Jobs and Skills Australia
Australia's Clean Energy Workforce Discussion Paper
RMIT University Submission
May 2023

1. Introduction

The Australian Skills and Workforce Ministerial Council has rightly charged Jobs and Skills Australia (JSA) with the responsibility to develop the evidence base required to respond to changing skills and labour needs in the economy. Through its capacity study on the emerging workforce needs for Australia's transition to a clean energy economy, JSA will support workforce planning to build a strong and vibrant clean energy sector and deliver energy transition and the transformation to a net zero economy by 2050.

As JSA discusses in its Clean Energy paper, Australia is reshaping the way it generates, uses and exports energy and needs a clean energy workforce skilled in the development, generation, storage, transmission, distribution, supply, and on-going use of energy generated from renewable sources. In 2020, electricity generation was the largest component of Australia's gross emissions (32%), followed by stationary energy (19%) and transport (18%). Significant investments in clean energy technology that supports the **electrification** of houses, vehicles and industries will go a long way towards reducing emissions, achieving net zero by 2050, and cutting power costs. ***This transition will not be possible, however, without a workforce equipped with the right skills.***

RMIT is supportive of the Commonwealth Government's and JSA's approach to workforce planning because we acknowledge that our current workforce is not yet a modern workforce: a stark skills gap exists throughout all sectors and skill levels. This issue cannot be fixed solely by a migration-focused solution. The provision of knowledge and skills alone, however, cannot be an end in and of itself. **Planning for this future workforce requires a long-term perspective to build adaptive career paths for individuals, rather than focusing solely on short-term programs, jobs and insecure work.**

The timing could not be more appropriate for JSA's task, with the Government also working through potential systemic changes to the higher education system through the Australian Universities Accord review (the Accord) and its negotiations with States and Territories around the next phase of a National Skills Agreement.

RMIT believes that the future of work in Australia will not be solved simply by more vocational or higher education: it will require both and must include blends of skills and education that are acquired and renewed over a lifelong journey through learning experiences that will be unique for every Australian.

RMIT has, in its submission to the Accord, called on government to **consider the development and design of a consistent and nationally recognised spectrum of work-based-learning qualifications**. This spectrum of qualifications will combine the practical skills taught in vocational education with the analytical knowledge acquired in higher education, co-designed and delivered with industry.

We argue that it is precisely this type of policy reform and program design that is needed to build a strong and vibrant clean energy sector.

2. Connecting the Clean Energy Skills Needs to System Reform Opportunities and Tertiary Education Capabilities

2.1 RMIT supported the Commonwealth Government's establishment of JSA and its fundamental role in understanding and outlining the challenges to meeting the country's workforce needs, particularly those that lead to a clean energy future. The holistic approach required to fulfil JSA's role successfully is reflected in the current discussion paper's overview of the clean energy workforce study's relationship to other work being undertaken by the Commonwealth and States and Territories. In addition to what is noted in the discussion paper, however, RMIT urges JSA to incorporate the policy conversations being held around the Australian Universities Accord, the National Skills Agreement and the National Reconstruction Fund into its clean energy workforce study considerations.

2.2 RMIT's Accord submission argues **that better integration of the tertiary education system will substantially aid Governments in responding to the country's skills development needs.** More specifically, RMIT argues for:

- A better integrated system joining vocational education (VE) and higher education (HE) through more applied learning models/work-based learning.
- Coherent Commonwealth Government policies and funding in 'accord' with State and Territory governments to invest in work-based learning that connects across the vocational and higher education interface.
- A review of funding for learning and teaching with the intent of introducing standardised student contributions and supporting Australians to continually access university and/or vocational education throughout their working lives.
- Funding and policy arrangements moving toward a more nationalised and collaborative approach to matching the effective supply and demand for knowledge and skills.

The way we invest in learning requires a longer lens which values the lifelong quality of educational experiences. Students in Australia are no longer either a 'school-leaver' or a 'mature-aged' student; they are skilling, re-skilling, up-skilling, and navigating educational pathways between work, skills development, and aspirations across their lives.

