national electrical and communications association

# National Electrical and Communications Association - Submission

*Jobs and Skills Australia (JSA) Industry Capacity Study Discussion Paper*

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# Introduction

The National Electrical and Communications Association (NECA) provide this submission in response to the discussion paper circulated by the Jobs and Skills Australia (JSA) seeking industry input into a capacity study on the workforce needs for Australia's transition to a clean energy economy and offer NECA's feedback and suggestions.

NECA and its members are highly engaged in this space, particularly in the energy and electrotechnology sector and the design, installation and maintenance of the relevant infrastructure required for Australia's transition to renewables.

NECA is the peak body for Australia's electrical and communications industry, which employs 344,370 people and turns over more than $82bn annually. NECA represents over 6,500 businesses performing works including the design, installation, and maintenance of electrical and electronic equipment in the construction, mining, air conditioning, refrigeration, manufacturing, communications, and renewable energy sectors.

NECA has advocated on behalf of the electrotechnology industry for over 100 years and helps its members and its industry to operate in an efficient, safe, and regulatorily compliant manner. NECA represents the interests of electrical and communication businesses to all levels of government and in regulatory, legislative and industry development forums. It is also a foundation member of the Australian Chamber of Commerce and Industry (ACCI).

NECA members make an essential economic contribution – connecting businesses, homes, and infrastructure – encouraging investment, improving reliability and energy security, and delivering affordable, environmentally sustainable outcomes. The safety and reputation of the electrical industry is critical to tradespeople, consumers, and the community.

NECA also plays an integral role in the development of the next generation of Australia's electrical and communications tradespeople and contractors. Through its associated Group Training Organisations (GTOs) and Registered Training Organisations (RTOs), NECA offers employment and trade training to some 4,800 apprentices nationally. Its success is clear: NECA boasts a consistent 90% apprenticeship completion rate,

compared to the national average of just 55%. Our female participation in apprenticeships sits above 15% against an industry average of less than 5%.

NECA delivers high-quality holistic, industry-relevant programs, including pre-apprenticeship, apprenticeship, and post-trade accredited and industry-specific training, to the electrical and communications industry. It proactively strives to build diverse workforces, supporting indigenous and mature aged apprentices and promotes career paths to school students and school leavers.

**Item 1: Participation and Barriers**

The recognition of the need for action (8/10 people agree we are headed for environmental disaster unless we change our habits quickly) presents an opportunity to attract new workers to the clean energy transition, including those for whom trades have been a non-traditional pathway, such as women. By highlighting the potential for meaningful and impactful work in the clean energy sector, and emphasising the value of diverse perspectives and experiences, clean energy employers can appeal to individuals from all backgrounds who share a passion for the environment.

A diverse technical workforce is needed, but priority social cohorts, including women, are more likely to find the trades later in life, when adult wages are a barrier to employment as an apprentice – funding to bridge this gap would give training providers a better chance of increasing women's participation in trades-based apprenticeships.

In its most recent Pre-Budget submission to the federal government, NECA proposed the introduction of a Mature Apprentice Subsidy Scheme (MASS) and believes the introduction of this scheme – on a trial basis for the energy sector offers an excellent opportunity to both redress skills shortages in the longer term, and to increase the level of participation by women in trades-based employment. This would also assist and deliver opportunities for those participants transitioning into the clean energy sector from other vocations.

Adult apprentices are most expensive in their first and second years of training. Whilst they constitute less than 5% of NECA Apprenticeships' annual intake, they comprise 50% of applicants. This especially disadvantages women, who are overwhelmingly likelier to apply for apprenticeships when over 21.

At a time of economic disruption that has seen many workers displaced from legacy industries and/or seek mid-career retraining opportunities, a Mature Apprentice Subsidy Scheme would remove wage barriers for businesses wishing to engage mature-age apprentices.

Mature-age apprentices (particularly those with many years' work experience) offer benefits as potential tradespeople that transcend manual skills and knowledge, such as maturity, life experience, industry/business experience, increased completion rates, higher qualifications, better appreciation of safety protocols, and often leadership.

Conversely, young people completing university studies who can't find related jobs or have rethought their careers are equally discriminated against, as anyone aged over 21 at commencement is treated as "mature-aged" for remuneration purposes by Modern Awards.

Broadly, the idea is for employers of mature-aged apprentices to be able to claim the difference or gap, as a government rebate, between wage costs of a junior apprentice and those of a mature-aged apprentice, eliminating the disincentive to bring employees who are older into the trades sector.

The benefit to the clean energy sector is that skills shortages can be met by quality candidates who are eager to work, have real life experience and bring maturity to highly technical roles. The benefits to government include real retraining options for people whose industries have been disrupted. The proposal offers the government tangible value, economic benefits, and return on investment.

