national electrical and communications association

Apprenticeship Programs in Electrotechnology

Apprenticeship Policy July 2019

Policy Position, Intent and Purpose

The National Electrical and Communications Association's Policy Statements are based on the findings of its *'Alternative Pathways Project'*. This government program established a series of industry-led pilots to test and open up alternative training approaches on a broader scale to provide greater skills development, choice and industry acceptance.

As the peak industry voice for the electrical and communications sector, NECA engages with key stakeholders, across a range of policy positions and in a number of forums. NECA holds the view that the ongoing advocacy of the industry, via Parliamentary discussions, parliamentary and departmental policy submissions and policy forums, is a critical element in effecting positive change for our industry.

The intent of this paper is to highlight to policy makers and key decision influencers the barriers, threats and opportunities that currently exist for NECA members, and within the wider electrical contracting and communications industry as a whole. It recommends that NECA adopts a policy position for apprenticeship arrangements in key reform areas, based on the findings of NECA's Alternative Partnerships Program (APP). The four new policy themes have been formulated as a result of an internal process of engagement with members, state chapters and NECA Councillors as part of the *'Project'* and includes positions on;

1. A National Industry led Approach for Pre-Apprenticeship Programs
2. Increasing the effectiveness and relevance of Apprenticeship Training
3. Nationally consistent and effective Capstone Assessment arrangements
4. The Adult Apprenticeship Pathway.

The purpose of each Policy Statement is two-fold:

- To provide NECA members and the wider industry with a clear and comprehensive policy position that identifies the key challenges and potential regulatory or administrative barriers in need of urgent or long term reform within the sector to ensure innovative industry training practice; and
- To highlight to the government the barriers and threats that presently exist within the industry and to provide solutions for industry reform.

These policy themes will be put forward following the ratification and adoption by NECA's National Executive. This is a vital step in validating the findings of project activity and the take-up of arrangements which could be adopted broadly by employers and industry. The Policy positions will underpin the *'National Rollout'* of industry validated program models to deliver greater choice in models for apprenticeship training delivery, while maintaining industry and employer confidence in 'graduates'. This will include communication through a number of NECA avenues to highlight:

- Barriers and issues that may limit the sustainability of the roll out of the program models, including actions that need to be undertaken to overcome them;
- Key organisations that NECA will link with to ensure the sustainability of program models, including the role foreseen for them to ensure this;
- The recommendations for future changes in the Electrotechnology Sector; and
- Promotion activities to industry to support increased adoption.

Contents

1. A National Industry led Approach for Pre-Apprenticeship Programs

Background

The APP's sub-program Program 1 – *Pre-Apprenticeship and focused off-the-job skills training*, examined how the provision of pre-apprenticeship training can be better utilised to ensure apprentices are more work ready, understand the basics of the industry, and have hand skill familiarity.

NECA recognises that pre-apprenticeships have significant potential to improve commencement and completion rates for electrical trade apprenticeships and is therefore supporting a systemic approach to pre-apprenticeships.

Key Issues and Recommendations

The challenge for the industry lies not in proving the value of pre-apprenticeships, but in ensuring national consensus around a pre-apprenticeship definition, and a national benchmark for consistency of outcomes. NECA proposes a national industry-led pre-apprenticeship model which includes – targeted, industry-relevant skills development, high-quality training, genuine workplace experience and transition to employment.

This Policy Statement has been prepared to help the industry clearly identify, articulate and promote sector-specific pre-apprenticeship pathways which address:

- Arrangements for the delivery of pre-apprenticeships;
- Policy position in relation to workplace learning;
- Credits towards completion of the trade;
- Regulatory requirements, pre-requisites;
- Funding arrangements.

Role of Pre-Apprenticeship Arrangements

The position of the Industry is that Pre-Apprenticeship Programs should qualify individuals to undertake mainly routine work in an electrotechnology context and provide a pathway to further learning. They should generally be used as a preparation for the apprenticeship including providing potential apprentices with a better understanding of what an apprenticeship in the industry entails; providing a filtering mechanism to divert unsuitable candidates; and providing skill development opportunities in a workplace environment.

NECA is of the view that the development of a national pre-apprenticeship model needs to be:

- underpinned by genuine work-based learning opportunities;
- driven by high quality training which makes graduates work and apprenticeship ready;
- developed and delivered through direct engagement with employers and industry;
- responsive to local skill demands;
- linked to job opportunities and employment outcomes;
- adequately funded, with relevant length and sequencing whether part or full time.

Recommendation 1

NECA National Executive fully supports a national systemic approach to pre-apprenticeships in delivering work readiness development opportunities to individuals, including:

- **Being used to provide learners with industry specific training, combined with adequate time in a workplace context to gain practical skills, knowledge and behaviours to enable transition into an apprenticeship;**
- **Allowing pre-apprentices to be exposed to real workplace conditions;**
- **Training programs for pre-apprentices should be targeted at students seeking apprenticeships and where entry into an apprenticeship may be gained during pre-apprenticeship training or subsequent to graduation.**

National Consistency

There is clear evidence of interest in the use of pre-apprenticeships as a strategy to deliver engagement and retention benefits. NECA has reviewed leading practice Pre-Apprenticeship Programs to help clearly identify, articulate and promote sector-specific pre-apprenticeship pathways. This has led to the development of a national industry-led Pre-Apprenticeship Policy and Program Framework, including an agreed definition, key principles, standards/benchmarks and funding guidelines.

Recommendation 2

NECA National Executive endorses an agreed national industry-led Pre-Apprenticeship Policy and Program Framework and its use in:

- **Promoting sector-specific pre-apprenticeship pathways;**
- **Supporting quality delivery and consistency across jurisdictions;**
- **Establishing formal engagement with state and territory governments to facilitate national adoption of the framework.**

Arrangements for the delivery of Pre-Apprenticeship Programs

Generally electrical pre-apprenticeships are based on the national qualification – *UEE22011 Certificate II in Electrotechnology*. In some jurisdictions state based qualifications at Certificate II are also used. These qualifications enable participants to develop broad based competencies in a range of electrotechnology fields, such as lighting, general power, fire protection and security, robotics, instrumentation, optical data and voice systems, electrical motors and control systems. They tend to focus on workshop practices and hand skills, electrical wiring and equipment, electrical drawing, electrical regulations, test instruments, communications skills, computer software applications, applied electricity and workplace safety. Courses are generally delivered face to face, online and through work simulated areas and facilities.

Recommendation 3

NECA National Executive:

- **Endorses the design of Pre-Apprenticeship Programs that are based on the Certificate II in Electrotechnology;**
- **Supports a national approach to models of integrated off and on-the-job training where participants complete nationally recognised designated units before being offered entry into an apprenticeship.**

- **Approve NECA's position where the program structure of pre-apprenticeships should incorporate;**
  - **Prerequisites and areas of underpinning knowledge that can take the 'unskilled entrant' to a skill level where they are more useful and productive upon employment;**
  - **A standardised list of competencies that could be delivered around themes such as *Safe Work Practices, Workplace Fundamentals, Underpinning Knowledge, Practical Activities and Hand Skills*;**
  - **Processes for validating these competencies in the workplace;**
  - **Processes for recognising these competencies as part of the apprenticeship.**

The Role of Work Placement in Pre-Apprenticeships

Work placements in Pre-Apprenticeship Programs provide participants with an opportunity to apply the theory in the course to a workplace setting and develop practical and hands on skills. Pre-apprenticeships that include a structured workplace learning component, or work experience, are seen by the industry in a more positive light than those that do not.

Employers have demonstrated preference for pre-apprenticeships over institutional delivery only as the candidate has experienced '*life on the tool*s'. Whilst this is the case, funding is often not available to manage or administer the work experience component of the pre-apprenticeship.

Whilst in many cases the regulator also prefers the workplace element being completed. State-based regulation at times prevents work placement taking place in favour of practical work being completed within simulated environments.

Recommendation 4

Training Providers should be supported to take on a role in coordinating and monitoring a work practice component and ensuring that the pre-apprenticeship's work practice incorporates the following principles:

- **Work practice exposes the pre-apprentice to real workplace conditions. Real workplace conditions should include, but not be limited to the physical environment, degree of safety or danger, customers and clients and commercial outputs;**
- **Work practice should contribute to the competency requirements and employability skills relevant to the pre-apprenticeship qualification;**
- **Work practice should contribute to the occupational outcome of the relevant apprenticeship qualification and assist the pre-apprentice's transition to a relevant apprenticeship;**
- **Work tasks and projects should complement and contextualise the units of competency with a focus on developing the dimensions of competency;**
- **Simulated work tasks are used solely for reinforcement; and**
- **Support services should support the student in achieving competency and effectively participating in a workplace to facilitate pre-apprentice completion.**

Credits towards completion of the Apprenticeship

Although the completion of a pre-apprenticeship indicates that the candidate is work ready both by having committed to and completing the pre-apprenticeship, and by giving the candidate a foundation to build upon in

the apprenticeship, there is no drive from either industry or the regulator to reduce or accelerate the completion of the apprenticeship.