While lower Australian Qualifications Framework (AQF) and occupational skill levels are serviced by vocational certificates, apprenticeships and traineeships, there is a significant structural gap in the provision of applied learning programs — often spanning between associate degree, higher apprenticeship, diploma, and industry-certified skills — that form pathways to skilled employment at the mid-tier paraprofessional level of knowledge application.

This is a critical weakness in Australia's labour market outlook, as the livelihoods of a large cohort of paraprofessionals — many on below-median wages — such as engineering technicians, executive assistants, project administrators, building and architectural surveyors, chefs, retail and hospitality managers, and ICT technicians are at risk of disruption.

The current siloed approach to VE and HE is particularly challenging for Australians with less previous education who are seeking (or forced) to transition from existing occupations or industry sectors toward areas of new employment demand like those in the clean energy

economy. These workers are underserved, in some instances critically and experience the highest barriers to reskilling.

The sustained growth and productivity of many key industry sectors, including those employing the clean energy workforce, relies on the development of appropriately skilled and qualified workers in these 'mid-tier' areas.

Further, with 74% of businesses expressing support for employing university or TAFE students as higher-level apprentices or cadets, dual sector institutions like RMIT understand the strong appetite for new apprenticeship-style training contracts beyond the traditional trades.

The Australian Government's recent Advanced Apprenticeships pilot demonstrated the appetite from industry and the educational sector for higher-level apprenticeships. These types of courses, however, are not embedded in Australian policy as they are in places like the United Kingdom which have embedded qualifications such as Degree Apprenticeships. In Australia, these types of courses remain the sporadic exception, not the well-understood norm. Courses at the 'mid-tier' of the AQF lack a specific identity and value for potential learners who are still accustomed to the traditional ideas of undertaking either TAFE, university, or work.

If Australia is to be serious about its intent to design a system that encourages and enables lifelong learning, we must recognise that adult learners require education solutions that accommodate their need to work alongside that learning (and wage) uplift. This will only be possible with better integration across the country's tertiary education sector under a unified national strategy to implement work-based-learning qualifications within a revised AQF.

2.3 The **workforce transitions** required by the Australian economy overall, and particularly those with the size and significance of the clean energy workforce, **must be done at a systemic level.**

RMIT agrees, furthermore, that the effective delivery of clean energy specific education and training is vital to Australia's transition and requires an approach that includes

- the introduction of new, exclusively clean energy focused qualifications
- Systematic frameworks, definition and funding that enable short form skills (skillsets, microcreds) to bridge immediate skills gaps in critical occupations
- the incorporation of clean energy skills and knowledge into existing qualifications (for example ensuring all electrical apprentices are skilled in rooftop solar installation and maintenance); and,
- the production of sufficient graduates from more generalised courses (eg many engineering and science graduates) with the capabilities needed to meet the increased demands resulting from the transition to clean energy and the move to a wider clean energy economy.

In addition, incentives to reskill existing workers and attract new students across Australia's education and training system are insufficient and must be reconsidered, and the uncertainty and unmapped nature of career pathways must be addressed. Special attention is needed to fix inconsistencies in access to education and training across regions, particularly in rural and remote areas where the cost of delivery is high, markets are thin and attracting educators is difficult.

While the JSA paper recognises that proactive, effective, long-term government support and coordination is required across education, training, migration, and industry if we are to meet our workforce transition needs, an integrated approach has proved challenging in the past. **Our view is that RMIT's proposed approach to systemic tertiary education reform is uniquely suited to meeting the challenges Australia faces in training its future clean energy workforce.**

2.4 JSA has noted that the scale of transformation ahead will also require us to create **genuine opportunities to increase the participation of women, First Nations Australians, and other historically under-represented cohorts at all levels in the energy sector and traditional trades**.

RMIT agrees and argues that reducing barriers to employment requires that individuals (particularly those from disadvantaged backgrounds) are able/empowered to **access** higher and vocational education as required throughout their lives.

