VICTORIAN TAFE ASSOCIATION

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Dear Victorian Energy Jobs Plan Secretariat,

Please find attached the Victorian TAFE Association submission to the Victorian Energy Jobs Plan. This submission focuses on the workforce and education pathway elements of the consultation paper, highlighting the role of TAFE Institutes in supporting the clean energy transition.

In our submission, we emphasize the importance of TAFE Institutes as trusted partners and the engine room of the clean energy transition. We highlight the unique capabilities of TAFE Institutes, including their industry-aligned training, flexible learning pathways, statewide reach, proven track record and expertise, cost-effective solutions, speed to workforce need, and leading course development. We also provide recommendations on partnering with TAFE Institutes, building capability and capacity, increasing understanding of the energy workforce and future skills needs, supporting the clean energy training workforce, and supporting apprentices and industry.

Additionally, we address specific consultation questions related to the barriers to attracting more students, apprentices, and workers to the energy sector, improving education pathways, adapting to evolving skills needs, attracting and retaining trainers, supporting underrepresented groups, and ensuring local benefits and market confidence.

By partnering with TAFE Institutes and implementing the recommendations outlined in our submission, the Victorian Government can ensure a skilled and diverse workforce that will drive the clean energy transition and contribute to the state's energy goals.

Thank you for considering our submission. We look forward to the opportunity to further contribute to the Victorian Energy Jobs Plan.

Dugald Murray

Executive Director

# VTA Submission to the Victorian Energy Jobs Plan

The Victorian TAFE Association (VTA) welcomes the opportunity to contribute to the Victorian Energy Jobs Plan. This submission focusses primarily on the workforce and education pathway elements of the consultation paper, and the role of TAFE at the heart of the energy transition as a trusted partner of both Government and industry.

**The Victorian TAFE Association**

The VTA is a not-for-profit collective organisation that informs, supports and represents the interests of the Victorian TAFE sector, including Victoria's 12 TAFE Institutes, four dual sector universities and AMES Australia.[1] The VTA proudly champions public vocational education with a focus on sustainability, quality, and outcomes for industry, community and learners.

The VTA advocates for and supports the Victorian Government's commitment to putting TAFE at the centre of the Victorian vocational education and training (VET) sector and welcomes the recognition of the centrality of TAFE in the Victorian Energy Jobs Plan. Alongside the Government's commitment to guarantee TAFE 70 per cent of VET funding each year[2], the VTA also calls on the Government – across all portfolios – to make comparable commitments to using TAFE as their preferred provider for training delivery and skill development.

**Victorian TAFE as the trusted partner and engine room of the clean energy transition**

Victoria's TAFE Institutes and dual sector universities (TAFE Institutes) are already central to meeting the current, evolving and future skills needs of the energy and related sectors. They stand ready to be the engine room for developing the skilled workforce critical to achieving Victoria's ambitious clean energy goals.

Victoria's transition to new energy infrastructure will require significant resources and a decades-long construction phase. While new energy skills are vital to run and maintain this new infrastructure class, in the short to medium-term Victoria's transition will also require roles like construction workers, welders and engineers.

TAFE is uniquely placed to provide an end-to-end solution to government, providing training and skills from the construction phase through to maintenance and operation. While the focus is on new skills and upskilling of existing workers, the construction phase is critical to this transition.

TAFE Institutes are unmatched in their ability to underpin skills development for Victoria's energy jobs with:

- **Industry-aligned training**: TAFE Institutes have a long history of collaborating with industry leaders to develop cutting-edge programs tailored to the specific needs of the energy sector. This ensures graduates possess the in-demand skills for

[1] For the purposes of this submission the term TAFE institute includes standalone TAFEs and TAFE divisions of dual sector universities.

[2] Media release, *Backing TAFE for the Skills Victoria Needs*, https://www.danandrews.com.au/news/backing-tafe-for-the-skills-victoria-needs accessed 28 March 2024.

immediate employment in areas like renewable energy installation, energy efficiency, and clean technology.

- **Flexible learning pathways**: TAFE Institutes understand that the energy sector needs skilled workers at all levels. TAFE Institutes offer a comprehensive suite of programs – from certificates and diplomas to bachelor's degrees and postgraduate options – catering to diverse career aspirations and existing skill sets. This allows for upskilling of existing workers and smooth entry points for new entrants.

- **Statewide reach and scalability**: The extensive and established network of TAFE Institutes provides unmatched geographical reach across Victoria. The TAFE network delivers training from more than 100 campuses across regional, outer metropolitan and metropolitan Victoria. All current renewable energy zones and offshore wind areas are served by TAFE Institutes. Given the reach of TAFE across Victoria, it is highly likely that any future renewable energy zones will be serviced by the TAFE network. Education and training capability and capacity includes TAFE institute infrastructure, people and courseware. This ensures accessible and consistent training for current and future energy workers throughout the state, supporting a balanced and inclusive clean energy transition.

- **Proven track record and expertise**: For decades, Victoria's TAFE Institutes have been at the forefront of vocational education and training. They possess the proven expertise, experienced faculty, and state-of-the-art facilities to deliver high-quality, industry-relevant education and training programs. TAFE and university governance – backed by government, governed by expert boards, academic rigour, values alignment, and rigorously compliant with the regulatory environment makes them the trusted partner for government to deliver on the Victorian Energy Jobs Plan.