Credits towards the apprenticeship varies across jurisdictions. In most cases, completion of the pre-apprenticeship accelerates the completion of off-the-job training as part of the apprenticeship but the apprentice must still complete the minimum on-the-job requirements (44-48 months). In practice, the pre-apprenticeship opens up the possibility for an apprentice to go on to advanced or specialist studies sooner.

Recommendation 5

NECA supports the position that graduates who successfully complete UEE22011 Certificate II in Electrotechnology as a pre-apprenticeship course:

- **Will be given credit, should they commence an electrical apprenticeship, for the off-the-job training part of the apprenticeship.**

Regulatory Frameworks

There are variations in state regulators' requirements for pre-apprenticeships. There are variations in Registered Trade Organisation (RTO) requirements for the delivery of Pre-Apprenticeship Programs. In Western Australia, RTOs must be approved to deliver electrical apprenticeships by the regulator including eligibility to deliver the pre-apprenticeship.

Funding Models

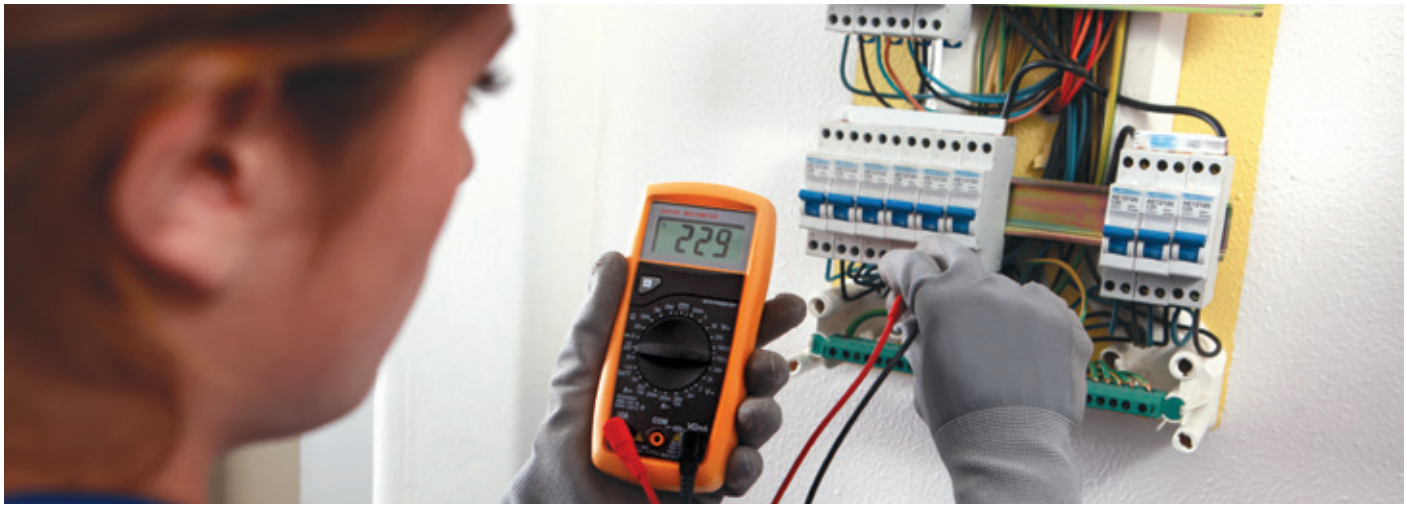
Funding of pre-apprenticeships reflects the lack of clear policy objectives for the various state programs. Most view pre-apprenticeships as an important instrument for getting people into trades but often for very different reasons. Some see them as a route to finding the best candidates for the apprentice programs while others feel this approach identifies good candidates who would otherwise have not gone into a trade. There should be a simpler funding regime that will allow this diversity to take place.

Funding of pre-apprenticeship courses is largely provided by funding distributed through State Training Authorities. In most cases funding is provided for pre-apprenticeship training that is based on the delivery of an approved Certificate II pre-apprenticeship qualification (in some jurisdictions this includes state accredited programs). In general, training in vocational areas that align with important economic and industry skill needs receive a higher government subsidy.

Recommendation 6

NECA believes that:

- **Funding should be made available for delivery of industry-led Pre-Apprenticeship Programs that support completion of national qualifications and facilitate participants' transition to an apprenticeship in the electrical trade;**
- **Funding for a pre-apprenticeship training program should be provided for the:**
  - **delivery of an approved Certificate II Pre-Apprenticeship qualification; and**
  - **the coordination of a monitored and supervised work practice component that underpins the determination of the pre-apprentice's competency to industry standard;**
- **The Industry should receive government funding to support quality delivery and consistency across jurisdictions, guided by the agreed national framework for pre-apprenticeships.**



Industry Opportunities

NECA supports a national industry-led Pre-Apprenticeship Program. NECA's view is that Industry must take ownership of pre-apprenticeships if their benefits are to be fully realised by individuals and employers. To support this approach NECA has prepared a national framework and underpinning guidelines that could apply to all Electrotechnology Pre-Apprenticeship Programs. These will contribute to a national understanding of what makes a quality pre-apprenticeship, which in turn will impact on the quality, consistency and relevance of programs being delivered.

NECA's view is that the Industry could use this agreed framework to consult/partner with State Government agencies to drive industry-led Pre-Apprenticeship Programs that support the completion of national qualifications and facilitate participants' transition to the apprenticeship. This could include how the Industry could be supported to coordinate, manage and implement pre-apprenticeship projects, in partnership with approved training providers.

The proposed Pre-Apprenticeship *National Guidelines* provides a framework for the operation and delivery of local programs. The *Guidelines* aim to drive and embed more attractive pre-apprenticeship models that better meet the needs of the industry. They provide the platform for promoting clearly defined and effective pre-apprenticeship pathways that are recognised by employers and support entry into and completion of an apprenticeship.

The development of a national industry-led Pre-Apprenticeship Policy and Program Framework will promote pre-apprenticeships in the industry that:

- Will be underpinned by genuine work-based learning opportunities;
- Are driven by high quality training which makes graduates work and apprenticeship ready;
- Are developed and delivered through direct engagement with employers and industry responsive to local labour market needs and skill;
- Are based on leading practice Pre-Apprenticeship Programs that deliver engagement and retention benefits;
- Are underpinned by a formal process that helps the industry clearly identify, articulate and promote sector-specific pre-apprenticeship pathways, and
- Are based on formal engagement between the Industry and State/Territory jurisdictions to facilitate national adoption of the framework and agreed funding and delivery arrangements.

Please refer to ***"5. Attachment 1 – National Guidelines" on page 22***.

2. Increasing the Effectiveness and Relevance of Apprenticeship Training

Background

The intent of this paper is to highlight to policy makers and key decision influencers the barriers and threats that currently exist for NECA members, and within the wider electrical contracting and communications industry as a whole, in providing apprenticeships that are relevant to the various workplaces across the industry. It defines a position that addresses the:

- Issue of the type of work required for a business and where adjustment is needed for specialisation/ contracting requirements and the balance between broad industry skills versus specialist skills
- Challenges for an apprentice in obtaining a sufficient breadth of experience as part of on-the-job training. These are challenges not only due to the scope of the required competencies in the apprenticeship but also the high prevalence of small business and sole traders.

Key Issues and Recommendations

The NECA APP's sub-program *Program 2 & 3* has examined approaches to electrical training arrangements that can be utilised across all employers irrespective of the sector, size or type of work undertaken. The Program has focused on making apprenticeship training more relevant to the sector (i.e. industrial, commercial or domestic) where the employer is based, through an examination of:

- Training Package flexibility and processes for more customised and contextualised delivery to ensure the work experience of the apprentice is more aligned to the actual off the job training delivered; and
- Approaches to establish industry validation of competencies not undertaken in the workplace and the inability of many employers to provide workplace experience in some skills areas due to the types of work undertaken.

Understanding the makeup of the current Electrotechnology Qualification and the Industry Training Package

Employers are generally not familiar with the detail around the Industry Training Package and uncertain about the makeup of the current Electrotechnology Certificate III qualification. Many have reported high levels of structured training (where training activities have a specified content or pre-determined plan). This is reflective of the specialist nature of technical skills and the high safety standards required for working in the electrical industry. In addition many electrical contractors have been brought up in a traditional trade-based environment where there has been an accepted industry structure over years.

Many of these traditional employers are now facing a number of workforce challenges with many employers unclear on how to influence their training provider. The general view is that the Electrotechnology Training Package is delivered in a compulsory manner and sequence, and that skills training for the trade may have become too prescriptive. Typically, these employers rely heavily on the nominated Registered Training Organisation (RTO) and/or Government Training Organisation (GTO) to guide them through the process of engaging the apprentice and developing appropriate training programs based on the selection of a set of core and elective competencies.

This process is in part failing employers because little time has been spent on seeking to match an individual business to the set of competencies best suited to its needs and there is not enough emphasis on the engagement of an individual employer by the Training Provider. This has been confirmed by employer feedback where the following issues have been constantly raised:

- More flexible training and creative pathways are needed to meet employer needs and the nature of contracting work;
- The training plan is often in a lock step pattern, which does not relate to the actual work performed by apprentices, particularly in years one and two; and
- Greater links are required between structured off-the-job training to the practical work-based experience gained by apprentices in the workplace.

