Brotherhood of St Laurence
Working for an Australia free of poverty

Australia's clean energy workforce

Submission to Jobs and Skills Australia, May 2023

The Brotherhood of St. Laurence (BSL) welcomes this opportunity to comment on the 'Australia's clean energy workforce' discussion paper issued by Jobs and Skills Australia (JSA).

The transition to clean energy is critical to Australia's decarbonisation efforts, as energy makes up the majority of our domestic emissions (DCCEEW 2022). The energy sector is also expected to decarbonise faster than most other sectors (AEMO 2022), necessitating a rapid transformation that will reshape certain industries and communities, such as those with coal power plants. Most coal-fired power stations are expected to close by 2035, with substantial renewable energy and transmission builds required by that time to replace their generation. To ensure equity in the transition, it is vital that local communities, including people currently not in the workforce, are able to participate in job opportunities from the development of clean energy.

We see the Clean Energy Capacity study as an important step. As recognised by JSA in its scan of international literature on the 'green workforce', the clean energy workforce only represents a part of an Australian workforce that will be impacted by climate change mitigation and adaptation efforts. Accordingly, we hope that similar studies are undertaken in other employment fields likely to be affected by climate action.

This brief submission outlines BSL's answers to topics raised in the discussion paper, informed by research and consultation. We would welcome the opportunity to engage with JSA further on the topic.

1 Definition and terminology

BSL believes that JSA's proposed definition of 'clean energy workforce' could be clarified. While the discussion paper's explanation of what is intended to be included in the definition is sound, the definition itself seems ambiguous regarding energy efficiency, electrification, and energy use.

JSA's proposed definition includes the following:

'the clean energy workforce includes the workers involved in developing, generating, storing, transmitting and distributing energy generated from renewable, net-zero emissions sources ('clean energy supply'), and installing and maintaining the technology that uses clean energy rather than fossil fuels ('clean energy use')[...]' (Jobs and Skills Australia 2023:8).

The definition's reference to 'technology that uses clean energy rather than fossil fuels' will logically include anything that uses electricity once the electricity grid is decarbonised, which is

presumably not the intent. Conversely, while the definition is intended to include energy efficiency workers, jobs related to non-energy-using technologies such as building fabric or glazing upgrades do not fit within the proposed wording.

We recommend rewording the proposed definition to address these issues. We welcome the inclusion of employment in the residential sector (rooftop solar; heating, ventilation and air-conditioning technicians), alongside jobs in the large-scale renewable electricity sector, and see it as important that these are clearly reflected in the definition.

2 Barriers to education and employment

Many of the barriers to education and employment in the clean energy sector are common to other sectors, however, there are some specific barriers in the sector. For general barriers please refer to BSL (2023).

Transport and housing

It is important that JSA's study acknowledges and investigates access to transport and housing as key barriers to those seeking education and employment in clean energy occupations. This particularly applies to the large number of roles and opportunities in regional and remote communities across Australia, which are already severely impacted by lack of access to housing and transport. The impact of these barriers is exacerbated for people in identified priority cohorts, such as women and culturally and linguistically diverse people. Renewable Energy Zones are likely to face specific housing affordability challenges during the construction phase of large-scale projects, unless appropriate planning for housing is put in place. Those without access to a car, or a licence, are also likely to face barriers to employment in some of the large scale projects.

Lack of information about future demand for clean energy workers

Limitations in the existing information about the future demand for clean energy workers present a barrier to many people's ability to make informed decisions about their education and employment choices and investments. This affects both people considering retraining and the next generation of workers.

To address this, Australian governments must develop their knowledge and ability to forecast clean energy workforce demand and the implications for training. JSA's study presents an important step in this process, but we will need specific studies and strategies for the types of clean energy (e.g. not only large-scale renewable energy, but also gas and electrification, hydrogen, and residential energy efficiency) and for geographic areas.

Forecasts should be informed by existing plans for the energy sector, such as the Integrated System Plan (by the Australian Energy Market Operator), plans for renewable energy zones, and state-level plans such as Victoria and the ACT's gas substitution roadmaps. Australia's new Net Zero Authority should be closely involved.

Once developed, this information base should underpin engagement with local and regional communities, outlined in the next section.

Education and engagement

For JSA's study, and efforts to understand job markets more broadly, it is crucial to engage with local education providers, employers and other key stakeholders, to build an understanding of what resources exist and what is needed.

The BSL's mid-2022 consultation with education providers and communities in regional and remote areas has identified the need for strong education and engagement efforts. These efforts should seek to raise awareness among learners, jobseekers and communities of the short and long-term prospects and career pathways in clean energy and related fields.

This engagement should be based on the forecasting discussed above, and take account of time and place-specific factors, such as reductions in the availability of jobs as renewable energy construction projects are completed and move into maintenance and operational phases.

Where possible, governments and education providers should seek to invest in the design and delivery of skills programs that develop workers' and learners' transferrable skills to ensure mobility both within and beyond renewable energy employment.

3 Analytical approach

It is important that JSA seek the input of civil society stakeholders (e.g. not-for-profits and support services). These organisations will provide insight regarding the failure of existing policy to include and enable disadvantaged, long-term unemployed and marginalised jobseekers and learners. This is particularly relevant considering the high concentration of emerging employment opportunities in regional and remote locations, where local knowledge will be essential for contextualising national-level evidence and trends.

Several organisations and institutions within Australia already provide strong workforce forecasting and labour market analytical functions. This includes a diverse group of organisations, from traditional consulting firms (such as Deloitte and PwC) commissioned by industry and peak bodies, institutions such as the University of Technology Sydney's Institute for Sustainable Futures, to more education and skills focused research organisations such as the National Centre for Vocational Education Research. To address the existing weaknesses in Australia's workforce development practices and skills system, JSA needs to do more than just duplicate this existing function.

In addition to quantitative data, there is significant benefit to be gained from JSA engaging with existing education and workforce research centres and institutions to undertake short-cycle qualitative research on place and sector specific needs to complement JSA's analysis of workforce projections. This approach will have the benefit of enhancing cohort-level analysis, developing and leveraging specific local and regional insights, and building skills system specific research capability within tertiary institutions. Commissioning research from experts with expertise in both the needs of the clean energy transition and needs of specific regions can address issues of genericism that can emerge in research undertaken solely through a national lens.

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