- **Cost-effective solutions aligned with Government priorities, commitments and values**: Compared to alternative training providers, TAFE Institutes offer a highly cost-effective, efficient and aligned means of skilling, upskilling and reskilling the workforce. This partnership with the government allows for strategic investment in building a future-proof and sustainable energy workforce.

- **Speed to workforce need**: Many of the new jobs in the energy sector will not require the completion of full qualifications. They will build on and from the skills of the existing workforce with short courses and skill sets associated with new technologies and ways of working. The structure of accredited training in the delivery of vocational education and training sector means TAFE can upskill and reskill workers in shorter and more timely ways to prepare them to adapt existing skills to emerging energy jobs and transition to new roles quickly.

- **Leading course development**: TAFE Institutes are adept at and lead curriculum development in response to changing technologies, standards, and industry needs. Further Government investment would ensure TAFE Institutes – as the sovereign education and training provider central to the VET system – remain at the forefront driving and partnering with industry to meet Victoria’s goals and commitments.

# Recommendations

**Partner with TAFE Institutes**

1. Put TAFE as a trusted partner at the heart of Victoria's Energy Jobs Plan and commit to energy jobs training delivery at Victorian TAFE institutes with funding that scales up with the growth in jobs that is required. Include the VTA and members in any further consultation on the Energy Jobs Plan and related initiatives.

2. Share data with TAFE Institutes on projected growth to priority energy jobs/professions to support development of appropriate courses or scaling-up of training delivery.

3. Partner with the VTA and TAFE institutes to address the VET perception challenge to attract more students to TAFE energy related courses.

**Build capability and capacity**

4. Reflect the Government's commitment to guarantee TAFE 70 per cent of VET funding each year[3] – with comparable commitments across all portfolios to using TAFE as their preferred provider for training delivery and skill development.

5. Recognise the value of, and invest to build, Victoria's sovereign education and training capability and capacity at TAFE Institutes - including the teaching workforce, and physical and digital infrastructure.

6. Support TAFE Institutes in partnership with industry and employers to expose more secondary school students to related careers and training and to address VET perceptions (*supported by soon to be published research commissioned by the VTA*).

7. In collaboration with TAFEs identify good practice in addressing apprenticeship completion rates and develop further strategies, policies and arrangements to wrap around apprentices and employers to increase apprenticeship completion rates.

**Increase understanding of the energy workforce and future skills needs**

8. Build data on the current and future energy workforce, and their skills and training needs, noting that TAFE institutes hold deep partnerships with industry and are at the forefront of innovating and responding to changing industry needs.

9. Encourage industry to take responsibility for sizing the energy workforce, identifying energy job roles, the workforce opportunities and the geography of the energy industry; and develop employer capacity to work with TAFEs to attract more students, apprentices and workers to the energy sector by using this critical information.

10. Support more TAFE institutes to offer more courses aimed at addressing immediate and future skills needs that are broad spectrum, to ensure adaptable workers and tailored to new technologies, to ensure workers are job ready.

[3] Media release, *Backing TAFE for the Skills Victoria Needs*, https://www.danandrews.com.au/news/backing-tafe-for-the-skills-victoria-needs accessed 28 March 2024.

11. Create priority pathways from other trades (particularly those in decline) into the renewable energy workforce qualifications.

**Support the clean energy training workforce**

12. Include a stream of work on the training workforce that will be required to sustain the energy workforce itself, as part of the Energy Jobs Plan.

13. Streamline and fast-track curriculum development for new energy qualifications for accreditation.

14. Create more pathways for skilled energy workers to transition to the VET sector as teachers. Develop a pool of specialised teachers across the state that could be draw on and deployed across the TAFE sector.

15. Support TAFEs to address skill shortages of specialised teachers (e.g. development of an industry trade instructor role or specialist industry assessors who are licenced).

16. Consider pathway-specific professional development plans for upskilling the TAFE workforce.

**Support for apprentices and industry**

17. Develop apprentice support services (including specific services targeted at SMEs) to provide guidance and mentoring for a successful apprentice experience.

18. Provide support to employers to work with employees from diverse cohorts (e.g. unconscious bias training).

19. Consider appropriate supports for apprentices in priority regional areas (e.g. relocation and travel expenses, and peer support).

20. Investment in facilities and localised training targeted to the needs of the job opportunities in specific regions.

21. Establish centres of excellence for training, based around themes (e.g. hydrogen, wind)

**Grow student pipelines and consider non-training barriers and supports**

22. Support TAFE institutes in partnership with industry and employers to expose more secondary school students to related careers and training and to address VET perceptions (*supported by soon to be published research commissioned by the VTA*). Engage students early (e.g. from year 7 onwards) to provide information relating to the clean energy jobs and training options.

23. Prioritise efforts to build the student pipeline into energy jobs, particularly for regional areas and for underrepresented cohorts. Proactively address VET perceptions to ensure more school leavers recognise the true value of VET training in achieving careers in these occupations. Work closely with industry to ensure school leavers are highly aware of the career opportunities in the energy sector and assist TAFEs to anticipate and respond to potential increased demand.

24. Build on TAFE institute leadership in overcoming barriers to education and training for women, First Nations peoples, and underrepresented groups by increasing support to

TAFEs to prioritise the creation of pathways into energy related jobs and careers for these cohorts of people.

25. Address non-training related barriers and needs. For example, increasing student and worker accommodation and housing, access to travel and transport facilities, digital infrastructure, and the availability of health and well-being services.