The vast majority of employers, NECA and other employment and training providers consider the Certificate III in Electrotechnology to be the main entry point into the industry and of critical importance to the ongoing basic skill requirements and future of the industry. They also see the need for arrangements to be put in place where employers are more effectively engaged in the development of a training plan and are supported in identifying apprentice training. Properly planned training programs are essential if businesses are to gain the most advantage from them and electing a set of competencies that best suit their business needs and the needs of their apprentices is critical. This is, however, somewhat limited by the employer's capacity to pre-empt the nature of the future work they will be doing.

It has been the experience of NECA and, anecdotally, other stakeholders, that there is a serious lack of understanding of the content and purpose of the Industry Training Package among employers. The net result of this lack of awareness means the inherent flexibility of the Industry Training Package is largely wasted and the business' skills development program is compromised. NECA has long believed that employers should have an understanding of the Training Package requirements so that when employing apprentices they are able to request (when discussing the subject with Training Providers) training programs that will be of maximum benefit to both the business and the apprentice.

Recommendation 1

Given these issues, NECA's position is that Government resources the development of support materials so that employers understand their obligations to provide a breadth of experience within the scope of the Certificate III in Electrotechnology Electrician, including:

- **Introducing employer education material, with the aid of benefit statements and case studies, to enhance employer awareness and appreciation of the importance of the Training Package and their obligations regarding the provision of, or access to, the full range of work relevant to UEE30811 Certificate III in Electrotechnology Electrician;**
- **Establishing a methodology that will enable employers to identify training programs that are tailored to the needs of their businesses and their apprentices. This will include the development of a 'tool' tailored specifically for electrical business to help them build and manage apprentice capability through the selection of competencies to suit the needs of the business.**

  The aim of such a *'tool'* will be to provide an easy to use, intuitive interface that makes the process of modelling any work environment easy and allows a business to:

  - **Analyse work requirements;**
  - **Link work activities to competency standards units;**
  - **Develop a profile of the skills needed and the competencies needed by their apprentices;**
  - **Analyse training needs and map the work tasks against skill-sets and competencies to determine *"fits"* within the apprenticeship pathway and the workplace.**

Ensuring Employer Capacity to deliver Employment-Based Training

The apprenticeship is strongly supported as a pathway to obtain a qualification by completing employment-based training under a registered training contract. It is essential the employment arrangements, including facilities, equipment and the range of work undertaken, support the apprenticeship outcome. The employer has an obligation to provide, or arrange to provide, the facilities and range of work to develop on-the-job knowledge and competence related to the occupational outcome aligned to the apprenticeship.

Employers need to be able to provide apprentices with work tasks aligned to the qualification. Training Providers should play an integral role in assessing an employer's capacity to provide appropriate facilities and range of work when it prepares the training plan required for the apprenticeship. This process should include converting units of competency which make up the qualification into work-based tasks which the apprentice can undertake with the employer. At a minimum these work tasks must allow an apprentice to select, install, set up, test, fault find, repair and maintain electrical systems and equipment in industrial, commercial and domestic settings. The negotiation and establishment of the training plan should require the Training Provider to identify any units of competency where the workplace cannot provide suitably aligned tasks i.e. whether the workplace has the necessary work, resources and facilities needed for the apprentice to undertake the workplace training. Where the employer cannot provide the range of work required, the Training Provider and employer need to consider the options available which may allow the training contract to continue.

NECA proposes a consistent approach for Training Providers to check an employer's capacity to support structured training in the proposed qualification prior to the completion of the training plan. Typically, this should include an assessment of:

- *The type of work undertaken by the employer* – this is important in identifying whether an employer can provide the workplace tasks aligned to the units of competency in the training plan;
- *The units of competency* for which the employer could not provide aligned workplace tasks – this is particularly important with the increasing number of workplaces which specialise in certain tasks and/or outsource workplace tasks. The Training Provider must identify these units and provide details in the training plan to reflect this and the details of how training and assessment will occur;
- *Facilities and equipment* – where there is a gap in the facilities and equipment required to complete the units competency required in the training plan, there need to be options in place to access the required facilities and equipment or consider alternative approaches to the training and assessment.

Recommendation 2

NECA endorses the creation of a single, national industry-led approach to verify whether an employer has the capacity to support structured training prior to the completion of the training plan. This includes the development of guidelines to support training organisations in their efforts to carry out '*employer assessments*' to determine an employer's capacity to provide adequate training arrangements and clearly outline the specific workplace requirements for employers that seek to engage electrician apprentices. They should be used by the Training Provider for the negotiation and establishment of the training plan including processes for:

- **Ensuring the apprentice and employer understand the relationship between work tasks to be performed and the units of competency to be achieved;**
- **Identifying any units of competency which are required for the qualification that cannot be achieved in the workplace, and where the workplace cannot provide suitably aligned tasks;**
- **Determining how training will occur and how these units will be assessed by the Training Provider.**

NECA to make representations to:

- **Address any other concerns identified with the Training Package matters that could be included within the Employer Capacity Assessment processes; and**
- **Identify jurisdictional regulations that may have an impact on the process to identify any gaps in the range of work and facilities available as part of the Employer Capacity Assessment process.**

Addressing the issue of Increasing Specialisation

A number of employers have brought up the issue of increasing specialisation of work and how that is placing pressure on a broad based whole of industry skills learning pathway. In these cases businesses are generally expanding beyond a traditional fixed wiring service with the need of a greater understanding of data cabling, structured cabling, control wiring and controlling circuits. Specific pathways that have been most mentioned include:

- Communications and Data Cabling
- Automation – Programming; Building & Home; Entertainment
- PLCs – Control Wiring ; Plug and Play; industrial electronics and Programmable Logic Controllers (PLCs), including programmable relay systems
- Security – Security systems; Access Control; Video intercoms
- Air conditioning split systems
- Renewable energy installation and assessments
- PV Installation (Grid Connect)
- Energy management – Solar output; Battery storage.

Employers and Training Providers need to determine an appropriate manner to include coverage of these relevant work practices. Within this context there are an increasing number of workplaces which see the need for customised and contextualised training delivery to better reflect the needs of their business and the work of their apprentice. For many employers, considerations in customising apprenticeships predominately stem from:

- The type of work required for a business and where adjustment is needed for specialisation/contracting requirements i.e. in this case the training needs to be adjusted to better align with specialist tasks more suited to the workplace and the *'type of work'* required for the apprentice;
- The requirements of specific units of competency – i.e. tasks that cannot be provided in the workplace as a result of a business' function or where there are gaps in their facilities and equipment;
- The all-encompassing nature of the emergence of modern technologies and related services, which has a clear implication for training right across the sector. The view raised by many employers was on the need for different approaches to training and skills acquisition that are tailored to the needs of modern businesses. The technology is fast moving and as a consequence course materials and resources are required to be continually updated while equipment used for training purposes has a limited life and must be regularly replaced so as to remain contemporary with the technology in the marketplace.

Within the Vocational Education and Training (VET) System '*customisation*' has been defined as either:

- Packaging appropriate units (electives) into a qualification to meet a particular outcome; and/or
- Tailoring the training and assessment strategies to address the specific needs of the learner/employer while meeting the requirements of the units and qualification.

It is about flexibility, and this is inherent in the way training packages are constructed and delivered.

Within the Electrotechnology Sector customisation will be mainly required to ensure that training is more suited to the workplace where the apprentice is employed i.e. to meet specialisation and the *'type of work'* required for the apprentice. Therefore, within the *'Customisation'* process there should be an examination of arrangements/options to enable the provision of the full range of work required i.e. aligning work experience of the participant to the off-the-job training. This should include how the training can meet enterprise needs and can be adapted or customised by picking additional/adjusting units of competencies to specifically target exactly what employers/apprentices need i.e. expanding elective units presently offered as part of the Certificate III or revising existing units in the training plan.

Feedback indicates that there is very limited scope to actually *'customise'* the electrotechnology qualification by using the elective options available. The level of customisation available only relates to a very few units of competency where the apprentice will 'specialise'. In essence the packaging rules and the number of core units for the Certificate III qualification means there is no room for many electives (unless apprentices were prepared to do more units than the qualification requires).

Given every business is different, each will need to develop a competency framework appropriate for their needs. For small to medium enterprises, they argued that this needs to be done on a case-by-case basis, rather than as part of a broader strategy.