Greater female participation can only grow in work areas in which the culture is respectful, and a safe environment is provided that also addresses specific needs of each cohort in the workplace. Flexibility regarding work hours and support mechanisms for young families should also be addressed. Significant change to workplace culture is required to attract greater female participation.

**Item 2: Data**

Information presented at the ANZSCO 4 level is preferred as it is the easiest to align to VET training products, which have specific occupational outcomes. Having said that, if data can be aligned to existing (and only the most relevant) VET training products in the study, it would help providers like NECA to plan their training provision. At a minimum, it

would be help if the study categorised clean energy occupations as either requiring VET or Higher Education (or both) and provided a view of the need/demand at a regional level, particularly as the transition is expected to impact urban and regional Australia differently (example: the Victorian Skills Authority's Victorian Skills Plan dashboard).

A study limited to ANZSCO defined occupations will not capture the information needed to understand the clean energy workforce and we would appreciate seeing work like the National Skills Commission's 25 Emerging Occupations expanded so that we can understand which new jobs (or skills) are appearing in the labour market.

A crucial consideration in seeking to adjust policy settings to encourage skills growth in renewable energy occupations, is that there is very high alignment between the knowledge and skills required to work in renewable energy and the existing electrotechnology sector. For example, a licensed electrician must have the full knowledge and skills gained from a four year apprenticeship to gain an electrical license – a necessity for consumer safety – but these skills could then be used installing and maintaining renewable energy systems as readily as they could working on traditional electrical technologies. In essence, wiring and controlling electrons to go where they should safely is the same task regardless of how those electrons were generated. Furthermore, it is not possible to complete the requirements for an electrical license while working on just solar panels alone, so until other technologies emerge, more nuanced policy settings are required to support and encourage enterprises focused on renewable energy generation rather than seeking to identify renewable-only skills as a separate vocation.

In the generation sector, the skills required to build and maintain renewable generation are largely enterprise-specific, driven by the overseas manufacturers of the generator, eg wind turbines sourced from Europe. Once installed, the transmission and distribution network skills to take that clean energy to our cities are the same skills currently needed to build network connecting fossil fuel power generators, and the demand for additional network technicians to build these new lines will far outstrip the skills demand to set up the renewable generators.

This alignment between current skills and the future renewable workforce is a benefit: while it makes it almost impossible to invest in skills that purely support renewables, it means that the majority of the VET structure required to support renewable energy skills already exists, we simply need to grow capacity. Government investment in this capacity to accelerate the sector's capacity to train for this rapidly rising demand would achieve a strong ROI for Australia and avoid the forecast workforce shortfall - possibly the most crucial ingredient in achieving the Nation's energy transformation commitments.

**Item 3. Skills**

The study's analysis of skills transferability of existing workers will hopefully include the type of digital skills needed and the extent to which upskilling will be needed. In VET, we do not have a measure of prospective students' digital literacy (like we do with Language, Literacy, Numeracy) and we need to understand if the baseline digital literacy for workers in the clean energy sector is likely to be higher and whether additional supports are needed to help students develop those skills.

Australia's unemployment rate is historically low with an historically high participation rate, making it extremely difficult to deliver the workforce that is going to be required without significant investments in training both on the job and in the VET System. Well trained and qualified employees will be to be retained only where a career path, skills enhancement and growth can be foreseen by the employees.

To rectify these issues a framework of additional investment in VET, employee and apprentice mentoring and ongoing upskilling which is industry led is required.

Delivering the workforce requires a dedicated VET plan. The Energy and Jobs Skills Council is an excellent first step in assisting in providing this focus on the sector. Technologies to support Australia's renewable energy transition are still evolving, so many of the future skills needs are not yet defined. The Commonwealth Government needs a flexible approach that can respond to demand for new skills training as technologies emerge.

The Energy Jobs and Skills Council is being established to have strong and broad connections into industry and so will be best placed to provide accurate and timely advice to government on skills investment needs as they arise. The emerging fields of hydrogen as a fuel and fuel cells as commercially-viable alternatives to current generation are a good case in point: VET skills can't be defined until the technologies reach commercial

viability, but when they do we will need investment in training infrastructure to provide skilled workers rapidly.

The Energy JSC will be across local and international technological developments and have strong ties into manufacturers and suppliers. Similarly, industry-led non-profit training options will be best place to rapidly respond to these new demands and provide a better return on investment for any support provided.

An Energy Apprenticeship Support Network focused on increasing completion rates that can match industry led RTO's and exceed them, by engaging with the TAFE Students, TAFE, Industry, employers, and the apprentices in VET and on site. That, through mentoring and supporting apprentices, actively works to drive up completion rates.