26. Work with clean energy businesses to promote sustainable energy jobs.

27. Create a data collection mechanism for energy and energy related roles and courses and the student cohorts by gender, and other underrepresented groups.

28. Support TAFE institutes to partner with industry on initiatives that address diversity and participation including the development of gender inclusive learning and assessment resources, childcare support and funding of evening weekend program delivery to enable learners with carer commitments to undertake pre-apprentice and pathway programs.

# Responses to specific consultation questions

## Workforce

Questions from the consultation paper:

*What are the barriers to attracting more students, apprentices, and workers to the energy sector? How can the energy sector use the transition to renewable energy to increase awareness of energy workforce opportunities?*

*How can the energy sector better attract and retain underrepresented and diverse workers, particularly in leadership, governance, trade, technical and regionally based roles?*

**Demystify energy jobs**

A major barrier to attracting more students, apprentices and workers to the energy sector is the lack of clear information on the current and emerging opportunities in the energy workforce. The energy industry will need to overcome this barrier by making these jobs 'thinkable' for students, apprentices and workers to grow the appropriate workforce and investment environment to meet energy transition targets.

This is on top of the well documented general barriers to attracting more students to VET – including the perception and status of VET, the over-emphasis on higher education pathways, as well as the general barriers to attracting students to STEM disciplines.[4]

**Highlight the size of the opportunity to enter the energy workforce**

[4] See for instance, Inquiry into the Perceptions and Status of Vocational Education and Training (2024), *Shared vision, equal pathways*, https://www.aph.gov.au/Parliamentary_Business/Committees/House/Employment_Education_and_Training/VETInquiry/Final_Report (accessed 8 April 2024), and Skilling Australia & McCrindle (2017), *Perceptions are not Reality*, https://mccrindle.com.au/app/uploads/work/Skilling-Australia-Vocation-Education-Report.pdf (accessed 8 April 2024).

One way to demystify energy jobs, and attract more students, apprentices and workers, is to make the size of this 'opportunity' clearer – in general, and for specific roles. This could include by developing and releasing data and information on:

- The current overall size of the workforce and specific roles within the workforce
- Modelling for the future required workforce and specific roles
- Highlighting particular growth areas, including areas where skills will be particularly valuable in future (i.e. roles where many are required and few are currently trained, or geographic areas that may have a specific need)
- Relevant geographic footprints of the industry and workforce.

To attract and retain a diverse energy workforce all parties will need to highlight existing and emerging/growing jobs and roles and make these tangible, while promoting them in targeted and culturally appropriate ways to diverse cohorts. Strategies such as industry offered scholarships and cadetships for underrepresented groups, and employers engaging more with Disability Employment Services and peak bodies could be used to good effect.

Industry will also need to showcase their success in recruiting and supporting diverse workers, as well as the rewards of working in the energy sector. This type of information is also invaluable to TAFEs in developing their course offerings and promoting energy-based jobs and roles.

TAFE Institutes are offering relevant courses in solar, wind, electric vehicles, renewable hydrogen, battery storage, electrical distribution and transmission and other technologies. Women and other cohorts are represented in these areas, but there is a lack of granular data to identify how well they are represented and in what fields.

**Clarify training/career pathways and showcase emerging roles**

Information on the size of this opportunity should be paired with information that sets out the links between energy jobs and specific careers/trades, and links between training and transition pathways into energy jobs, as well as information on how these roles are welcoming to diverse applicants. Combined, these efforts could help demystify the industry while also highlighting the size of the potential opportunity to consider a pathway in the energy sector.

There are few apprenticeships specifically in the renewable energy sector – most apprentices are training in related fields such as electrotechnology, engineering, civil construction, maritime engineering – and then being recruited from these roles. Large renewable companies or their subcontractors also do not appear to be employing many trainees in non-technical roles either such as business administration, accounting, conservation and land management or OH&S roles.

There is also the uncertainty around the long-term work opportunities in the sector given its current project-based nature.

**Map pathways against TAFE offerings and invest in growing training**

TAFE Institutes are central to delivering the training required for the energy sector and related occupations. The role of these institutes in supporting industry can be bolstered with government coordination. The Victorian Skills Authority and Office of TAFE Coordination and Delivery should target the growth (or anticipated growth) in required qualifications, and their

related training pathways, against the current offerings of TAFE Institutes. This could identify gaps in training delivery for specific qualifications (or at the required scale of delivery) which should be considered for specific funding to grow this delivery. Getting the Energy Jobs Plan right will require investment to grow and diversify training provision in line with these skills requirements.

A current and future training footprint for the energy sector and related occupations, cross matched to TAFE course delivery, could also create the basis for a way for the energy industry and potential students to easily see how training requirements for specific energy roles map against offerings from TAFE Institutes.

**Addressing the perception of TAFE could attract more students to energy jobs**

The VTA has commissioned research (soon to be released) on the 'perception challenge' of TAFE – which impacts on enrolments. The value and benefit of TAFE is high, and TAFE underpins many energy jobs, but there are enduring negative perceptions around the VET offering and experience. Addressing the perception challenge will be key to attracting more students to TAFE and into energy jobs.

The 'values connection' to work, including in relation to sustainability, is also increasingly important. Greater promotion of energy jobs, and training pathways – by both TAFE and industry – should focus on this connection to value, purpose and sustainability.