Recommendation 3

NECA's position is that Government resources the development and introduction of employer education materials that will, with the aid of benefit statements and case studies, enhance employer awareness and appreciation of the process/benefits of customising a training program to make it more meaningful and relevant and to pick/adjust competencies that specifically target exactly what they need. This should include processes for:

- ***Customising the delivery of training*** **– by adjusting existing units in the training plan i.e. modifying units of competency to reflect the local outcome required by an apprentice and/or business. This may involve the provision of additional information to suit particular apprentice profiles, specific business equipment requirements or other local needs, and in providing training and assessment that is specific to a business and the apprentice. Any modifications to training and assessment strategies must meet the requirements of the units to maintain the integrity of industry skill and portability, including all legislative licensing and any other regulatory requirements**
- ***Customising the qualification*** **– by packaging units of competency into a qualification, using the elective options available, to suit a particular outcome. This process will involve examining the training plan and identifying competencies (electives) to specifically target exactly what employers/apprentices need i.e. selecting units of competency within the qualification packaging rules to suit local business needs.**

Challenges for Apprentices to obtain a Sufficient Breadth of Experience

The challenge to ensure apprentices obtain a sufficient breadth of experience as part of on-the-job training is widely acknowledged. This is an issue that has been identified by providers, training authorities, regulators and employers relating to the inability of many employers to provide workplace experience in some skill areas. This is seen as particularly important in light of the concern of a number of employers, particularly in the domestic and industrial sectors, that have indicated that over a quarter of the required competencies cannot be practiced in the workplace in some enterprises. This is leading to a number of stakeholders questioning whether the individual has received sufficient experience in certain competencies prior to issue of the qualification.

The issue is placing an increased reliance on Training Providers to provide a simulated workplace experience to ensure that an apprentice actually undertakes the skills in workplace type settings. NECA's research has identified a range of simulated environments currently in use to support the on-the-job component of an apprentice's training. There are currently a number of facilities and resources that are reflective of an industry environment that are used for simulated training and assessment, including:

- Simulated industrial electrical installation work facilities;
- Simulated electrical (domestic) installation testing and fault finding identification units;
- Resources to enable access to contemporary electrical installation test equipment;
- Use of facilities that provide relevant practical training and assessment projects for domestic and non-domestic installations;
- RTO resources for simulation, ranging from working booths to a complex simulation of a house, and works to validate these with workplaces;
- Practical training environments (as relevant to real work activities) where apprentices can undertake *'hands-on*' training to learn and practice – including working on 'live' electrical activities.

NECA has recognised the need to clarify the purpose for simulated learning and assessment, particularly where an apprentice is unable to utilise their workplace for assessment requirements where necessary. While a workplace environment is highly desirable for both practice and assessment, it is recognised that where an appropriate workplace environment is not available, simulation may be required as a learning and/or assessment environment for some units or aspects of competence.

Employers generally support simulated training as an option to support any shortfalls in their capacity to provide the scope of skills and experience required by an apprentice but it has been constantly stressed that – *Simulation Activities in the Electrotechnology Sector should be used as a reinforcement of work undertaken on-the-job, not a replacement*. Simulation activities should focus on skill areas which employers find difficulty in providing workplace experience that allow apprentices to learn and practice methods and techniques for some '*hard to get on-the-job*' competencies. Simulation is not, and should not be considered as, an assessment '*short cut*' as the rules of evidence still apply. The processes to be employed in the simulated environment need to outline the vital learning and assessment activities for apprentices. Thus the objectives and standards of the simulation must be clear, including how these activities relate to the learning outcomes for competency units.

Recommendation 4

NECA's position is that:

1. **Simulation should be used as a reinforcement of work undertaken on-the-job, not as a replacement. It might need to be undertaken for a number of reasons. For example, allowing:**
   - **Assessment to take place even though there is no or limited access to the workplace;**
   - **Apprentices to have access to equipment, materials and work tasks that may not be readily available in the workplace;**
   - **Training and assessment to be conducted in safe environments;**
   - **Apprentices to be assessed on unpredictable, potentially dangerous or infrequently occurring events and situations;**
   - **Apprentices to repeat tasks and learn from mistakes without risk.**
2. **Guidelines for simulated learning and assessment environments in the Electrotechnology Sector are prepared to ensure that assessment simulations are realistic and therefore authentic. Where simulation is used, the Training Provider must ensure the following elements are in place:**

- **Emulation of realistic and authentic workplace situations;**
- **Learning activities develop technical or discipline-specific skills;**
- **Learning activities and assessments simultaneously reflect industry standards and curriculum requirements;**
- **Where the simulated learning environment results in the re-creation of a physical environment, the following elements should also be assessed:**
  - **Equipment, resources and facilities that meet industry standards;**
  - **Standard operating procedures of selected equipment;**
  - **Industry protocols of selected processes.**

Restrictions on Simulations

There are emerging approaches that are being considered by some regulators to introduce tighter controls on simulation processes. In some jurisdictions licensing authorities and industry bodies place conditions on simulated assessment. This includes directions from regulators about arrangements that are/should be in place to restrict the delivery of certain competencies within a simulated work environment.

An example is the recent report from the Queensland Office of the Training Ombudsman – *'The Training of Electrical Apprentices in Queensland – A Report to the Attorney-General, Minister for justice and Minister for Training and Skills' – included* an initial assessment of a list of core competency units from the *UEE308 – Certificate III Electrotechnology Electrician* qualification to identify those that may not be suitable for delivery in a simulated work environment.

The Report outlined six core units from the apprenticeship that cannot be simulated

The six core units are as follows:

1. **UEENEEG063A Arrange circuits, control and protection for general electrical installations**
2. **UEENEEG033A Solve problems in single and three phase low voltage electrical apparatus and circuits**
3. **UEENEEG109A Develop and connect electrical control circuits**
4. **UEENEEG107A Select wiring systems and cables for low voltage general electrical installations**
5. **UEENEEG103A Install low voltage wiring and accessories**
6. **UEENEEC020B Participate in electrical work and competency development activities**

Recommendation 5

NECA undertakes jurisdictional consultations to identify any directions from regulators to determine:

- **Whether arrangements should be in place to restrict the delivery of certain competencies within a simulated work environment;**
- **Options for implementation should restrictions be considered appropriate, including making representations to amend the Training Package;**
- **Matters to be included within the processes for determining Employer Capacity to deliver on-the job training for electrician apprentices.**

3. Nationally Consistent and Effective Capstone Assessment Arrangements

Background

This paper has been prepared to highlight to policy makers and key decision influencers positions that could be considered in relation to:

- Alternative models of industry engagement and industry validation that could support Capstone testing arrangements following completion of the qualification; and
- A nationally consistent approach for preparing final year apprentices for the Capstone Assessment.

The proposed recommendations are based on the findings of the APP's sub-project Program 8 – *Developing and implementing nationally consistent and effective Capstone Assessment arrangements.*

A table containing a comparison of the jurisdictions on these matters can be viewed on page 28.

Key Issues and Recommendations

The Pathway from an Apprenticeship to an Electrical License

A Capstone course assessment is defined as 'an assessment that assesses student learning for most (if not all) of a program, assuming its content represents a cumulative experience'. The issue for industry is not the Capstone itself, but the disconnection between the completion of the Certificate III qualification and the issue of a license as an 'electrician'. The comparison regarding the process required to obtain an electrical licence identifies that whilst all jurisdictions require the completion of the qualification, the majority of jurisdictions require additional information before a licence is issued.

It should be noted that there are practices in place in some states that are neither 'public nor recorded' regarding *'filtering'* of applicants. These arrangements are seen by licensing officials as a safeguard to ensure that applicants who appear to have *'ticked'* all criteria are actually suitable to be permitted to work as an electrician with its inherent personal and public risk.

Whilst there is no standard process, mutual recognition exists between all states and territories of Australia. This allows *'electrical workers licenses'* (there is no consistent term) from one state or territory to be accepted in another without additional assessment. This does not apply to *'electrical contractor'* business licenses. It is considered that these arrangements work reasonably well.

The lack of an additional threshold between the qualification and the license has been raised by some stakeholders, particularly concerns in the following:

- Challenges for apprentices to obtain a sufficient breadth of experience;
- The value of assessment was not necessarily seen to have been realised in practice – the use of RTOs as both the training and assessment body has led to perceived independence. There is concern from some regulators over the quality of some RTOs and the reliability of their assessment judgements; and
- Issues of emerging technologies and the capacity of the Training Package to keep up with change.

Whilst there is a call in some areas to enhance the rigor of the pathway from apprenticeship to license holder there is currently little appetite amongst State and Territory regulators to adopt a unified delivery approach for the Capstone Assessment.

Within this context stakeholders are supportive of the opportunity for industry to have a greater influence in the implementation of effective Capstone arrangements. This could include possible industry validation regimes or quality assurance roles at a state level to provide advice on the relevance, adequacy and quality of training and assessment methods and outcomes from RTOs and advise whether graduates from training providers meet the standards of performance expected by industry.

Recommendation

NECA supports a role for industry in Capstone arrangements across the following key areas:

- **The administration of the *'Capstone Test'* i.e. through the provision of advisory activities and industry input to enhance the efficiencies and outcomes;**
- **Industry models that improve the link between completion of the qualification and the satisfaction of competence by the regulator;**
- **A role for industry in the examination of how Capstone tests are being undertaken by RTOs; and**
- **A national and standardised approach to preparing apprentices for the Capstone.**

Industry input into Capstone Arrangements

The views of many are that if the 'Capstone' is administered correctly then it would form an adequate assessment of competence and there would be no need to consider alternative (cost intensive) mechanisms to address concerns and avoid reform to administration.

The value of assessment, however, has not necessarily been realised in practice and the assessment of competence at the completion of the qualification and issuing of the license continues to be viewed as an issue.