This is why RMIT is strongly supportive of

- the benefits of building an aligned and coherent education and employment sector that leads to increased productivity growth and incomes;
- a work and labour market structure that promotes the benefits of a more inclusive workforce including pay equity and equal opportunities for women;
- fostering increased labour force participation and labour supply by reducing impediments and improving opportunities for work and career progression;
- collaborative partnerships between governments, industry, unions, civil society groups and communities, including place-based approaches to increase re-skilling, upskilling, and cross-sector support for continuous lifelong learning;
- clear pathways between, within and combining school, post-compulsory education, skills training and lifelong learning; and,
- 'earn and learn' models of education – such as higher apprenticeships – provide opportunities to engage priority cohorts in education and employment and reduce financial constraints often imposed by self-funded learning.

2.5 RMIT believes that at least some of the **workforce challenges faced by the clean energy sector can be resolved by more mid-tier qualification options including more co-designed with industry**.

Employers in occupations which require a pipeline of highly-skilled workers would greatly benefit from a set of nationally recognised work-based-learning qualifications — such as Degree Apprenticeships — combining the practical skills taught in vocational education with the analytical knowledge acquired in higher education.

This type of qualification would operate at the paraprofessional level around the 'mid-tier' of the AQF, embracing full undergraduate qualifications but also opening opportunities for career mobility and further study through lifelong learning, transition-to-work and hybrid work-based qualifications that connect across the vocational and higher education interface.

For new employees, this type of qualification has practical, tangible benefits from the outset: a guaranteed wage and employment contract alongside the longer-term benefit of professional networks and a recognised tertiary qualification.

RMIT, therefore, recommended in its Accord submission

- Expanding Commonwealth support for higher education work-based-learning, while reviewing and aligning trades apprenticeship qualification funding in relevant areas.
- Prioritising investment for workers (scholarships and cadetships) in occupations that are at risk of obsolescence as identified by the National Skills Commission (Jobs and Skills Australia) to test models of work-based learning as a path toward scale.
- Provide nationally consistent and industry-calibrated funding to support workplace learning, aligned with the National Skills Classification.
- Continue and accelerate reform of the AQF consistent with the Noonan Review recommendations.
- Ensure that micro-credentials, rigorously defined, can be integrated where relevant into larger qualification and credit structures.
- Review and extend the employer and apprentice conditions and subsidies currently in place for trade apprenticeships to higher education work-based-learning qualifications and review these incentives to ensure national consistency and adequacy.

The benefits from these innovations supporting mid-tier 'learn-and-earn' qualifications will improve workforce transitions and increase the efficiency and effectiveness in which skills investments can be translated into application. This expanded spectrum of qualifications also provides a more inclusive and accessible pathway for learners with less academic preparation, and for more diverse (often mature) learners who face intractable opportunity-cost barriers to workforce transition. The speed at which workers can enter the workforce or move between industry sectors and address workforce shortages will also be improved significantly providing the very solutions Australia's clean economy future requires.

2.6 RMIT's Accord submission proposals outlined above are informed by our experience as a **dual sector university**. We offer vocational and degree-based education, future-skills courses with industry, online education, international networks, and work-based learning to strongly support the development of full employment and productivity growth. We can also influence the future for the better because we are in the community, we are part of the economy, we are in major international cities, and we help to connect the complex environments that will shape the quality and sustainability of life for future generations.

Dual sector universities are the only public institutions that combine strengths in applied research with education and training offerings across the full spectrum of Australian qualifications for both domestic and international students.

Dual sector universities are in effect the only 'full-service providers' with legislative mandates and obligations to meet community and industry needs across both the vocational and higher education systems.

Each dual sector university has its origins in institutions designed to meet the growing and changing needs of Australian industry, and the increasing skills requirements of the Australian workforce. They are characterised by strong industry partnerships and a strong focus on applied learning and research. This includes their ability to operate horizontally across 'eco-systems' of learning and research-led innovation, to design and deliver programs of learning that can be integrated with a range of different pathways and partnerships.