Similar findings were also highlighted in a report by Skilling Australia & McCrindle[5] and the Federal Parliamentary Inquiry into the Perceptions and Status of Vocational Education and Training final report: *Shared vision, equal pathways*.[6]

## Related recommendations:

- Share data with TAFE Institutes on projected growth to priority energy jobs/professions to support development of appropriate courses or scaling-up of training delivery.
- Partner with the VTA and TAFE institutes to address the VET perception challenge to attract more students to TAFE energy related courses.
- Work with clean energy businesses to promote sustainable energy jobs.
- Create a data collection mechanism for energy and energy related roles and courses and the student cohorts by gender, and other underrepresented groups.
- Support TAFE Institutes to partner with industry on initiatives that address diversity and participation including the development of gender inclusive learning and assessment resources, childcare support and funding of evening weekend program delivery to enable learners with carer commitments to undertake pre-apprentice and pathway programs.

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[5] Skilling Australia & McCrindle (2017), *Perceptions are not Reality*, https://mccrindle.com.au/app/uploads/work/Skilling-Australia-Vocation-Education-Report.pdf (accessed 8 April 2024).

[6] Inquiry into the Perceptions and Status of Vocational Education and Training (2024), *Shared vision, equal pathways*, https://www.aph.gov.au/Parliamentary_Business/Committees/House/Employment_Education_and_Training/VETInquiry/Final_Report (accessed 8 April 2024).

- Create priority pathways from other trades (particularly those in decline) into the renewable energy workforce qualifications.

## Education pathways

Questions from the consultation paper:

*How can education pathways and providers further support students to successfully complete their qualifications?*

**Employers play a key role in TAFE completion rates**

Completion rates at TAFE Institutes are comparable to other post-compulsory education and training providers, including universities.[7] As for many education and training providers, qualification completion rates and post-qualification employment outcomes remain a challenge and a focus of TAFE Institutes.

Completion rates are influenced by many factors that relate differently to cohorts and individual learners. For example, completion rates for apprentices and trainees are generally higher than the average VET cohort who may, however, enrol in qualifications for which they only require a certain number of units and had no intention of completing the full qualification.

Research shows that completion rates for apprentices and trainees are heavily influenced by the employment experience, poor wages and conditions, unrealistic expectations, the prevailing employment market, and the stage of the apprenticeship. Typical reasons for non-completion are related to the employment experience rather than the off-the-job training provided by TAFEs.

For example, VTA member feedback suggests that completion rates for Certificate III in Electrotechnology and Certificate III Electrical Supply Industry are high and supported by active engagement between the TAFE and the apprentice employer, apprentices holding a year 12 level qualification, specific apprentice-focussed support services, and completion of a relevant pre-apprenticeship program.

The role of the employer cannot be overstated, and the Energy Jobs Plan should include consideration of the support employers can provide for students, apprentices and workers throughout the education pathway – in the lead up to employment, and once they are employed.

**Supporting employers can increase retention and completion**

While TAFEs are primarily concerned with support to the students, they often have a role as the intermediaries between the apprentice/trainee (student) and the employer. Alongside the support services offered to students such as mentoring and guidance where workplace issues arise TAFEs can and do offer support to employers to build their capacity to mentor

[7] See for instance, Completion Rates of Higher Education Students - Cohort Analysis, 2005-2022, https://www.education.gov.au/higher-education-statistics/resources/completion-rates-higher-education-students-cohort-analysis-20052022 (accessed 28 March 2024), and VET qualification completion rates 2022, https://www.ncver.edu.au/research-and-statistics/publications/all-publications/vet-qualification-completion-rates-2022 (accessed 28 March 2024).

and manage their apprentices/trainees. This contributes to increased retention and completion rates and improves the experience for both groups.

More could be done to support TAFEs in this important aspect of apprenticeship completion including through their Jobs and Skills Centres supporting small and less experienced employers with their recruitment practices and support for apprentices.

One example of a more comprehensive approach to apprentice completion is the Apprentice Central initiative at Holmesglen Institute. Here all the support services for apprentices are brought under 'one roof' providing a supportive environment for apprentices and their employers to ensure a rewarding experience that results in increased completion rates.

To support improved student completion across the sector, further work could be done to support employers to work with employees from diverse cohorts. This could include unconscious bias training for employers and their existing workforce, and actions to address unconscious bias within their systems.

**Peer mentor networks could further support retention and completion**

The experience of the Women Apprentices in Victorian Electrical (WAVE) program highlights the opportunity for peer mentor networks to support students to complete their apprenticeships. Rather than appointing mentors to each participant for the duration of their apprenticeship, the focus was on building a mentoring/peer support network. As the apprentices proceeded through their apprenticeship, they become the mentors for their peers. This was identified as an important factor for the participants in completing their program.

## Related recommendations:

- Create linkages with universities to include VET options as part of the curriculum e.g. Engineering to include VET components.
- Develop apprentice support services (including specific services targeted at SMEs) to provide guidance and mentoring for a successful apprentice experience.
- Support TAFE institutes in partnership with industry and employers to expose more secondary school students to related careers and training and to address VET perceptions (*supported by soon to be published research commissioned by the VTA*). Engage students early (e.g. from year 7 onwards) to provide information relating to the clean energy jobs and training options.
- Provide support to employers to work with employees from diverse cohorts (e.g. unconscious bias training).
- Consider appropriate supports for apprentices in priority regional areas (e.g. relocation and travel expenses, and peer support).