Although the feasibility and the ability to impose these types of models within different State/Territory context is highly unlikely, there is potential though for industry input into the processes for ensuring that persons training as electricians meet licensing arrangements.

A potential role for industry in providing adequate support for the Capstone tests could include consideration of quality control involving the monitoring of assessment procedures and judgements to ensure there is consistency in the interpretation and application of the Capstone arrangements.

Recommendation

NECA endorses the provision of industry advisory activities to support the administration of the 'Capstone Test' and ensure compliance with Industry Standards. This would include working with State/Territory jurisdictions to identify an industry role in:

- **Ensuring the critical items of the *Essential Performance Capabilities* are adequately covered within the Capstone assessment material;**
- **Providing input into the content and scope of the applied Capstone Assessment;**
- **Confirming Industry Standards to be used in the assessment;**

- **Establishing benchmark requirements for the written and practical components of the assessment for the demonstration of fundamental knowledge and comprehension of electrical concepts and safety principles and practical and theoretical knowledge and skills; and**
- **Advising on the development of Capstone Assessment tools/instruments.**

Possible Models of Industry Validation

A key concern around competence of new license holders is whether or not the applicant has attained sufficient knowledge, comprehension, practical skills and workplace experience to be able to work safely and competently in a variety of industry environments and without supervision. This requirement is needed to ensure the safety of the license holder, fellow workers and the end users of the work carried out by the license holder.

It is widely acknowledged that it can be challenging for an apprentice to obtain a sufficient breadth of experience as part of on-the-job training. There is no mandated method by which evidence for the breadth of workplace experience must be collected nationally, however, workplace evidence for electrical apprentices is typically collected through the 'e-Profiling system', or a similar industry supported profiling tool. These tools provide the assessor with a summary of the work conducted by the apprentice. The data is then validated by a licensed electrician who supervised the apprentice.

There is an opportunity for industry to have greater input into the review of the individual qualification and experience of applicants. This should include examining potential industry mechanisms and validation processes for the endorsement of Capstone procedures and in ensuring that these processes meet the requirements of the particular competency and the workplace context.

A range of validation activities have been suggested to examine how the Capstone tests are being undertaken by RTOs and the quality of those arrangements. This includes activities such as:

- Assessing apprentices in the workplace;
- Reviewing strategies for training and assessment, assessment tools, methods and outcomes and the industry competence of staff;
- Reviewing e-Profiling reports of apprentices and making recommendations to RTOs on whether the apprentice should be allowed to enter a Capstone Test; and
- Undertaking 'technical audits'.

Recommendation

NECA supports the position that independent validation of Capstone Assessments should be encouraged in all jurisdictions. NECA endorses the direct involvement of industry in the validation of assessments. This should be seen as an opportunity to bring independence to the process and to build closer links between industry and training providers.

Industry's role may include advising on approaches to validation of the Capstone Assessment, reviewing the outcomes of validation and recommending on improvements to meet industry requirements.

Potential resourcing and or funding implications of any changes (for ongoing validation activities advisory services and activities, and communication of industry standards) should be met by Governments in the public interest.

A National and Standardised Approach to Preparing Apprentices for the Capstone Test

Discussions with State and Territory regulators have indicated that there is little enthusiasm to adopt another state or territory's approach to *Capstone Arrangements*. What is much more likely to be achievable is a relatively nationally consistent training course for final year apprentices to prepare them for the *Capstone* that embeds revision, preparation and the assessment all in one. This may allow for the imposition of a singular *'Licensing Preparation'* course that reviews electrical principles and applications relating to the critical *'Essential Performance Capabilities'*. The course should target the reinforcement of the critical knowledge and skills learnt during an apprenticeship and provide the individual with the opportunity to assess their own retention of theory knowledge and apply this in practical situations.

Such a course would invariably need to contain state specific components to enable the candidate to understand and be prepared for bridging the gap between completing a Certificate III (including the Capstone Assessment) and the higher bar of being issued with an electrician licence.

Recommendation

NECA endorses the development of a nationally consistent training course for final year apprentices to prepare them for the Capstone, noting that the course draws together previously achieved competencies and does not teach to the test. This includes a potential role of NECA in coordinating national pre-test support arrangements and a standardised approach to Capstone preparation including a review of operations and quality assurance mechanisms. This could include:

- **Using the NECA National RTO network to trial a *Capstone Assessment* readiness tool;**
- **Establishing a national capacity or entity to provide a central point for assessing candidates through the Assessment tool and the various state additional requirements required to bridge the gap to obtain a licence. This would mean working closely with state regulators and probably accepting the fact that there will be no consistent assessment for an electrician licence between states. However, this would assist with an orderly procedure to assist with the confusion that many candidates feel after the completion of the Certificate III; and**
- **Seeking a model for sustainable funding so that the employer or apprentice is not required to cover the cost of a *Capstone Assessment* readiness tool.**

4. Apprenticeship Pathway

Background

With the ageing of the Australian population, changing life career patterns, and continuing shortfalls in supply in the electrical trades, school leaver apprenticeships are no longer meeting most, or all workforce demands. Adults will again become an increasingly important recruitment source prompting demand for various alternative pathways to completion. Mature age/adult apprentices represent a real opportunity to reduce Australia's skills shortage, raise productivity and enrich the electrical contracting industry. The general view is that past work experience of mature age apprentices is valuable to an employer as they understand the basics of an employer's expectations and the fundamentals of what is required.

The proposed recommendations are based on the findings of the APP's sub-project *'Program 7 – Adult Apprenticeship Pathway Model'*, which was established to examine options for the adult apprenticeship pathway in the Electrotechnology Sector.

Key Issues and Recommendations

The Barriers in Adult Pathways in the Electrical Trade

The Need to address the Wage Disincentive

In recent history there has been a significant growth in the number of apprentices aged 25 years or over across the industry.

Whilst mature age apprentices were supported by many employers; the more recent wage increases have stopped most employers from using them. In August 2013 the Fair Work Commission announced:

> *Minimum award rates for adult apprentices would be increased, in recognition of the growing proportion of apprentices who are aged over 21 years (for apprentices commencing after 1 January 2014).*
>
> - *The rate of pay for a first-year adult apprentice will be 80% of the award rate, while a second-year adult apprentice will receive the higher of the national minimum wage or the lowest adult classification rate in the award*
> - *An employee who has worked full-time for an employer for at least six months or for 12 months as a part-time or casual employee before commencing an adult apprenticeship with the same employer will not suffer a reduction in their minimum rate of pay.*

The higher pay rates have adversely impacted the employment of mature age apprentices with a significant decline unless the worker was experienced in the industry, and/or had a number of relevant skills.

In addition, existing funding programs across government are not well integrated to support adult apprentices. Existing support should be more accessible for employers and apprentices. This includes promoting better understanding among employers of which funding vehicles best support different workforce development needs in particular SMEs.

Many employers are unaware of the incentives available for an adult apprentice including:

- Commonwealth – e.g. *Mature Aged Worker incentives* scheme for certain apprentices aged 45 years or older (all levels) who face particular barriers to employment and training; Support for *Adult Australian*

Apprentices (eligibility is 25 years) in National Skill Needs List occupations; *A recommencement incentive* available for employers employing an 'out of trade' (that is, unemployed and returning to the trade) apprentice in Certificate III; A range of additional incentives exist that also benefit an adult apprentice, including Living Away From Home Allowances and Trade Support Loans.

- State/Territory – e.g. as additional targeted commencement and completion incentives, rebates on payroll tax for wages paid to apprentices.

Recommendation

Given the adverse effect the recent industrial relations award conditions has had on the adult pathway into apprenticeships:

- **NECA calls upon the Federal Government to support employers who employ mature adult apprentices by providing employers with a wage subsidy that matches the differential between the hourly rate of a junior apprentice and adult apprentice**
- **NECA works with Government to consider a more integrated and simplified approach to supporting apprenticeships across funding programs.**

The Significance and Challenges of RPL in Mature Age Apprenticeships

It is widely accepted that recognising previously unrecognised skills and experience is beneficial for both individuals and employers. Recognition of Prior Learning (RPL) – in general across all qualifications is promoted as a strategy for getting existing skills formally recognised; facilitating further skills acquisition; and allowing for qualification completion in a shorter time. Skills recognition practice in Australia is governed by a set of underpinning policies and principles, outlined in the Australian Qualifications Framework, with only registered (or enterprise-based) training organisations able to undertake such assessments.

Whilst the rigorous efforts to improve uptake in recent years and the benefits of RPL generally being widely acknowledged and supported, the numbers are still low for electrical trade apprentices. This is substantial because individuals are not realistically able to demonstrate competency, even in basic underpinning units, without workplace access as an apprentice.

There are many variables and entry pathways which are not reported explicitly such as:

- RPL was completed but applicants do not complete all of the gap training – No AQF outcome;
- Applicants may already hold electrical licences (fitter or restricted) and looking to upgrade to electrical mechanic;
- Applicants may have completed a Certificate II in Electrotechnology (Career Start) with an extensive component of work experience and seeking recognition for additional vocational skills attained outside of formal study.