As a member of the Australian Technologies Network of Universities, (ATN), RMIT is keen to advance the more integrated 'dual sector' and 'work-based learning' approach. This includes

tackling skills and productivity challenges in **whole industry networks** like the clean energy sectors, by working with employers, governments, communities, and others through networked ecosystems, that reflect an alignment of the government's national skills approach with a growing **focus on precincts and industry and innovation clusters**.

3. Precincts and innovation clusters as a mechanism to take advantage of tertiary education sector reform

3.1 Complementing RMIT's Accord proposals around tertiary education system reform, we believe that embedding workforce development and education in place-based hubs or precincts that integrate applied research capability, collaboration with industry and policy-focused partnerships is a strategy that will be responsive to meeting Australia's skills needs over the long term. **The goal is to draw together partners into vibrant innovation and lifelong learning ecosystems**.

For clean energy, the JSA discussion paper correctly notes that researchers focusing on clean energy technologies and educators and trainers delivering courses on renewable power innovations, installation and maintenance are critical to the task of effective workforce development and transition.

JSA cites the International Energy Agency growth forecast which indicates that if job seekers want a new job in the energy sector, it will be a clean energy job. In Australia, JSA notes that 43% of skills in the current energy workforce are non-transferable, will need intense co-design work between education providers and industry.

These needs are reflected in current government policy priorities: the Commonwealth national skills and jobs priority sectors (and those of many states and territories including Victoria) are renewable energy, tackling climate change, digitalisation, growth in the care economy and developing our advanced manufacturing capabilities. Australia's current national science priorities mirror this focus and include energy, environment change and transport as well as resources and advanced manufacturing—all of which are directly or indirectly fundamental to clean energy research and the transitions to a clean energy economy.

The industry partnerships, particularly those developed within a precinct approach, are one key strategy to develop the skills and knowledge required for integration into current VE and HE programs and to develop new and innovative programs such as the work integrated learning programs argued for above.

RMIT has strong capabilities in integrating workforce development and education with applied research, collaborations with industry and policy-focused partnerships that are physically anchored in and responsive to the Australian and international communities where we are located. Our experience, outlined below, provides some of the context within which we developed our Accord submission proposals and highlights **models that can deliver solutions to the clean energy workforce skills gaps and challenges as well as possibilities for the creation of a series of industry and sectoral clusters relating to sustainability and the wider clean economy**.

3.2 RMIT's pursuit of a **Social Innovation Precinct in Melbourne's City North**, brings to life our workforce development and skills reform agenda. One of the four industry clusters for the precinct is **sustainable urban development**, where we aim to grow the sustainability skills

particularly in the building and energy sectors and circular economy. Making the precinct a living lab for smart, sustainable urban planning and climate change adaptation. Leading by example through sustainable design (greening, built form, architecture, emissions, waste management).

3.3 RMIT Europe has a 10-year presence in **Barcelona** and has become an innovative, widely respected player in Barcelona's innovation district, forging new partnerships and approaches to sustainable cities and transformative technologies. Our work with the Barcelona City Council exemplifies our approach to industry partnership and precinct development that is responsive to the desire to transition to a clean economy. The examples discussed below, furthermore, clearly demonstrate that more nationalised and collaborative approaches are needed to match the supply and demand for knowledge and skills and require the development of funding and policy arrangements that strengthen partnerships between universities, governments, and industry**.** Of particular relevance, the **Barcelona Superblock** and the **Barcelona Urban Lab** serve as a test bed for new technologies, the integration of electric mobility charging points into the existing urban landscape, and of creating nature and green corridors for active mobility.

3.2 Barcelona aims to implement a new way of organising its urban environment - **the Barcelona Superblock –** as a model for transforming streets across the city to reclaim part of the public space currently occupied by private vehicles to create areas for citizens. The goal is to gain healthy public spaces —greener, fairer and safer— that promote positive community life, more active lifestyles and favours the local economy.

The city of Barcelona is making a leap in terms of scale and speed, creating a network of green hubs and squares throughout the city where the pedestrian is the protagonist and has priority. Superblock Barcelona will gradually spread throughout the city, creating a large network of green hubs and squares.