Questions from the consultation paper:

*How can education and training offerings adapt flexibly to the evolving skills needs of the energy sector? Could this include, or do you have any examples, of continuous learning and skill development opportunities?*

**TAFE can adapt more easily to evolving skills needs through established partnerships**

Victoria's TAFE Institutes already work in close partnerships with industry and local business to design and deliver training programs that meet both national standards and local requirements.

Victoria's TAFE network provides an example of the benefit of working in a coordinated partnership approach. TAFE Institutes actively share best practice curriculum and delivery resulting in an agile and high-quality delivery capacity, and efficiencies achieved through reduced duplication of work. The VTA facilitates wide ranging networks and relationships across TAFE Institutes, including on curriculum and industry engagement, leading to a network that is thriving and collaborative.

**TAFE Institutes work closely with the Victorian Skills Authority to create a system that is closely aligned and responsive to the evolving needs of industry**

More opportunities could be made available through the consideration of accredited bridging courses for qualified tradespeople wanting to transfer across into the energy sector; and more shorter upskilling courses (including micro credentials) in specific energy sector skills could be developed and delivered to target transitioning workers. Examples such as the AUR/automotive training package skill sets for battery electric vehicles and the plumbing and building construction post-trade skill sets are relevant here.

The Gordon's *Clean Economy Skills for the Future Workforce – Training Needs Analysis for the Advanced manufacturing Industry* paper[8] observed, in relation to advanced manufacturing, that transitioning to a clean economy demands a skilled and adaptable workforce equipped with the knowledge and expertise to identify and implement changes to current practices. This requires continual adaptation skills and change management. The report identified the following strategies for achieving this continual adaptation: micro credentials and short courses; industry-relevant specialised courses, best practice case studies from industry for use within curriculum; common clean economy literacy; pooled graduate programs; and career selection support for graduates.

Clean energy technologies are changing quickly. To maintain the industry currency of the TAFE workforce, industry could take a more proactive role in engaging with TAFE Institutes to share industry knowledge and access to state-of-the-art equipment for teacher continued professional development.

## Related recommendations:

- Streamline and fast-track curriculum development for new energy qualifications for accreditation.
- Create more pathways for skilled energy workers to transition to the VET sector as teachers. Develop a pool of specialised teachers across the state that could be draw on and deployed across the TAFE sector.
- Support TAFEs to address skill shortages of specialised teachers (e.g. development of an industry trade instructor role or specialist industry assessors who are licenced).

[8] https://www.thegordon.edu.au/sitedocs/campaigns/report-advanced-manufacturing-training.aspx (accessed 8 April 2024).

- Consider pathway-specific professional development plans for upskilling the TAFE workforce.

Questions from the consultation paper:

*How can the education and training system attract more trainers to support energy education pathways?*

*How can gaining experience as a trainer be appropriately recognised by employers and contribute to a rich and fulfilling energy sector career?*

**TAFEs are working hard to attract and retain a high calibre teaching workforce**

Like many sectors, VET faces workforce challenges.

Given the central role that TAFEs will play in supporting the clean energy workforce, including through the SEC Centre of Training Excellence and other clean energy initiatives, TAFEs and the Government are focused on attracting and retaining a high calibre teaching workforce.

For example, TAFEs provided incentives to new industry professionals to commence a vocation as a TAFE teacher through the Victorian Government funded *TAFE Teacher Incentive Program* (TTIP). The program has been successful at raising awareness of the TAFE teaching opportunity including recruitment, financial incentives, teacher training and mentoring and has brought new teachers to the network.

The core qualification required to be a trainer (the Certificate IV in Training and Assessment) has also been on the Free TAFE list since 2022.

**The Victorian VET Workforce Strategy**

The VTA and members are working closely with the Victorian Skills Authority to develop a Victorian VET Workforce Strategy, examining workforce issues relating to all roles with a direct impact on VET students' teaching and learning experiences.

The VTA and members have also had strong input to the Commonwealth Government along with other states and territories to progress the *VET Workforce Blueprint* which aims to support and grow a capable, sustainable VET workforce now and into the future by focusing on attraction, retention, development and leadership.

**Other workforce measures**

TAFE Institutes are exploring cooperative approaches to attract and retain skilled teachers, most recently through workshop discussions to inform future work. Key themes have included collectively promoting the rewards of TAFE teaching and working closely and directly with industry to explore ways to support parallel teaching and working. Consideration has also been given to ideas such as financial incentives for employers whose staff are delivering accredited training at a TAFE institute (e.g. Payroll Tax rebates).

Changes to the revised Standards for RTOs (which commence from March 2024), present an opportunity. The changes enable people who hold an education degree (that enables registration as a secondary teacher) to be engaged as trainers and/or assessors without having to do the full Certificate IV or Diploma in TAE (there is still the requirement to attain the Assessor skill set or equivalent). For those working towards a Certificate IV or Diploma in TAE it will now be even easier to deliver training under supervision (before completing the

qualification), attracting more people into the workforce and enabling broader use of industry experts.

The Teacher Industry immersion program at The Gordon provides an example of one approach. The advanced manufacturing sector and industry groups will guide the design of a teacher immersion program. The program will upskill teachers to ensure they are teaching clean economy skills and concepts for the future needs of the advanced manufacturing sector.

