hydrocarbon Refrigerants

New Zealand Department of Labour Health and Safety Publications
Coolstore Hydrocarbon Refrigerant Injures Technician

Northern Melbourne Institute of TAFE, Fees and charges - VET

PricewaterhouseCoopers 2009, Estimating financial impacts of the National Occupational Licensing System: final report

PricewaterhouseCoopers study 'Private Security Regulations 2005: Regulation Impact Statement', April 2005

Productivity Commission 2003, Evaluation of the mutual recognition schemes: research report

Productivity Commission 2009, Research Report: Review of mutual recognition schemes

Productivity Commission 2010, Impacts and benefits of COAG Reforms: reporting framework - research report, Canberra

Productivity Commission, Performance benchmarking of Australian business regulation: cost of business registrations, cost of registering a domestic builder

Queensland Government Mines and Safety General Safety

RMIT University, *TAFE fees for government subsidised places*, **Fees for Australian Residents Studying TAFE**Satellite College, *College courses*, **College Courses**

Skills Australia 2011, Employment growth projection in mining operations (less oil and gas), 2010–2016, Canberra

Skills Australia 2011, Skills Australia submission to the House of Representatives Standing Committee on Regional Australia: Inquiry into the experience of fly-in, fly-out (FIFO) and drive-in, drive-out (DIDO) workers in regional Australia, Canberra

SafeWork South Australia

Use of Flammable Refrigerants Including Hydrocarbon Mixes

Storey, E, Dangman, K, Schenck, P, DeBernardo, R Yang, C, & Bracker, A 2004, *Guidance for clinicians on the recognition and management of health effects related to mold exposure and moisture indoors*, University of Connecticut Health Center September 2004

United States Environmental Protection Agency

Detailed Questions About HC-12a ®, OZ-12 ®, DURACOOL 12a ®, EC-12a, and other Flammable Hydrocarbon Refrigerants

Victoria University

Western Australia Department of Commerce 2009, Code of practice: Legionnaires disease

WorkSafe Victoria

Information for Manufacturers and Suppliers of Substances

United States Environmental Protection Agency

The Key to Mold Control is Moisture Control

Legislation

Home Building Act 1989 (NSW)

Building Act 1993 (Vic)

Domestic Building Contracts Act 2000 (Qld)

Queensland Building Services Authority Act 1991 (Qld)

Occupational Licensing Act 2005 (Tas)