FIRST NATIONS
CLEAN ENERGY NETWORK

Powering First Nations Jobs in Clean Energy

June 2024

Acknowledgement of Country

The First Nations Clean Energy Network acknowledges the Traditional Owners of Country throughout Australia and recognises the continuing rights, interests and connection to lands, sea, waters and communities. We pay our respect to Aboriginal and Torres Strait Islander cultures, and to Elders past, present and emerging - for they are the safe-keepers of the oldest living cultures in the world, which is a source of shared pride for us all. We draw upon their wisdom, knowledge and leadership to guide us in our work.

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Preface

Steering Group Co-Chair's Foreword

The First Nations Clean Energy Network was launched in late 2021 in Mparntwe, Alice Springs with a goal to ensure that First Nations participate in and benefit from Australia's energy transition.

We are a national Network made up of First Nations people, groups and community organisations and land councils; with the support of unions, academics, industry groups, technical advisors, legal experts, renewable companies and others - working in partnership to ensure that First Nations share in the benefits of Australia's clean energy transition.

We have grown in just over two years, supported by our Steering Group, to 1000 First Nations members (individuals and organisations) and thousands of other supporters, built around our three pillars of:

- Community
- Industry partnerships
- Policy reform

Since our launch, we have witnessed the release of a number of reports about job and skills development opportunities - many of which highlight the significant and beneficial employment and career opportunities emerging in Australia's workforce to meet the demands of transitioning to an economy based on clean energy.

These reports typically highlight that for those wishing to explore a career in the clean energy sector, there will be significant opportunities for new career pathways and ways to upskill, at some point in the future.

But we also see that these reports don't focus on what is happening now on our traditional lands or address the needs, the aspirations of First Nations, or the situations faced by our communities - nor do they identify specific pathways or policy and program opportunities for our people to benefit from jobs in the new clean energy economy.

In undertaking this work, we wanted to identify pathways and options for First Nations to be supported to enter the workforce in the clean energy sector and be able to access the quality job opportunities and career pathways as they emerge. We are not the first and won't be the last to identify that employment can lead to self-determination and empowerment of First Nations.

We also know there have been countless government inquiries and reports into First Nations employment outcomes.

For Australia's increasingly rapid transition to clean energy, this is something we want to avoid - we don't want to see a government inquiry launched in 10 years trying to identify why First Nations were excluded from and aren't benefiting from job opportunities in clean energy. Or why First Nations were excluded from the largest industrial revolution many of us will see in our lifetime.

By identifying what works and being ambitious with our aspirations, we can establish a skills development and employment system for clean energy that supports our people to enter the clean energy sector, gain the skills required, and identify pathways into meaningful careers.

This report and the recommendations and actions that emerge from it will help get the settings right to ensure First Nations are able to access and choose high-quality jobs in the clean energy sector.

Karrina Nolan
Co-Chair
First Nations Clean Energy Network
Steering Group

Chris Croker
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Steering Group

Executive Summary

Increasing access to training, creating employment, and building career paths in clean energy is one of the key factors that will determine if the energy transition improves the lives of First Nations Australians. Building longer-term employment and skill development ('careers not jobs') is a primary pathway to generational wealth building for First Nations Australians.

Currently, there are low numbers of First Nations Australians working in the clean energy sector. The First Nations Clean Energy Network engaged the Institute for Sustainable Futures (University of Technology Sydney), SGS Economics, Alinga Energy and Indigenous Energy Australia to examine the barriers, opportunities and solutions to increasing First Nations Australians' employment in clean energy.

Through a combination of employment modelling and data analysis, literature review, interviews and workshops, this study has developed an action plan with 12 key recommendations for how industry, government and employment and training specialists and First Nations communities can realise opportunities for employment and career paths in clean energy.

The gap in employment rates for First Nations Australians has not narrowed for three decades

The context for clean energy is that employment rates for First Nations Australians are much lower than non-indigenous Australians – just over half of First Nations are employed compared to the population-wide rate of 64.5% based on the 2021 census (Jobs Skills Australia 2023a). Across all sectors, First Nations make up 1.9% of the workforce (and 3.8% of the population).

The Productivity Commission (2020) finds progress is being made against most of the education and training **Closing the Gap** Targets such as the proportion of First Nations youth who are completing Year 12 (target 5) and at least a Certificate III qualification (target 6).

However, as the Australian Government's Employment White Paper (2023) noted:

> *'..The employment rate of Aboriginal and Torres Strait Islander people continues to significantly lag that of non-indigenous people, and the gap has not closed notably over the past 30 years'.*

The stagnation in employment rates of First Nation Australians even as educational attainment has increased reflects deep structural sources of disadvantage beyond the labour market (health, housing, access to transport) as well as within the labour market.

