



# National Energy Workforce Strategy

EEC Submission

September 2024



# About the EEC

EEC is the peak body for Australia's energy management sector.

We are a membership association for businesses, universities, governments and NGOs that have come together to ensure Australia harnesses the power of efficiency, electrification and demand management to deliver a prosperous, equitable, net zero Australia with:

- People living and working in healthy, comfortable buildings;
- Businesses thriving in a decarbonised global economy; and
- An energy system delivering affordable, reliable energy to everyone.

EEC works on behalf of its members to drive world-leading government policy, support businesses to rapidly decarbonise, and to ensure we have the skilled professionals to drive Australia's energy transformation.

## Overview

The EEC welcomes the opportunity to comment on the National Energy Workforce Strategy Consultation Paper. The EEC strongly supports the implementation of a National Energy Workforce Strategy to ensure the clean energy workforce is adequately supplied and skilled to achieve Australia's net zero goals through the energy transition. Workers who deliver energy performance improvements on the demand side are core to the energy transition but are not always in the foreground when clean energy jobs are considered. The EEC is supportive of the inclusion of energy performance in the scope of the strategy and encourages the consideration of the demand side workforce as critical moving forward.

Specific recommendations have been provided for attracting and retaining workers, improving workforce data and information, and coordination across governments in the sections that follow.

Please contact [Nat.Corveddu@eec.org.au](mailto:Nat.Corveddu@eec.org.au) for further information on any content within this submission.

## Attract and retain

### **Measures to increase diversity**

Increasing the diversity of energy sector workers has been identified as an important strategy to meet the workforce needs required to effectively deliver the energy transition.

The Powering Skills Organisation (PSO) 2024 Workforce Plan highlights the energy workforce has the lowest representation of women and second lowest representation of recent migrants across the 10 industry sectors within Jobs and Skills Australia's remit.<sup>1</sup> Additionally, First Nations peoples account for less than 2% of the energy workforce.<sup>2</sup> Addressing some of the key barriers to increase participation in the energy sector will play a role in expanding the pool of potential energy sector workers.

Key measures include those designed to attract and retain:

- **Women.** Women report gender discrimination as the main reason for leaving an apprenticeship, and a perceived lack of support in the workplace as a reason for withdrawing from the sector.<sup>3</sup>
- **First Nations peoples.** The PSO 2024 Workforce Plan identified barriers for First Nations peoples include difficulty entering courses available due to a lack of foundational knowledge and limited pathways into university and VET courses.<sup>4</sup> These could be addressed by introducing pre-vocational courses for building foundational skills as well as implementing bridging pathways to enable awareness and access to courses.
- **Skilled migrants.** For example, Jobs and Skills Australia's *The Clean Energy Generation Report*, highlights international examples of incentives to attract skilled workers including fast tracked visa processing and flexible admission conditions for those that work in occupations with critical workforce needs including the renewable energy sector.<sup>5</sup> The report recommends that skilled migration programs genuinely target areas of shortage and

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<sup>1</sup> Powering Skills Organisation, [Workforce Plan](#), 2024

<sup>2</sup> ABS, 2021 Census of Population and Housing, 2022

<sup>3</sup> Department of Education and Workplace Relations, [Australian Apprenticeship Services and Supports Discussion Paper](#), 2022

<sup>4</sup> Powering Skills Organisation, [Workforce Plan](#), 2024

<sup>5</sup> Jobs and Skills Australia, [The Clean Energy Generation Report](#), 2023

national priority. Other ideas include expedited recognition of foreign qualifications relevant to clean energy and efficient processing of international organisations sponsoring workers internally.<sup>6</sup>

Ensuring training packages through the VET system are fit for purpose is also key to attracting and retaining workers in the energy sector to overcome issues with training completion, associated trainees finding energy training packages confusing or difficult to navigate.<sup>7</sup>

### ***Promote and support demand side career opportunities beyond skilled trades***

While the need for trades such as electricians has been well publicised, a range of other roles are likely to be required to deliver the clean energy transition on the demand side, helping to deliver energy efficiency, fuel switching, electrification and demand management upgrades. These include energy management systems (EnMS) advisors, energy auditors and insulation installers, amongst others.

The EEC maintains several professional certifications for energy use professionals to demonstrate their proficiency in demand-side techniques that will be critical to enable the clean energy transition. For example, the EEC's Performance Measurement and Verification Analyst (PMVA) certification, attests to proficiency among engineers in implementing measurement and verification (M&V) solutions that demonstrate reductions in energy use. This certification is required for delivering M&V solutions under state-based energy efficiency schemes such as the NSW Energy Savings Scheme and the Victorian Energy Upgrades Program.

Certified EnMS Advisors are specialist energy use professionals who assist businesses to implement processes and procedures that enable continuous improvement in energy performance. The EEC's EnMS Advisor certification provides certainty that individuals have the knowledge and skills to effectively engage, advise and support a business to establish and sustain an effective EnMS.

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<sup>6</sup> Ibid.

<sup>7</sup> Powering Skills Organisation, [Workforce Plan](#), 2024

Neither of these roles are currently recognised by ANZSCO codes, yet their involvement in the clean energy transition is critical to ensuring that energy use properly aligns with changing energy supply dynamics.

There are likely to be significant opportunities for expanding the number of workers with these skills that are not being taken advantage of simply because they are not at the forefront of workers' minds when considering energy related jobs.

The Australian Government could play an important role to build up the pool of workers in these roles by:

- emphasising the importance of these roles through public communications materials and reports on clean energy jobs, highlighting the potential for career growth; and
- including these roles in data collection and modelling exercises related to workforce planning. Doing so may highlight potential gaps in the workforce and create an evidence base for new attraction and retention programs.