In practice the cost of an RPL assessment is an issue as it can be high and varies across jurisdictions and between registered training providers. The advice given by providers on RPL (and credit transfer) is also inconsistent and ad hoc, leading to confusion in how to engage with the process. There is a recognised need for training providers to model a consistent, predictable and effective approach to RPL.

Any RPL application under an apprenticeship must be supported by an Employer and RPL should be discussed mutually between an Employer and Apprentice at the time of negotiating a training plan with the RTO. Employers need to understand the risks, expense and inconvenience of undertaking an RPL assessment in the workplace.

Recommendation

Recognising that there is a low likelihood of RPL of full units of competency, NECA endorses a nationally consistent approach to the development of Industry specific RPL guides and tools to assist stakeholders to monitor and implement recognition processes that meet the requirements of the Industry.

The Guide and tools should be candidate focused (plain English workplace language, supportive and providing timely access to gap training) and meet workforce and business needs.

Gap Training and Early Completion

Whilst accelerated progression and early completion, in combination with RPL, can in theory fast-track an Adult Apprenticeship pathway, it is not seen as possible by the majority of employers in the industry. A number of cultural and systemic issues remain tied to the traditional competency-based apprenticeship model (most apprentices require the full four years to reach an acceptable level of competency).

In summary, the barriers to the wider acceptance of early completion include:

- Concern that faster completion may compromise the quality of the training and the skills acquired;
- Licensing and regulatory arrangements for the electrical trade qualifications do not accommodate any competency-based progression;
- Industry and employer attitude and resistance to change;
- Inflexibilities of training arrangements; and
- Occupational health and safety requirements in a heavily-regulated licensed trade.

Objections to any use of early completion are based on fears of reducing the level of industry skill levels.

The other issue in retaining the integrity of the apprenticeship model lies in the need to validate competencies that will satisfy the requirements for achievement of the 'on-the-job' component. This will include the robust collection of on-the-job evidence to verify workplace competency (safe and consistent application of workplace skills and attitude, which is now required in the electrical trade with the introduction of *profiling*). Workplace assessment of participants therefore plays a key part of the validation as it has high validity in determining whether the proposed Adult Pathway ensures they can competently perform the duties of an electrical tradesperson. There is also a view of the need to involve industry directly in the validation arrangements to bring independence to the process. Industry's role may include advising on approaches to validation of assessment, advising on the development of instruments to assess competency, reviewing the outcomes of validation and recommending on improvements to meet industry requirements.

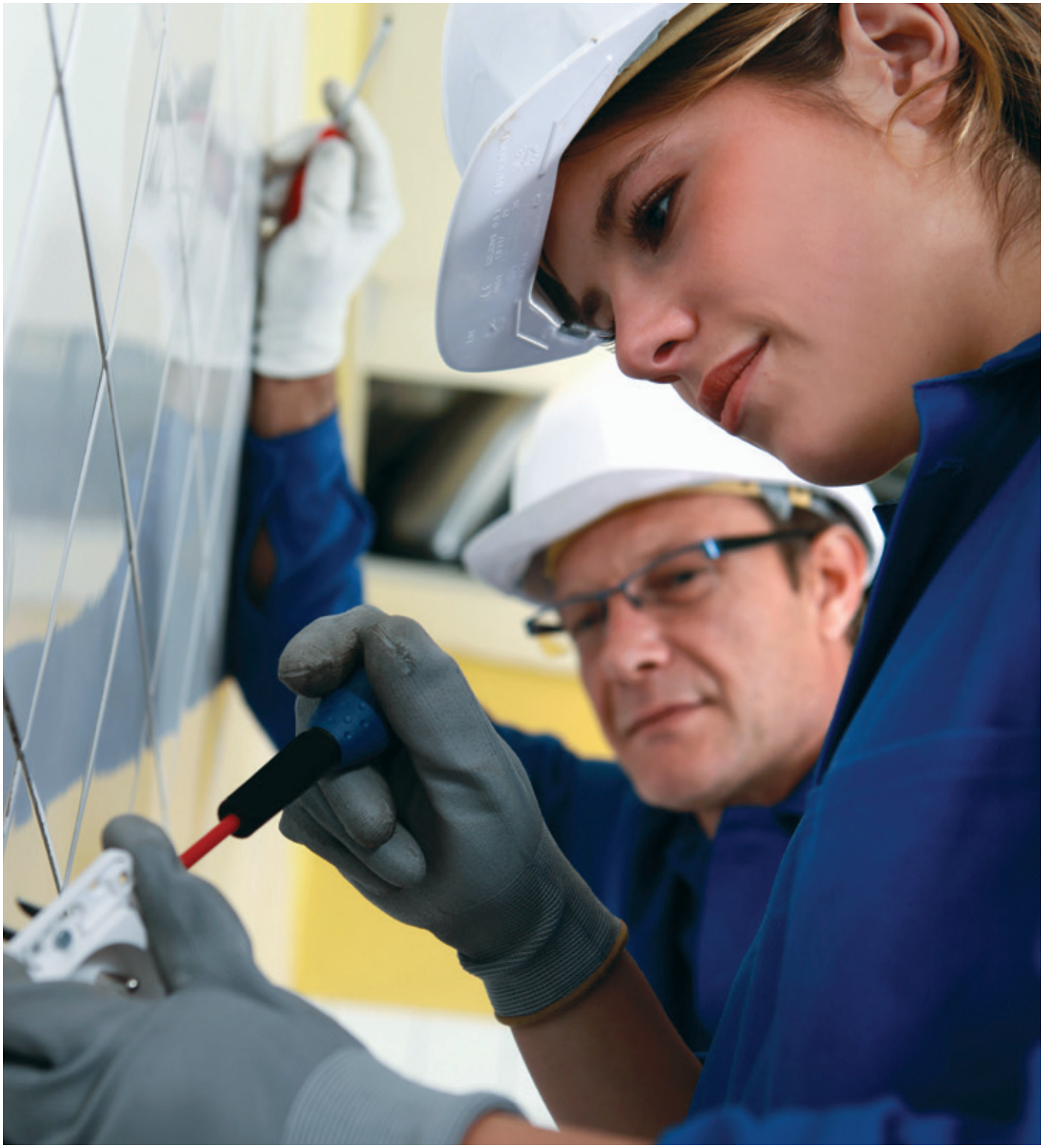
Recommendation

NECA endorses the use of RPL to acknowledge the practical skills gained from experience in a trade and from other informal learning, in combination with tailored gap training to complete the trade qualification ('advanced entry adult apprentices') but views it as crucial that this process is not be used as a mechanism for skill fragmentation and dilution.

NECA also recognises the resource intensive nature of RPL, skills gap training and shortened duration of Apprenticeships.

NECA supports the use of the NECA National RTO network to examine and provide advice on Gap Training Products where workplaces are open to the conduct of training and assessment.

NECA endorses the direct involvement of industry in the Validation Processes for Trade Skills Assessment in a workplace. This includes a role for Industry in advising on approaches to validation of assessment; advising on the development of instruments to assess competency; reviewing the outcomes of validation and recommending on improvements to meet industry requirements; and, the adoption of processes that allow the applicant to demonstrate that they can apply their current skills and knowledge to new situations and contexts.