Most First Nations qualifications are not related to clean energy – although there has been some recent growth

The most common qualifications of First Nations Australians are in areas that do not feed into clean energy (such as society and culture, health, and hospitality).

However, there has been recent growth in adjacent qualifications (e.g. engineering and related technologies, management and commerce). First Nations Australians are now equally likely to be employed as a trade or technician as the non-indigenous population (12%), with motor mechanic the most common trade. Some of the most popular apprenticeships for First Nations students are in construction trades, automotive and engineering trades and electro-technology and telecommunications.

Nonetheless, Jobs Skill Australia (2023) observes that the level of employment of First Nations people in occupations used by clean energy is low.

There is a significant opportunity to increase First Nations employment in the Renewable Energy Zones (REZs)

In order to understand the potential for increasing First Nations employment in the REZs, demographic and labour market analysis was undertaken across a selection of REZs in South Australia, Victoria, NSW and Queensland.

First Nations populations in the REZs are higher than average – and peaks in the key NSW REZs – and very young

The First Nations share of population averages 6% across the REZs, significantly higher than the national population share.

The highest population shares are in the New England and Central-West Orana REZs in NSW (9.4% and 12.7% respectively), where most of the State's development is planned to occur. In Queensland, the First Nations share of population ranges from 4.4% (Wide Bay REZ) to 9.6% (Banana REZ). By comparison, First Nations only average 2.5% of the population in Victorian REZs and 2.2% in South Australian REZs.

Based on census data, First Nations residents in the REZs are typically much younger - just over half are aged 19 years or under compared to approximately one-quarter of the REZ population – which highlights the importance of initiatives for school students.

First Nations employment targets of 5 to 10% appear achievable across most REZs over time

There are three main avenues for growing the First Nations workforce in the REZs: existing workers shifting into renewable energy, school leavers entering the workforce, and those who are unemployed or not currently in the labour force. The labour supply which could occur from these sources of new entrants were compared to employment demand in the REZs modelled against the Step Change scenario in the Integrated Systems Plan.

Our analysis investigated the potential for targets of 1.5%, 5%, and 10% of renewable energy jobs for First Nations workers within the REZs. 1.5% is a common benchmark in infrastructure tenders for First Nations employment. 10% was nominated as a 'stretch goal' in the tender guidelines for the NSW auctions for Long-Term Energy Supply Agreements (AEMO Services 2022: 67). 5% is a mid-point between these minimum and stretch goals.

For a 1.5% target, in most REZs there are already sufficient First Nations people working in occupations adjacent to the renewable energy sector – and around half the REZs have sufficient existing workers with the right occupational profile for a 10% target in 2030.