The **Barcelona Urban Lab** in its innovation district - also known as 22@ - is used for smart city innovation and to test future ideas for the city. It provides public spaces to test innovative projects for urban futures in a real environment and is accessible to companies that need to test products and services in a real environment. This is a key aim for the City Council - encouraging business innovation and the creation of new products that improve the daily lives of Barcelona's people. Examples of new technologies tested and, in some cases, implemented include

- smart lighting
- Internet of Things devices that monitor rain, humidity and soil moisture in city gardens (using the data, gardeners remotely program the irrigation needed and deliver it via electro-valves; this has resulted in savings of approximately $555,000 per year)
- embedded sensors in asphalt that identify whether a parking bay is occupied and guide drivers to spaces via an app that also supports online payment for parking;
- traffic control sensors to assist with traffic flow;
- smart pneumatic waste bins;
- interactive bus stops powered by solar panels connected to the Wi-Fi network that offer USB charging stations and updates on bus locations;
- implementation and evaluation of different types of bicycle lanes; and,
- implementation of an electronic readout system for gas and water.

The Barcelona Urban Lab also advances the integration of nature and green corridors for active mobility and creates 'climate shelters' to help people deal with increasingly extreme temperatures.

Finally, the Barcelona City Council's **Electric Mobility Strategy** (2018 -2024) promotes the use of electric vehicles in both public and private sectors, and aims to improve recharging facilities and provide backing for the development of the electric mobility industry.

3.4 In Melbourne, **RMIT's City North's social innovation precinct** seeks to advance models of education innovation, lifelong learning, pathway creation, and industry co-design and collaboration. Building on our strengths across applied teaching, research, and industry partnerships, RMIT will enhance links across key institutions, supporting innovation and sustainable growth in four critical domains. This includes alignment with Government's Skills First Policy which is aimed at ensuring high quality training that leads learners to real jobs in sectors primed for major job growth including: medical technology, new energy technology, construction technology and professional services.

3.5 RMIT also has **strong capability to offer the clean energy sector** as well as supporting the transition to the clean economy more broadly. Our holistic approach integrates applied research, workforce education and skills development, policy-focused partnerships and place-based hubs is ideally suited to meeting the workforce needs of Australia's clean energy future.

Our **Integrated Circular Economy, Climate Resilience, and Clean Energy Platform (IC^{3}P)**, supported by the Victorian government's Higher Education State Investment Fund, brings together researchers and experts to develop and deliver professional acumen and enable step-change management to a clean, resilient, and circular economy in Australia.

The **Circular Economy Hub (CEH**) provides a cross- disciplinary, industry-engaged network of around 60 researchers and experts working on cutting edge circular economy innovations across Australia and internationally. The CEH's approach to systemic engagement across research partnerships also supports a capability-building platform across micro-credentials and executive training, as well as informing vocational and higher education outcomes.

The **Climate Resilience Living Lab** has three key streams of work:

- Analysing the policies of Australian universities and international exemplars to build a foundation for understanding what is being sensed and responded to within organisations. This will contribute to the development of University Climate Change Adaptation policies and processes with insights for other large institutions and organisations
- Mapping RMIT's organisational approach to climate resilience responsibilities and actors within the institution.
- Exploring urban responses to climate change, including the adaptation of work and the work of adaptation and these responses complement and contribute to resilient systems.

Collectively, the aim is to help organisations address and adapt to the challenges of climate change within their urban contexts.

The **Clean Energy Living Lab (CELL)** provides core insights, supports sustainability actions, and helps decision making for the transition of electrified energy sources away from conventional centralised fossil fuel-based generation to highly distributed renewable and inverter-based resources. CELL provides:

- a clean energy facility that showcases RMIT's capability in embedded PV generation, battery/hydrogen energy storage, senor networks, data capture, and data analytics;
- skills training to equip the next generation of industry professionals with job-ready skills in analytics, clean generation, and distributed control;
- modelling and simulation of the impact that different operational frameworks have for distributed inverter-based generation and storage technologies.