Funding to support dedicated industry-led Skills Centres, which are equipped to train apprentices with the latest technology and educational tools are urgently required. Unfortunately, however, across Australia there are fewer than 50 RTOs currently delivering the Electrical sector's trade qualification (UEE30820) and fewer than 20 RTOs delivering the Electricity Supply sector's trade qualifications (UET30621 & UET30821).

This is a result of:

- The equipment and resource intensive nature of the energy industry's training programs causing many RTOs to consider training provision unviable.

- The privatisation of Australia's utilities and the subsequent closure of their internal RTOs.

Not surprisingly, the existing RTOs are at capacity and Industry members across Australia are adamant that "we need more trades, but we need more trade schools as well".

**Students seeking to commence an electrotechnology apprenticeship are already unable to secure places in most parts of Australia, with RTOs, including TAFEs, at capacity in some cases up to 18 months in advance. In one jurisdiction, even the waiting lists have been suspended, and we are only at the beginning of the renewable-energy-driven wave of additional demand for these skills.**

The sector is not only one the most rapidly growing, but also rapidly changing sector and skills and training need to match this pace. The current training landscape is complex and

has a long history. For example, the sector is now experiencing unprecedented acceleration of change in energy management technology and efficiency. The industry must now start to match this evolution of the industry and as such our training must evolve as well, without losing the focus on safety, quality and reliability that has been developed through industry collaboration. Flexibility and mobility are key.

Attracting young people to Apprenticeships is an ongoing challenge. Many young men and women think they may be interested in the Electrical trades but do not have the level of conviction needed to commit to a 4-year Apprenticeship. Pre-Apprenticeship programs have proven a particularly successful means of addressing this inherent reservation as they provide program participants with a 'taste' of the industry and assist them to decide if an electrical trade career is for them.

Cohort specific initiatives, such as female and indigenous-only pre-apprenticeship programs also assist to develop the skills, knowledge and confidence required for young people from these sections of the community to compete on a level playing field for Electrical Apprenticeship positions.

Not for Profit Industry Associations such as NECA can assist Contracting businesses to better understand the often very complex world of Apprentice employment and, with this understanding, become confident enough to take on one or more Apprentices. Industry must be confident that potential Apprentices have sufficient Foundation Skills to enter the trade so that young people are set up for success from the onset.

Further entry-level Assessments for the STEM based apprenticeships are a critical component of any recruitment.

It is widely recognised that the energy industry is suffering the most severe skills shortages of all industries. The National Council for Vocational Education Research forecasts electrical trades will be the number one skills shortage in the next 10 years. Supporting industry to recruit and retain apprentices and NECA is committed to assisting the Government to implement initiatives in this space.

While not technical in nature, culture change training to provide tangible changes in poor workplace culture is also desperately required to provide safe, respectful and professional places of work.

## Regional Perspective

The opportunities being derived from the Government's *Powering Australia Plan* will deliver long term benefits to regional and rural communities if planning and procurement processes are based on best practice and not lowest price. This is required to both train the energy and skilled tradespeople and employees that will range from apprentices, managers, and those transitioning out of in emissions-intensive industries.

It has been the experience of NECA vocational preparedness and training in culturally diverse communities' programmes must be carefully planned and engaged with local industry such that training, and education can be undertaken at times on site where economies of scale do not provide for major infrastructure for training to be provided.

First Nations communities should be engaged directly in the communities in which they reside. There is diversity of perspective and experience within each community, and this must be respected while creating genuinely local Aboriginal Partnerships.

Regarding workers transitioning, it has been the experience at NECA that reskilling can have a major financial impact for mature workers. As such it is important that the financial barriers are removed so that energy sector jobs are seen as both a short- and long-term option for those leaving industries impacted by new policy. Transition training should be supported during the training and reskilling of workers, particularly in regional areas with limited industries.

NECA further notes that to alleviate the shortage of appropriate training staff and teachers NECA would recommend programs similar to our *Tradie to Trainer* where experienced workers looking for less labour-intensive work or lifestyle changes can transition into the teachers of the future.

It has proven a successful program for getting great mentors and teachers with life experience that can be passed on to the new work force. However, these potential trainers are drawn from the same shallow pool of workers, and with worker scarcity driving up wages while training investment does not keep pace, the financial disincentive for becoming a trainer is being exacerbated.

NECA seeks to work constructively with the Department, and the government, on this important task. To arrange NECA's further participation in the establishment of JSA, or should you wish to discuss any matter relating to the electrotechnology industry, please contact [redacted]

Yours sincerely

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