Chisholm Institute is currently running the Quality TAFE Teacher program, that has seen considerable success in attracting industry professionals to join and do their TAE while also gaining practical classroom experience.[9]

The Energy Jobs Plan should include a stream of work on the training workforce required to sustain the energy workforce. A state-wide training approach would build a pipeline of clean energy trade teachers. This could consider whether incentives are required for industry to release staff for teaching purposes (e.g. one day per week to shadow a trainer in a class).

Holmesglen Institute has commenced a program with the Electrical Supply Industry (ESI) to have qualified trainers from the ESI contractors placed at the Drummond Street campus to provide training and assessment services. The trainers are employed by their company and Holmesglen pays the employer a day rate for the provision of training and assessment to apprentices undertaking ESI programs (incorporating renewable energy components). There are also secondment agreements in place between Zinfra/CitiPower/Powercor with Holmesglen for qualified industry workers assisting in apprentice training delivery.

## Related recommendations:

- Include a stream of work on the training workforce that will be required to sustain the energy workforce itself, as part of the Energy Jobs Plan.

Questions from the consultation paper:

*What are the key barriers for transitioning workers, and underrepresented groups, including First Peoples, people with disabilities and women, accessing training pathways in the energy sector?*

As previously indicated a major barrier to attracting more students to the energy sector in general is a lack of good information on the energy workforce opportunities. In this respect transitioning workers and underrepresented groups are no different.

Key to attracting and retaining a diverse energy workforce will be the importance of the energy industry to making clear the types of jobs and roles emerging and available, to promote them in targeted and culturally appropriate way to diverse cohorts, to demonstrate the rewards of working in the energy sector, and their success in recruiting diverse workers. This type of information is also invaluable to TAFEs in developing their course offerings and promoting energy-based jobs and roles.

Chisholm Institute has run two programs designed to attract priority job seekers into roles in both engineering and Early Childhood Care. Details on these projects can be found at: https://www.chisholm.edu.au/free-tafe-for-priority-courses/engineering-project and for ECEC

[9] See https://www.chisholm.edu.au/about-us/careers-at-chisholm/become-a-tafe-teacher.

here: https://www.chisholm.edu.au/Industry/Customised-training-solutions/Jobs-Victoria-Early-Childhood-educators-traineeship-case-study

The WAVE program delivered in partnership by Holmesglen and the Electrical Trades Union is an example of getting people from underrepresented groups into the clean energy sector.

These projects have been successful because they provide a full service from jobseeker attraction to training placement and post-employment mentorship. These cohorts require the comprehensive support that TAFE is uniquely able to provide.

*Are you aware of any successful partnerships between the energy industry and the education system to train energy sector workers?*

*How can this be applied to other training initiatives, including the forthcoming Wind Worker Training Centre and Hydrogen Worker Training Centre?*

TAFE Institutes are adept at and accountable for building industry partnerships, for instance:

- **Bendigo Kangan Institute** supported the Australian Manufacturing Workers' Union's (AMWU) Victorian branch in its transition to zero emission buses by developing and delivering related courses for technical and non-technical staff.

- **Bendigo Kangan Institute** developed an upskilling course for the regional Heating, Ventilation, Air Conditioning and Refrigeration (HVACR) workforce so its members are trained in the transition from global warming potential (GWP) gases to greenhouse-friendly refrigerants and technologies. This project was delivered in a partnership between TAFEs (Bendigo Kangan Institute) and industry.

- **Southwest TAFE** and Holmesglen Institute are working with industry partners to provide fuel cell heavy vehicle training programs. **Southwest TAFE** has also partnered with Middy's and Varta Battery's to deliver solar battery system installation to electricians.

- **Chisholm Institute** is collaborating with the Victorian Automotive Chamber of Commerce (VACC) to provide basic EV training to its industry members. Chisholm Institute and the VACC have a long relationship, including delivering apprenticeship training in multiple disciplines in the automotive industry.

- **Federation TAFE** has signed an exclusive agreement with the BZEE Network in Germany to deliver the globally-recognised post-trade Turbine Technician Training Course. This BZEE certification is globally regarded as a key qualification in enabling employment in the wind energy industry.

- **Federation TAFE**, in collaboration with industry partners, has also developed several wind energy initiatives, with the aim to build a skilled renewable-energy workforce in Western Victoria. They are working with Arena and VESTA's to develop a GWO accredited facility and new blade technicians course.

- **Holmesglen Institute** has incorporated its renewable energy supply infrastructure into the training of electricians to undertake the installation and maintenance of Electric Vehicle charging stations at its Moorabbin campus.

- **Holmesglen Institute** is currently in partnership with the ETU called Futuretech, which is a centre that trains electrical workers in renewable energy.

- **Holmesglen Institute** is also the only TAFE Institute in Victoria training apprentices in the Electrical Supply Industry, specifically Certificates III in ESI (Power Systems – Distribution Overhead, Distribution Underground, and Power Systems – Rail Traction). At their purpose-built ESI training yard, Homesglen trains ESI trades people in the skills required to build, maintain, and upgrade the electrical distribution networks that power Victoria. This is supported by the Electrical Linesworker Apprentice Committee (ELAC) to ensure that training provided is meets safety, licencing and operational requirements.

- **South West TAFE**, Warrnambool Bus Lines, AC Transit, Deakin University and Federation University are working in collaboration to develop and deliver a new set of accredited units critical for hydrogen use and fuel-cell electric buses.