CELL also provides links to the **Energy@RMIT** platform which brings together the University's capabilities spanning the complete research space required to understand, lead and support the energy transitions that are essential for building a clean energy economy in Victoria and Australia.

A key component of RMIT's Circular Economy ecosystem, which provides a model for future holistic clean energy workforce skills development and related activities, is the **RMIT Activator**, a growth engine for entrepreneurship and innovation. The Activator strives to expose students to 'wicked problems worth solving' through experiential programming and, since 2020, has supported a range of initiatives to drive the circular economy including global accelerator programs, hackathons, pitch events, mentoring programs and industry collaborations.

Together RMIT Activator and CEH have collaborated in the formation of the **Victorian Circular Activator (VCA)**, a physical innovation hub working to activate the state's circular economy. In addition to applied research, RMIT collaborates in the design and delivery of programming targeted at filling circular economy skills gaps. On behalf of Sustainability Victoria and Creative Victoria, for example, RMIT presents the Circular Economy Masterclass series as part of VCA programming. Created to equip design practitioners with the mindset, skills and capabilities to apply design for sustainability methods to their work, this specialised series is open to Victorian-based industrial designers and product development managers across all industries.

3.6 Delivering Australia's decarbonisation plan will require a highly capable workforce, a significant proportion of which will need skills and qualifications at the vocational level. The capabilities that drive decarbonisation are likely to evolve as the transition progresses, furthermore, and this means that the inherent skills and workforce needs are also likely to evolve.

To help meet the changing needs and projected demand in a meaningful way, RMIT is considering the likely implications to skills and occupations, industry and competitor activity within the capabilities and is **identifying the resulting opportunities to develop impactful skills-based responses.**

Many of the occupations impacted will be in areas of traditional trades where there is lower propensity and experience in innovation and change at scale. Given the unprecedented scale, intensity, and complexity of Australia's infrastructure investment over the next five years, there will be immense pressure on public-sector authorities and other actors in the sector mandated to deliver their respective programs of work. The challenges facing the sector include not only skills shortages, but also integrating new technologies and their use into trades, sustainability issues, misalignment between education delivery and population growth corridors, meeting a strong employment growth trajectory for technicians and trades, notably skill level 4 occupations, and attracting and retaining a wider diversity of people into trades.

To help to address the need to reimagine skills for the clean energy workforce, RMIT is investing in a **Trades Innovation Centre** at RMIT's Bundoora campus. The centre will provide fit-for

purpose facilities for the College of Vocational Education for the delivery of contemporary trades, clean economy, and related industry programs in Built Environment, Sustainability, Future Technologies, and Project Management. It will enable RMIT to meet the growing demand for skilled workers and opportunities for growth in the northern corridor of Melbourne.

3.7 RMIT's College of Vocational Education (through its VE Roadmap ALiVE @ RMIT) continues to innovate across multiple industries experiencing high demand as well as those transitioning into more technology dependent or clean energy futures, and it can do this whilst trialling new models of concurrent delivery across VE and HE. These models enable new workers to earn and learn throughout their degree journey, particularly in sectors where roles require minimum qualification standards.

RMIT's **industry aligned approach** allows us to work in partnership with industry sectors and utilise our sector leading practitioners, industry knowledge, and learning and teaching expertise to provide agile responses to changing industry requirements. RMIT develops both long-term strategies and short-term interventions to ensure agility and alignment in our programs and delivery. In partnership with industry partners and government, we support the co-design, development, and piloting of innovative practice-based learning models to enable growth and transformation.

Responding to industry needs is something RMIT's College of VE does well. We provide **tangible opportunities for students to learn** through immersive experiences that help them upskill for current and future jobs and ideally place us to develop innovative clean energy workforce skills training for the future.

Our **Skills in Practice (SKiP)** program and **Higher Apprenticeship and Traineeship Social Services Extension (HATSSEP)**, for example, were developed in partnership with Victorian Government departments and industry to deliver 1000 workers (new and upskilling existing) to the social services sector in Victoria during the project's 3 years. These programs are all about co-design with stakeholders, immersive training for existing workers, upskilling workforce capability and capacity, and applied research to enable the growth and transformation of the social service industry.

