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INSTITUTE FOR ENERGY TRANSITION

Skilling Australia's energy transition through immigration

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Context

650,000

more jobs will be needed in the Australian energy sector by 2050

(Net Zero Australia, 2023)

By 2050, the demand for workers in the clean energy sector is predicted to have grown by

60%

(Jobs and Skills Australia, 2023)

The rapid and large-scale adoption of renewable energy systems and decarbonisation of Australia's export sector requires a significant increase in the workforce. Projected skilled worker shortages include engineers, installers, trade workers (construction workers, electricians, mechanical trades, plant operators), surveying technicians and transport operators. Workers with skills relevant to the energy transition will be in global demand as the transition advances, meaning that attracting these workers to Australia will only become more difficult with time.

Current and emerging skills shortages have the potential to prevent Australia from reaching net zero by 2050. Though areas for workforce development have been identified, the rate of retiring workers, a lack of trade schools, a high dropout rate of electrical apprentices, a lack of available renewable energy electives and a shortage of educators to teach these electives mean that other sources of labour supply must be considered.

Immigration can serve as a mechanism to meet these workforce needs. However, given the international demand for energy transition talent, there is a need to investigate how Australia's attraction and retention policies compare with those of other countries. Factors influencing worker attraction and retention span a broad range of considerations. They include the types of visas being offered, how straightforward the migration process is, whether the destination country has specialist programs for workers and is family-friendly, the quality of healthcare and education, and whether the country welcomes migrants and minorities.

Barriers for migrants

In Australia, approximately

620,000

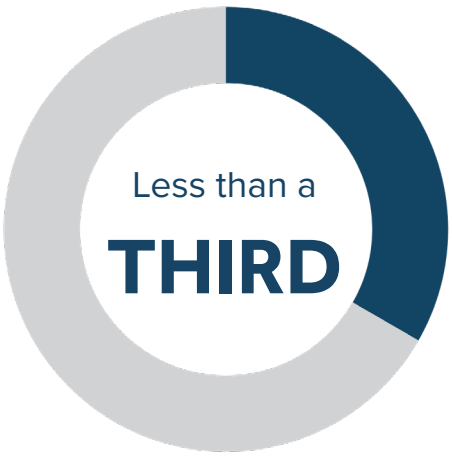
permanent migrants **are working below their skill level,** even though

60%

of these migrants came to Australia **through the skilled migration visa stream**

(Jiang & Nguyen, 2024).

of Temporary Graduate visa holders secure full-time employment in Australia



of international graduates transition to permanent Australian residency

(Coates et al., 2023)

School fees charged for a single child from a family on a 482 visa to attend a **public high school** in Western Australia*

* Not including costs of school books, excursions, uniforms and other important items required for the student's education

Recommendations

Australia has many strengths in its capability to attract international talent to skill the transition to renewable energy. However, workers with skills relevant to the energy transition will be in global demand as the transition advances, meaning that attracting these workers to Australia will only become more difficult with time.

Therefore, Australia needs to remain competitive in this area. Below are recommendations for how Australia can accelerate its potential for attracting and retaining workers for the energy transition.

1. **Ensure that migrant skills are adequately recognised in the visa system.**
2. **Incentivise pathways to permanent residency.**
3. **Raise awareness of career opportunities in the Australian clean energy transition.**
4. **Refocus attention on regional Australia as a desirable destination for skilled migrants working in the energy transition.**
5. **Address areas of relative weakness relating to childcare, education and healthcare.**
6. **Address the systemic workplace cultural barriers for immigrants and women.**
7. **Improve cross-cultural understanding of migrants' experiences in Australia.**

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