- **SuniTAFE** forms part of the of the Mallee Hydrogen Technology Cluster in partnership with the Victorian Government, University of Melbourne, Latrobe University and industry collaborators Dried Fruits Australia, HyperSens, Murray Darling Basin Authority and One Basin CRC. Directed by the Mallee Regional Innovation Centre (MRIC), the cluster aims to accelerate the development of a hydrogen ecosystem within 3-5 years, concentrating on fostering innovation and research, enhancing skills and capabilities, and attracting investment to advance the hydrogen sector forward.

- **TAFE Gippsland** and **Federation University** set up the GRSN to foster connection and collaboration between government, educators and employers in sectors essential to the clean economy.

- **TAFE Gippsland,** in partnership with **Federation University** and industry, developed a framework with transitional pathways that enables the traditional energy workforce (e.g. coal-fired) to shift towards clean energy (e.g. offshore wind).

- **TAFE Gippsland** in partnership with Opal Australian Paper and Federation University co-designed the curriculum in Bio Manufacturing and established the Bio Manufacturing lab at the Yallourn campus.

- **The Gordon**: Clean Economy Team Challenge 2024 is a free program designed to support the growth of a Clean Economy in the Geelong region. This initiative enables students to gain valuable experience with like-minded peers while increasing their employability skills.

- There are also many examples across the TAFE network of well-established industry advisory groups focused on ensuring that training provided meets the current and future needs of industry.

In addition, existing TAFE institute collaborations and partnerships with universities and industries are already developing solutions for the wind (both onshore and offshore) and hydrogen sectors. These existing consortium approaches, existing relationships, and work already achieved by these arrangements, provides a strong platform from which TAFE Institutes can take a leadership role in the forthcoming wind worker and hydrogen work training centres, and reducing the need for these training centres to start from scratch. By leveraging the existing TAFE Network partnerships and activities, the investments to be made in the forthcoming worker centres go further.

More detail can be found in *Training for the Clean Economy - The Victorian TAFE Network Prospectus 2024*.

## Local benefits

Questions from the consultation paper:

*What can be done to ensure that local communities benefit from energy workforce opportunities in their region, including affordable local education and training, and job creation?*

Experience from TAFE with some regional projects suggests that benefits and opportunities from energy workforce opportunities in their regions are not always evident, and that there can be unintended impacts on local communities. Some regional wind farm companies have employed local people for the construction phase and offer scholarships and other financial benefits to local communities and councils. However, new energy job creation is often in competition with the existing land, food and fibre sectors, leaving those industries with increased workforce capability difficulties. Other sectors can also be impacted by workers transitioning into the energy sector, specifically the building and construction trades.

Energy companies should consider how they can directly employ more apprentices and trainees, rather than drawing them from other sectors. More incentives and scholarships at the school and VET level could assist with this.

Regional training hubs should deliver training that addresses industry needs from end-to-end – generation to distribution/maintenance. These hubs could also be utilised for career development activities, engaging local communities with original equipment suppliers and providing opportunities for applied research activities that engage the local community.

### Related recommendations:

- Investment in facilities and localised training targeted to the needs of the job opportunities in specific regions.

Questions from the consultation paper:

*How can pathways be improved to support regional education and secure employment, while also encouraging workers to stay in their home region?*

*What role/s can training providers, businesses, government, and others play, including entities like the upcoming Wind Worker Training Centre and Hydrogen Worker Training Centre?*

Pathways to support regional education and secure employment could be improved through a range of actions such as:

- More and better careers and training pathways information being provided for secondary school students and foundational/pre-vocational VET students.
- Promoting and encouraging the uptake of renewable energy VETDSS programs e.g. Certificate II in renewable energy, Certificate II in Electrotechnology (Career Start) in secondary schools.
- Additional support provided for female apprentices and those from disadvantage or marginalised groups (including mentoring, financial relief, travel costs, greater flexibility, modified assessments).

- Greater certainty of the types of short-term and ongoing roles available at the local level.

Through the development of Wodonga TAFE's Logical Innovation Precinct and the delivery of training and skills in Future Fuels, Advanced Manufacturing and Circular economy, Wodonga TAFE are developing strong partnerships with Vocational (NSW TAFE) & metro based Higher Educators to deliver programs that strengthen local manufacturing, engineering and heavy vehicle capabilities, while also providing a local facility for Higher Degree by Research students to complete their doctoral studies close to home.

These partnerships seek to bridge the gap between the VET and HE offerings by ensuring that articulation, reverse articulation and short format learning flow into each other in a natural & engaging way. This flow of learning is designed to be equally attractive to local secondary school students and help them recognize the advantages and value of pursuing their qualifications closer to home. Providing this access locally is another way the TAFE seeks to preserve the retention of skills, jobs and businesses within the Hume Region.

## Related recommendations:

- Establish centres of excellence for training, based around themes (e.g. hydrogen, wind).

*How can students, apprentices and workers be attracted to move for work on energy projects, including to regional locations?*

While the financial, environmental and social benefits of moving to regional areas in general could be better articulated and promoted to attract families and workers to move for work on energy projects, there are barriers to making this a reality.

Housing availability and affordability are critical challenges in regional Victoria and solutions to this are needed for future energy projects. Short term housing options such as worker 'villages' should be looked at for the temporary and short-term specialist workforces that are involved in the construction and commissioning stages; but longer-term solutions are needed for those in operational roles, for those undertaking training and for student accommodation.