The College of VE is also working collaboratively with industry to design a new **Certificate IV in Sustainable Building Design** – designed in a clustered skillset model that enables full qualification delivery to new workers or upskilling and re-skilling through skillsets to existing workforces.

RMIT also is funded through the Commonwealth Government's Advanced Apprenticeship (Industry 4.0) project to deliver an advanced apprenticeship in advanced manufacturing. Our **Associate Degree Digital Technologies (Advanced Manufacturing)** provides industry leading skills to existing employees to build critical capability within their organisations.

RMIT and the College of VE clearly align and support the broader ecosystem of economic and social needs aligned to government priorities**.** We lead best practice in working to shared priorities with government and embedding innovation within the TAFE network. While the **hybrid VE/HE models** required across Australia's education and training sectors require systemic change and new approaches to career entry and learner pathways, we at RMT are well placed to work with priority sectors like clean energy to rapidly scale-up the capacity and capability needed to meet their workforce needs.

RECOMMENDATIONS

1. That JSA support RMIT's recommendations to the Australian Universities Accord Expert Panel.

2. Specifically, to develop coherent policy and funding in 'accord' with State and Territory governments to invest in work-based learning that connects across the vocational and higher education interface where the JSA identifies clean energy skills gaps and relevant occupational demand that is not presently captured in existing VET or HE qualification structures. This could include:
    a. Expanding Commonwealth support for higher education work-based-learning, while reviewing and aligning trades apprenticeship qualification funding in relevant areas
    b. Prioritising investment for workers (scholarships and cadetships) in occupations that are at risk of obsolescence as identified by the National Skills Commission (Jobs and Skills Australia) to test models of work-based learning as a path toward scale,
    c. Provide nationally consistent and industry-calibrated funding to support workplace learning, aligned with the National Skills Classification,
    d. Continue and accelerate reform of the AQF consistent with the Noonan Review recommendations,
    e. Ensure that micro-credentials, rigorously defined, can be integrated where relevant into larger qualification and credit structures,
    f. Review and extend the employer and apprentice conditions and subsidies currently in place for trade apprenticeships to higher education work-based-learning qualifications and review these incentives to ensure national consistency and adequacy.

3. Further, that the Commonwealth develops funding and policy arrangements that move toward a more nationalised and collaborative approach to matching the effective supply and demand for knowledge and skills including an acceleration of the Australian Skills Classification and associated skills platforms and tools, and including funded priority pilots in clean energy. For example:
    a. A move toward longer-term funding agreements between universities and the Commonwealth that reflect specialisation and that support long-term institutional investments and industry partnerships in areas of agreed national priority,
    b. Additional year-to-year flexibility of funding for educational innovation and partnered research activity to reflect specific opportunities, alongside a review of performance metrics to support lifelong learning and collaborative research engagement,
    c. Better-integrated National Partnership Agreement arrangements that include how post-school education is provided to support particular place-based or workforce transitions, including the benefits and potential of 'concurrent' study and integrated workforce pathways arrangements where there is evidence of demand,
    d. Sustained investment and coordination of national and jurisdictional skills and workforce analysis agencies (skills commissions, authorities, and Jobs and Skills Australia) and timely access to student, research and workforce data.

4. That Jobs and Skills Australia, therefore work with the Accord Expert Panel, and teams in the Department of Education and the Department of Employment and Workplace Relations to

draw on the models of educational innovation, co-design and industry partnerships put forward through the Accord, for application to the clean energy workforce.

5. That any government funding attached to new energy apprenticeships be used to support more mid-tier qualification places, PhD scholarships and internships options rather than solely the often-favoured free TAFE or wage subsidy solutions, and that the development of 'partnership-based mechanisms' for co-design and delivery of education in the clean energy sector are equally considered.

6. That budget neutral solutions for clean energy workforce development could include utilising already allocated budget investments such as the National Skills Agreement and the National Reconstruction Fund.

7. That in establishing any further clean energy consultation roundtables, panels or advisory bodies, government considers RMIT as a member.