5. Attachment 1 – National Guidelines

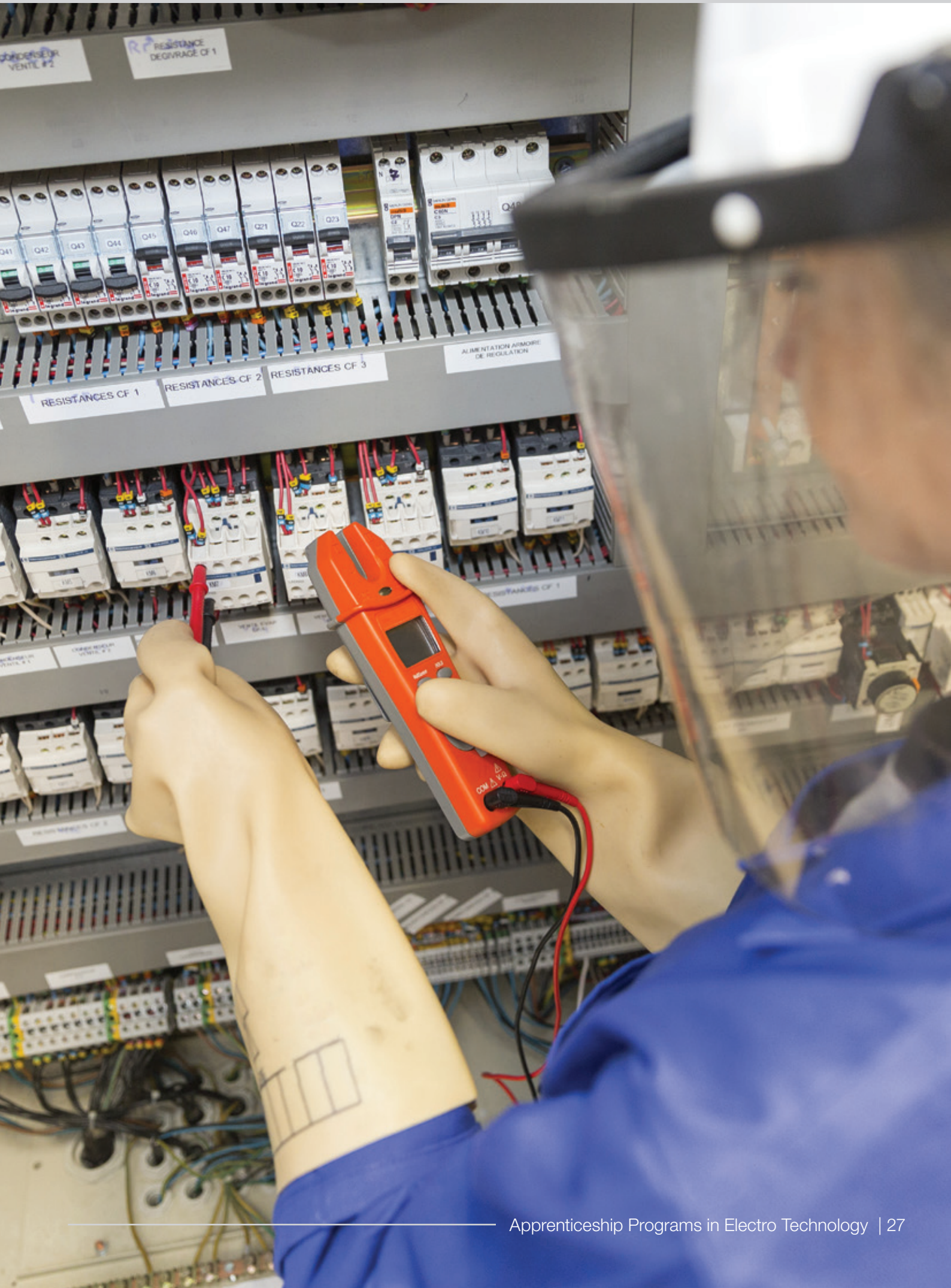
Guideline Component	Description
1. AIM	The aim of the electrotechnology pre-apprenticeship is to provide learners with industry specific training, combined with adequate time in a real (simulated) workplace to gain skills, knowledge and behaviours to enable transition into an apprenticeship. A pre-apprentice should be exposed to real workplace conditions that enable the pre-apprentice to develop competency, make informed decisions about their career pathway and build networks with an opportunity to gain an apprenticeship.
2. ELIGIBILITY and TRANSITION	The establishment of electrotechnology training programs for pre-apprentices must meet the above aim and enrolment into these programs should be targeted at students seeking apprenticeships. Entry into an apprenticeship may be gained during pre-apprenticeship training or subsequent to graduation.
3. PROGRAM STRUCTURE	**a.** The Certificate II in Electrotechnology, sourced from the nationally endorsed training package, will be the basis for all pre-apprenticeship training programs which will cover competencies for work entry program and provide grounding in safety and basic skills and knowledge for work in any Electrotechnology discipline. **b.** The selection of units of competency in the Certificate II pre-apprenticeship qualification will: – be in line with the qualification's packaging rules; and – comprise of, where possible, some or all units that articulate into the apprenticeship program. **c.** The selected units of competency should support the pre-apprentice's development and demonstration of: – Trade skills closely aligned to the apprenticeship; and – Employability skills and work skills. **d.** Pre-Apprenticeship Programs should incorporate: – Real workplace tasks into the training and assessment (this may also include simulated tasks); – Where the student is deemed in need, the development of literacy, numeracy and employability skills, as required throughout the learning program; and – Support services as required throughout the training and assessment, both on and off-the-job.

Guideline Component	Description
4. WORK READINESS	Work readiness is critical to preparing individuals for apprenticeships and broader employment. Pre-apprenticeships should form part of a systemic approach to delivering work readiness development opportunities to individuals by providing participants with: • A better understanding of what an apprenticeship in the industry entails; • The necessary practical basic hand skills and employability skills to make them job ready to work in the industry; and • Support for those with language, literacy and numeracy issues. Pre-Apprenticeship Programs should be used to take a participant to a skill level where they are more useful and productive upon employment, with a greater focus on the amount of time devoted to practical activities that should be built around the four themes outlined below: • Safe Work Practices; • Workplace Fundamentals; • Underpinning Knowledge; and • Practical activities and Hand Skills. Graduates of quality Pre-Apprenticeship Programs should be able to demonstrate the application of knowledge and practical skills including, at a minimum the ability to learn to: • Effectively and productively develop hand skills; • Develop workplace practices; • Safely solve problems; • Identify and select materials for electrotechnology work activities; • Use equipment and technologies; and • Dismantle, assemble and fabricate electrotechnology components.
5. DELIVERY	Pre-apprenticeship courses need to be delivered and assessed using strategies that reflect real work practice and activities. This requires RTOs delivering pre-apprenticeship training to: • Consult with industry to determine relevant tasks and projects; and • Make use of real work projects and tasks to provide pre-apprentices the opportunity to engage in meaningful work.

Guideline Component	Description
6. WORK PRACTICE COMPONENT	The role of work placement should be to provide context to the pre-apprenticeship and give value to the qualification. Employers have demonstrated preference for pre-apprenticeships over institutional delivery only, as the candidate has experienced 'life on the tools'. For the purposes of the Pre-Apprenticeship Program, the work practice component must consist of: • An on-the-job work placement with an employer (the work placement will be a period of unpaid work with an employer undertaken by the participant, with supervision provided by the employer, the training provider or both) OR • A learning and/or assessment environment that closely resembles the real workplace in its function and operation and provides access to a broad range of work related experiences and scenarios. While a workplace environment is highly desirable for both practice and assessment, it is recognised that where regulation prohibits pre-apprentices from undertaking any electrical work or an appropriate workplace environment is not available off-the-job simulated work practice will be utilised. *Principles of the Work Practice Component* The pre-apprenticeship's work practice will need to incorporate the following principles: • Work practice will expose the pre-apprentice to real workplace conditions. Real workplace conditions include but are not limited to the physical environment, stress and noise levels, degree of safety or danger, customers and clients and commercial outputs; • Work practice will contribute to the competency requirements and employability skills relevant to the Electrotechnology Certificate II pre-apprenticeship qualification; • Work practice will assist the pre-apprentice transition to an apprenticeship; • Real or simulated work tasks and projects will complement and contextualise the units of competency with a focus on developing the dimensions of competency i.e. all aspects of work performance as represented by task skills and job/role environment skills; and • Support services will be provided where required to support the student in achieving competency and effectively participating in a workplace to facilitate pre-apprentice completion. Where there is a need for the provision of a range of simulated environments to support the workplace component, the practical training environments and the range of simulated activities need to be relevant to 'real work activities' that pre-apprentices complete – including working on '*live*' electrical activities.

Guideline Component	Description
	Simulations that are realistic and therefore authentic will include the following elements: • Emulation of realistic and authentic workplace situations; • Learning activities that develop technical specific or work ready skills; • Learning activities and assessments that simultaneously reflect industry standards and curriculum requirements; and • Where the simulated learning environment results in the re-creation of a physical environment the following elements should also be assessed: – Equipment, resources and facilities meet industry standards – Standard operating procedures of selected equipment – Industry protocols of selected processes.
7. ADMINISTRATION OF WORK PRACTICE COMPONENT	RTOs will be required to take on a role in coordinating and monitoring a work practice component. This will include: *Coordinating Work Placement* – where the RTO will have a role in: • Assessing the pre-apprentice and matching them with potential employer/s; • Contacting suitable employer/s and arranging the on-the-job work placements; • Outlining with the employer/s, the aim of the program, their roles and responsibility; • Preparing and assisting the pre-apprentice with their on-the-job work placement. *Monitoring Work Placement* – where the RTO will have a role in: • Providing the pre-apprentice with support services as required; • Conducting site visit/s and contacting the employer to monitor and track the pre-apprentice's progress; and • Providing evidence of the above. The administration of the work practice component will include approaches outlining how designated competencies can be validated in the workplace and can therefore be recognised as part of the apprenticeship. *Evidence of the Work Practice Component* could include a log book or similar form of evidence of the pre-apprentice's work practice and include: • Dates and details of each work site attended (e.g. RTO workshop, employer workplace, industry site visit); • Workplace induction; • Workplace tasks/projects undertaken; • Employer signoff of on-the-job work placement; and • RTO supervisor sign-off where off-the-job simulated work practice is part of the work practice component.