# Market confidence

Questions from the consultation paper:

*What policy certainty could government provide to promote investment in the energy workforce?*

Government policy is a key driver of both technological disruption (i.e. changes to appliance standards require manufacturers to innovate or lose market) and changes to skills needs. A predictable and long-term policy environment centred around a roadmap is key to industry responsiveness. Similarly, long-term policy, funding and regulatory predictability creates an environment where TAFE Institutes can partner with industry to meet changing skills needs.

For TAFE Institutes, this includes:

- A more stable funding environment with longer (e.g. 3 year) funding cycles to enable better longer-term planning in line with government clean energy objectives, supported by increased flexibility within the funding envelope that allows TAFE to

anticipate and respond to potential increased demand in clean energy training delivery.

- Policy that enables development of physical and digital training infrastructure and living amenities for students and workers.
- Funding to support the services to priority cohorts to take up energy jobs.
- Whole of government policies that ensure TAFE is central to energy skills development.
- Innovation policy to support TAFE Institutes in applied research activity that drives employment growth and promotes investment in the energy workforce.
- Growth funding for investment in innovation and applied research capability to underpin the development of the energy workforce.

Wodonga TAFE's Logical Innovation Precinct for example, will support the development of vocational skills, industry access to facilities, opportunities for applied research and the testing requirements of emerging technologies (including energy) that will require careful scheduling, attractive fee models, flexible facility design and collaborative use of the spaces while also protecting a client's intellectual property where needed.

Questions from the consultation paper:

*How would regular energy skills and workforce data and mapping enhance investment confidence? What specific data would be most useful?*

We consider there are two priority data-related activities to support growth in the energy workforce:

1. collect, model and release data on the current and future (projected or required) energy workforce including specific roles, that highlights growth roles that will be in particularly high demand, or will grow significantly from a lower base; and
2. creating a data collection mechanism for energy and energy related roles and qualification pathways, linked to courses, that assist TAFE institutes to effectively partner with local industry to meet local workforce needs.

Useful data to support these activities includes:

- The size of the energy workforce and sectors allied to energy
- Specific roles related to training and careers in energy
- The location of the energy workforce
- The location of clean energy initiatives
- Actual numbers of qualified people in the industry and the predicted numbers in the medium to long term
- Level of qualifications and type of qualifications for workers in the energy industry

- Data identifying the diversity of the workforce, and the numbers of people by different cohorts in specific jobs.

- Salary expectation/trajectory for specific in-demand roles.

- International Market analysis and trends in workforce capability and new and emerging Energy markets to enable a more proactive readiness to adapt and adopt.

Questions from the consultation paper:

*How can Victoria position itself to compete nationally and internationally, as well as with other industries, for energy sector skills and workforce?*

With strong and flexible TAFE providers, Victoria can position itself to compete nationally and internationally, by:

- showcasing contemporary training delivery supported through strong industry partnerships

- developing streamlined pathways for interstate and international workers to gain Victorian accreditation

- Streamlining national recognition of overseas qualitied workers

- Creating a vibrant TAFE energy network

- Conducting research on national and international best practice.

Questions from the consultation paper:

*How can communication be improved between underrepresented groups and employers to ensure inclusive and equitable access to employment opportunities, including to improve jobs and skills matching?*

There needs to be further promotion of success stories of people from under-represented groups completing apprenticeships and going onto become leaders in their field; and the encouragement of underrepresented groups already in traditional programs and pathways to pivot to the clean energy sector.

One example is Wodonga TAFE's Iron Women Driver Trainer program that provides vocational training and heavy vehicle licensing to females of all ages, backgrounds and interests. Wodonga TAFE partnered with Volvo to give candidates the opportunity to complete the 3-module course, where upon completion, they received their Certificate III in Driving Operations. Throughout the course, time is spent in the classroom followed by on road heavy vehicle training at Wodonga TAFE's Barnawartha Logic Campus for training in a Volvo FL Electric rigid and a counterweighted Volvo FH 500 I-Save prime mover. This provided both skills in Heavy Rigid driving as well as skills and exposure to the Heavy Vehicle – EV sector.

# Conclusion

On behalf of members, the VTA has highlighted the crucial role of TAFE Institutes in supporting the Victorian Energy Jobs Plan – when placed as a trusted partner at the centre of this plan alongside industry, communities and workers.

The Energy Jobs Plan needs to consider the workforce required to support the transition, as well as the training workforce that will be required to continuously train and develop it. This stream of work is best supported by Victoria's established network of TAFE Institutes – who already have the industry partnerships and regional footprints required to deliver this service.

TAFE Institutes have a proven track record of providing industry-aligned training, flexible learning pathways, and statewide reach, making them the logical and trusted partner for government and industry.

To attract and retain a diverse workforce, the Energy Jobs Plan will need to address both retention and attraction of a diverse workforce – starting in schools and building a positive perception of TAFE as well as the opportunities available with a career in a new energy job. Apprentices will also need support, and while TAFEs can provide crucial services to support retention and completion, the support provided by employers will be critical in maintaining a pipeline of students and supporting students from diverse backgrounds.

The Government's clean energy targets are ambitious and important. If we get the training and workforce to support this transition wrong, we put energy targets at risk, could see increased energy poverty, and increased workforce inequality with fewer First Nations people and women in Victoria participating.

By partnering with Victoria's TAFE Institutes and dual sector universities, the Victorian Government can ensure a skilled, adaptable, and future-ready workforce that is the cornerstone of a thriving clean energy future for Victoria.