## Workforce data and information

### ***Collect accurate demand side workforce data through a national survey***

Better targeting workforce policy and programs, requires collecting accurate data on the current energy workforce. Specifically, data on the demand side workforce is limited and has significant gaps. The EEC advocates for better collection of data on the demand side including for roles such as EnMS advisors, insulation installers and measurement and verification professionals and stands ready to assist governments to collect such data. These roles are critical to the energy transition and it is essential to understand the size of the current workforce and where shortages might exist to deliver the energy transition.

The Government could take a major step forward in collecting this data by implementing the Australian Energy Employment Report (AEER) as originally proposed in the RACE for 2030 *Developing the future energy workforce* report.<sup>8</sup> Unfortunately, the AEER was implemented as an ‘opt in’ survey, resulting in minimal responses that did not accurately reflect the entire energy workforce when it opened for a brief period. While the AEER survey is currently inactive, it could still serve as a useful tool if remodelled to work in a similar way to the United States Energy Employment Report (USEER), and designed to be ‘opt out’, as it was originally intended.

### ***Support a standard methodology for calculating work needed for energy performance upgrades***

One area for which data are poor is on the full time equivalent (FTE) hours needed for energy performance upgrades in existing buildings and industrial facilities. Such data are needed for more accurately modelling the workforce needed to improve Australia’s energy performance. Understanding the average hours per trade per energy performance retrofit, underpins calculations of the requisite size of the workforce needed to deliver the transformation of Australia’s built environment and industrial facilities, consistent with achieving net zero emissions.

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<sup>8</sup> RACE for 2030, [Developing the future energy workforce](#), 2021

This requires developing a methodology akin to that created for the supply side by University of Technology Sydney’s Institute for Sustainable Futures.<sup>9</sup> Some state governments have expressed an interest in establishing this methodology themselves, but a national approach would be preferable.

### ***Standardise definitions of clean energy jobs***

The definitions of clean energy jobs remain inconsistent and often confusing. While Jobs and Skills Australia has undertaken a concordance of ANZSIC, ANZSCO and its own definitions of workforce sectors, uncertainty remains as to which jobs are part of the ‘energy sector’, let alone the ‘clean energy sector’. Many different definitions of the clean energy workforce have been proposed, sometimes conflicting, which has led to confusion within Government and industry.<sup>10</sup>

Defining clean energy jobs on the demand side is particularly challenging. For example, establishing whether a worker for a company that produces both efficient and less efficient appliances is a clean energy worker is not straightforward. Nonetheless, other countries have overcome these challenges so it is important that Australia does likewise. Supplying nationally consistent data and information across industry and government that all can refer to is critical for workforce planning.

## Coordination

### ***Coordinating workforce planning, data and information sharing across jurisdictions***

Ensuring coordination and collaboration across federal, state and territory governments is crucial to building the clean energy workforce. Close consultation across jurisdictions will avoid duplicative efforts and ensure consistency of policy outputs. The Commonwealth Government should bring together states and territories to share information related to workforce development, coordinate workforce strategies, and collectively develop nationally consistent

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<sup>9</sup> UTS Institute for Sustainable Futures, [Renewable Energy Employment in Australia: Methodology](#), 2020

<sup>10</sup> Jobs and Skills Australia, [The Clean Energy Generation Report](#), 2023



datasets regarding workers and skills. It would also be beneficial to collect demand-side specific workforce data through a national survey, like the AEER, as opposed to ad-hoc data collection processes run by different states and territories.

## ***Promote professional development and certification in the energy sector***

Training and certification delivered by industry groups is currently critical to enabling parts of the transition. These programs bridge the gap between licenced professions and unregulated services and are important to ensure safety of procedures as well as building trust among consumers. Delivering training and certification through industry groups represents a flexible, rapid and responsive avenue for delivering relevant training, which may not be available through traditional VET or higher education providers.

In some cases, these programs have led to the development of nationally-recognised training. In others, the gap remains, with simpler pathways for introducing industry-developed competency specifications and training courses into the National Register of VET required, as this is essential to scaling deployment.

While industry associations are often best placed to deliver targeted professional development training programs, the Government could play a knowledge sharing role, ensuring the training offerings are promoted across jurisdictions and industry.

Governments can also promote certification and the associated training by making it a requirement to participate in government programs. For example, the EEC's Certified Insulation Installer program underpins several state and territory government initiatives to install insulation to buildings, improving buildings' thermal performance and the quality and safety of installs. The Federal Government should lead by example, by making certification a requirement under its own programs and raise the need for certification and training with state and territory governments in forums such as the Energy and Climate Ministerial Council.

## ***Provide policy certainty to encourage investment in skills needed for the energy transition***

The Federal Government should send clear policy signals – particularly in relation to energy performance – to provide businesses with the certainty they need to make investments in supply chains and skills. While the National Energy Performance Strategy is a starting point that creates a framework, in the absence of tangible Australian Government policies and regulations to deliver a step change in energy performance, businesses will be reticent to hire new workers or develop new skills within their existing workforce.

In contrast, strong policy certainty – for example, by setting targets, creating incentives or setting new regulations for energy performance – sends a clear message that business should invest in training and skills development. This is particularly important as Australia is competing with other countries for skills and labour. For example, both Europe and the United States have strong policies for electrification and energy efficiency and workers may be attracted these countries if Australia continues to lack a clear national policy suite for improving energy performance.



**Energy Efficiency Council**

Level 18, 1 Nicholson Street,  
East Melbourne 3002  
Victoria, Australia

[eec.org.au](http://eec.org.au)