Guideline Component	Description
8. CERTIFICATION	Pre-apprentices completing the requirements of the Certificate II Pre-Apprenticeship Program will receive a testamur for the Certificate II qualification and a Record of Results listing all units of competency completed. A Statement of Attainment will be issued to pre-apprentices who complete single or multiple units of competency but do not complete all units as specified in the packaging rules of the Certificate II qualification.
9. CREDIT	Graduates who successfully complete UEE22011 Certificate II in Electrotechnology as a pre-vocational or pre-apprenticeship course: • Will be given credit, should they commence an electrical apprenticeship, where units will be credited into the Certificate III for their off the job component i.e. completion of the pre-apprenticeship can be credited to the completion of the off-the-job training part of the apprenticeship • Credit to the on-the-job component will be reflected into the apprenticeship when designated competencies have been validated in the workplace and be recognised as part of the apprenticeship.
10. FUNDING	Funding for a pre-apprenticeship training program should be provided for the: • Delivery of the UEE22011 Certificate II in Electrotechnology qualification; and • The coordination of a monitored and supervised work practice component that underpins the determination of the pre-apprentice's competency to industry standard. This will involve funding to: – Coordinating the work placement including contacting suitable employer/s and arranging the on-the-job work placement – Monitoring the work placement including site visits and support – Validation in the workplace – including evidence of the work practice component and log book with employer sign off have been completed.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6. Attachment 2 – Comparison of Jurisdictions

Jurisdiction/ regulator	Linkages between qualification completion and licence eligibility	Pre-test support arrangements	Role of RTOs in delivering Capstone programs
Victoria Energy Safe Victoria (ESV)	If the RTO awarding the qualification has not conducted final assessments under the auspices of ESV, then apprentices will also need to successfully complete the Licensed Electrician's Assessment (LEA). Currently, to meet the requirements of ESV and the Electrotechnology Training Package, all RTOs have made arrangements with the ESV for their apprentices to undertake the LEA in the final year of their apprenticeship as part of the process and requirements of gaining the qualification rather than undertaking final assessments conducted by the RTO. The LEA is conducted by a body approved by ESV. The LEA is a combination of three separate assessments, sat at three different times: • Safe Working Practice for Electricians Assessment (SWP) – SWP tests their ability to safely disconnect then reconnect a piece of electrical equipment; • Licensed Electrician Theory Assessment (LET) – the theory tests a broad range of knowledge; and • Licensed Electrician Practical Assessment (LEP) – The LEP is a practical test in four parts (approximately 2.5 hours in length): wiring a meter box and switchboard, MEN system testing, identifying visual defects and testing an installation. All assessments have a minimum pass mark of 75%. Although not compulsory, most LEA candidates enrol in courses which prepare them specifically for the LEA assessments. ESV outsources the LEA to EPIC and Melbourne Polytechnic.	Capstone pre-test support arrangements are as provided by the RTO. There is no financial support available outside of Certificate III support.	RTOs provide the Capstone Assessment as part of the qualification and in some cases will provide coaching.

Jurisdiction/ regulator	Linkages between qualification completion and licence eligibility	Pre-test support arrangements	Role of RTOs in delivering Capstone programs
New South Wales NSW Fair Trading (Department of Finance and Services)	In general apprentices will require completion of Certificate III in Electrotechnology Electrician (UEE30806 or UEE30807 or UEE30811) and both of the following: • A certificate of Proficiency as an Electrician or an Electrical Mechanic from the Department of Education and Communities (DEC) or the Vocational Training Tribunal (VTT); and • At least 12 months relevant electrical wiring work experience utilising knowledge and understanding of the AS/NZS 3000:2007 in the residential, commercial and/or industrial areas required by NSW Fair Trading 'Referee's Statement Electrical Work' form current at he date of the application. For the standard apprentice pathway, there is no regulator additional testing. The Capstone Assessment as part of the Certificate III qualification is, in the majority of cases, carried out during the course. However, in a minority of cases, students who have struggled to pass the Capstone Assessment will make other arrangements to undertake the test elsewhere.	There are no specific pre-test support arrangements except those that may be provided by the RTO in the normal course of progressing through the Certificate III qualification. There is no financial support available outside of Certificate III support.	Where a student has a statement of attainment from an RTO with all units except the Capstone Assessment, that student may use any RTO with the Capstone Assessment on its scope and undertake the assessment. After successful completion students may go back to the original RTO for the issue of the complete qualification or use the other RTO for the same purpose where that RTO has the full Certificate III on its scope. RTOs may also offer Capstone Assessment coaching classes whether they have the Capstone Assessment on the scope or not.

Jurisdiction/ regulator	Linkages between qualification completion and licence eligibility	Pre-test support arrangements	Role of RTOs in delivering Capstone programs
Queensland Electrical Safety Office (Department of Justice & Attorney-General)	To be granted a licence in Queensland apprentices will need to apply to the Electrical Safety Office (ESO) with: • Completion of the Certificate III in Electrotechnology Electrician qualification; • Must be holding an electrical work licence (apprentice); • A statutory declaration from the employer that outlines the detail of the electrical work undertaken during the apprenticeship; • Current resuscitation competence (CPR) certificate; and • Completion statement details provided and confirmation received from your SRTO that completion statement has been forwarded to the department. The ESO has no direct role in the Capstone Assessment but retain the right to audit applications. Under the Section 44.2 of the Queensland Electrical Safety Regulations the ESO has the power to be "satisfied the regulator the applicant is competent to perform electrical work the subject of the licence". This may be applied where the ESO believes that an RTO has not performed their role well or other reason to doubt the veracity of the application.	There are no specific pre-test support arrangements except those that may be provided by the RTO in the normal course of progressing through the Certificate III qualification. There is no financial support available outside of Certificate III support.	RTOs provide the Capstone Assessment as part of the qualification and in some cases will provide coaching.

Jurisdiction/ regulator	Linkages between qualification completion and licence eligibility	Pre-test support arrangements	Role of RTOs in delivering Capstone programs
Northern Territory Department of Lands Planning and the Environment	To be granted a licence in NT apprentices will need to apply to the Electrical Workers and Contractors Licensing Board under the Electrical Workers and Contractors Act and have: • Completion of the Certificate III in Electrotechnology Electrician qualification; • Successful completion of a colour identification test; • A statutory declaration from the employer that outlines the detail of the electrical work undertaken during the apprenticeship; • A copy of your Notice of Completion of Training (issued by Australian Apprenticeship Centre NT); and • A copy of their final academic record (issued by the RTO). All apprentices in the Northern Territory have their e-Profiling report reviewed by a panel that includes an employee representative, small employer representative, large employer representative, Australian Apprenticeship Centre, Group Training Organisation and the RTO. This panel makes a recommendation to the RTO on whether the apprentice should be allowed to enter a Capstone test or whether they require further workplace experience. The Capstone Assessment is typically a three-day course. After successfully completing the course, the applicant will then need to submit the certificate and certificate letter to the Electrical Workers and Contractors Licensing Board.	Capstone pre-test support arrangements are as provided by the RTO. There is no financial support available outside of Certificate III support.	RTOs provide the Capstone Assessment as part of the qualification and in some cases will provide coaching.

Jurisdiction/ regulator	Linkages between qualification completion and licence eligibility	Pre-test support arrangements	Role of RTOs in delivering Capstone programs
Australian Capital Territory Environment, Planning and Sustainable Development Directorate – Planning	To be granted a construction occupations licence (unrestricted electrical) in the ACT under the Construction Occupations *(Licensing)* Act 2004 apprentices must complete: • Certificate III in UEE30811 • The Capstone Assessment (UEENEEG105A, Verify compliance and functionality of low voltage general electrical installations) must be undertaken as part of the Certificate III at the RTO and not by RPL.	Capstone pre-test support arrangements are as provided by the RTO. There is no financial support available outside of Certificate III support.	RTOs provide the Capstone Assessment as part of the Certificate III qualification and in some cases, will provide coaching.
Western Australia EnergySafety Division (Department of Mines, Industry Regulation and Safety)	To be granted a licence by EnergySafety in WA Apprentices will need: • A Trade Certificate issued by the Department of Training and Workforce Development; • A copy of the Certificate III in Electrotechnology Electrician issued by an RTO; and • Evidence of successful completion of the Capstone Assessment is required. RTOs must apply to EnergySafety for approval of its electrician training scheme.	Capstone pre-test support arrangements are as provided by the RTO. There is no posted financial assistance available outside of Certificate III support but reference has been made it such support in the past.	RTOs provide the Capstone Assessment as part of the qualification and in some cases will provide coaching.
Tasmania Workplace Standards (Department of Justice)	To be granted an electricians licence in Tasmania the following must be required: • Completion of a Certificate III in UEE30811; and • A certificate from Skills Tasmania (Tasmania's State Training Authority) verifying the completion. There is a yet to be clarified employer minor input into the process. The regulator reserves the right to audit applications based on the Capstone Assessment.	Capstone pre-test support arrangements are as provided by the RTO. There is no financial support available outside of Certificate III support.	RTOs provide the Capstone Assessment as part of the qualification.

Jurisdiction/ regulator	Linkages between qualification completion and licence eligibility	Pre-test support arrangements	Role of RTOs in delivering Capstone programs
South Australia Office of the Technical Regulator/ Consumer and Business Services	To be granted an electricians licence in South Australia the following is required: • Registered as an apprentice who will be performing on-site work as a restricted worker under the Plumbers, Gas Fitters & Electricians Act 1995 under a Contract of Training with Traineeship & Apprenticeship Services (TAS); and • Completion of the Certificate III in Electrotechnology Electrician qualification. TAS advises Consumer and Business Services (CBS) when the apprenticeship is successfully completed to begin the licensing process. CBS have no direct role in the Capstone Assessment.	Capstone pre-test support arrangements are as provided by the RTO. There is no known financial support available outside of Certificate III support.	RTOs provide the Capstone Assessment as part of the qualification and in some cases will provide coaching.

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