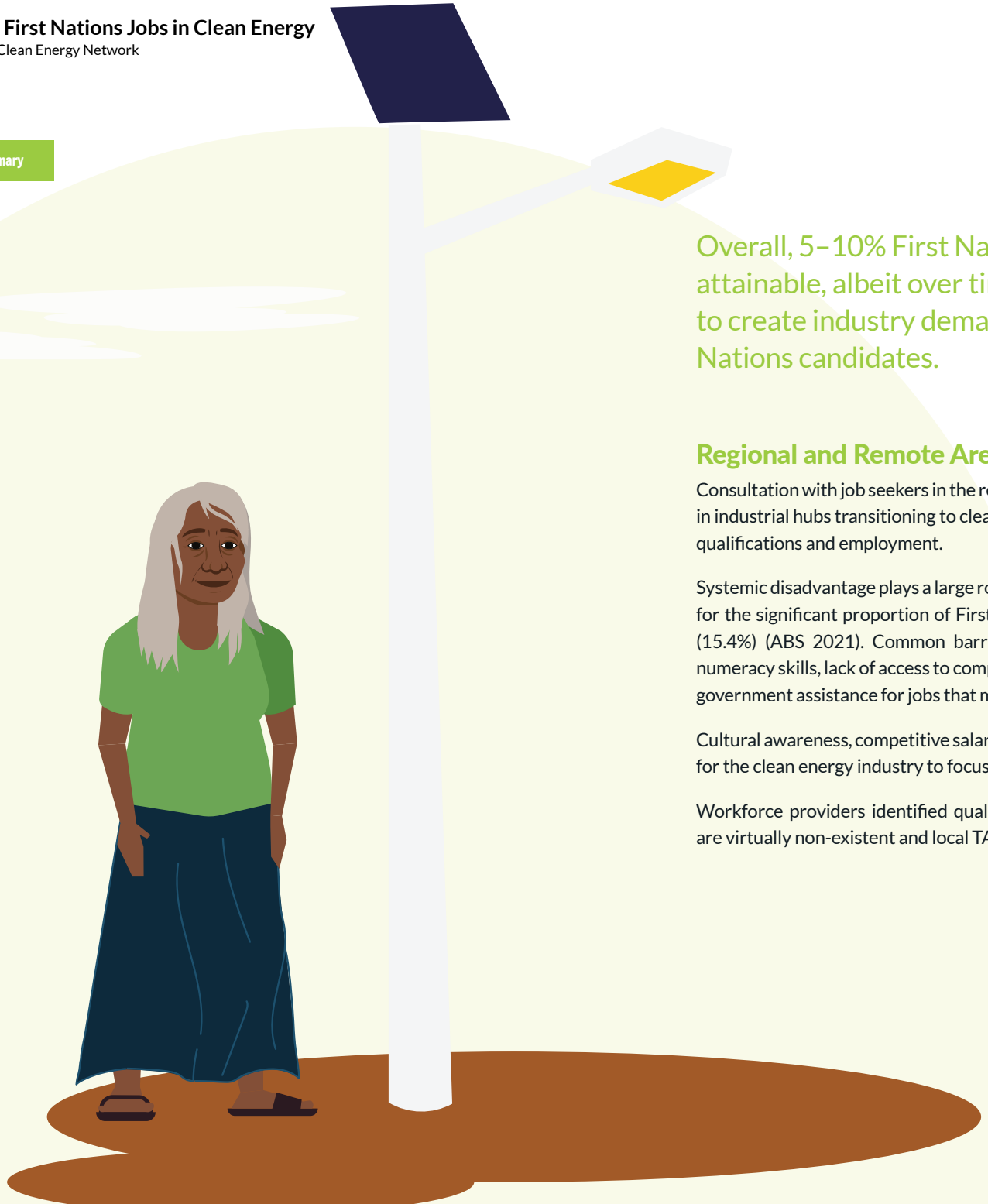
If First Nations youth (15-19 year olds) enter renewable energy sector-aligned occupations at the same rate as present (the 'BAU participation rate') which is between 1-3% across the REZs, the volume of First Nations new entrants equates to a 5% target in most REZs and a 10% in over half of the REZs.

Likewise, if the participation rate for First Nations people who are unemployed or out of the labour force could be increased to the BAU participation rate, this alone would equate to a 5% target in most REZs.

In practice, there are significant challenges in achieving these participation rates. An occupational analysis of the current workforce illustrates there is a heavy concentration in a handful of occupations, especially truck drivers, which therefore does not provide a strong base. There are also major structural barriers to increasing participation amongst First Nations people who are unemployed and not in the labour force, and employment would need to be in entry-level positions.

Nonetheless, the results indicate if renewable energy could attract and train even modest proportions of First Nations youths, this would make a large contribution to the achievement of targets in most REZs

Equally, the use of pre-employment programs and other initiatives to employ just 1–3% of the unemployed and not in the labour force also appears attainable, especially in solar farms.



Overall, 5–10% First Nations employment targets appear attainable, albeit over time and dependent upon programs to create industry demand and attract and train First Nations candidates.

Regional and Remote Areas

Consultation with job seekers in the regional community of Yarrabah and workforce providers in industrial hubs transitioning to clean energy regions revealed consistent barriers to gaining qualifications and employment.

Systemic disadvantage plays a large role in limiting the training and employment opportunities for the significant proportion of First Nations people living regionally (43.8%) and remotely (15.4%) (ABS 2021). Common barriers included lack of transportation, low literacy and numeracy skills, lack of access to computers and work-welfare disincentives (the risk of loss of government assistance for jobs that might not be stable discourages workforce participation).

Cultural awareness, competitive salaries and established training pathways will be key aspects for the clean energy industry to focus on to compete with jobs in mining.

Workforce providers identified quality regionally based Registered Training Organisations are virtually non-existent and local TAFEs are severely under-resourced.

An action plan for increasing First Nations employment and training in clean energy

Past reviews have found most policies and programs have had limited success or primarily increased First Nations employment in low-skill, temporary jobs. Well-designed programs and high levels of collaboration will be required to do better in clean energy than in the past.

One of the key learnings from past programs is that supply and demand measures need to be integrated wherever possible. Supply-side measures on their own can easily become 'training for training sake' – in our fieldwork we found a lot of cynicism amongst First Nations people about the commitment of industry to deliver jobs. Demand-side measures on their own risk 'accounting' exercises as the industry finds way to comply with targets without the people with the right skills to create real employment opportunities.

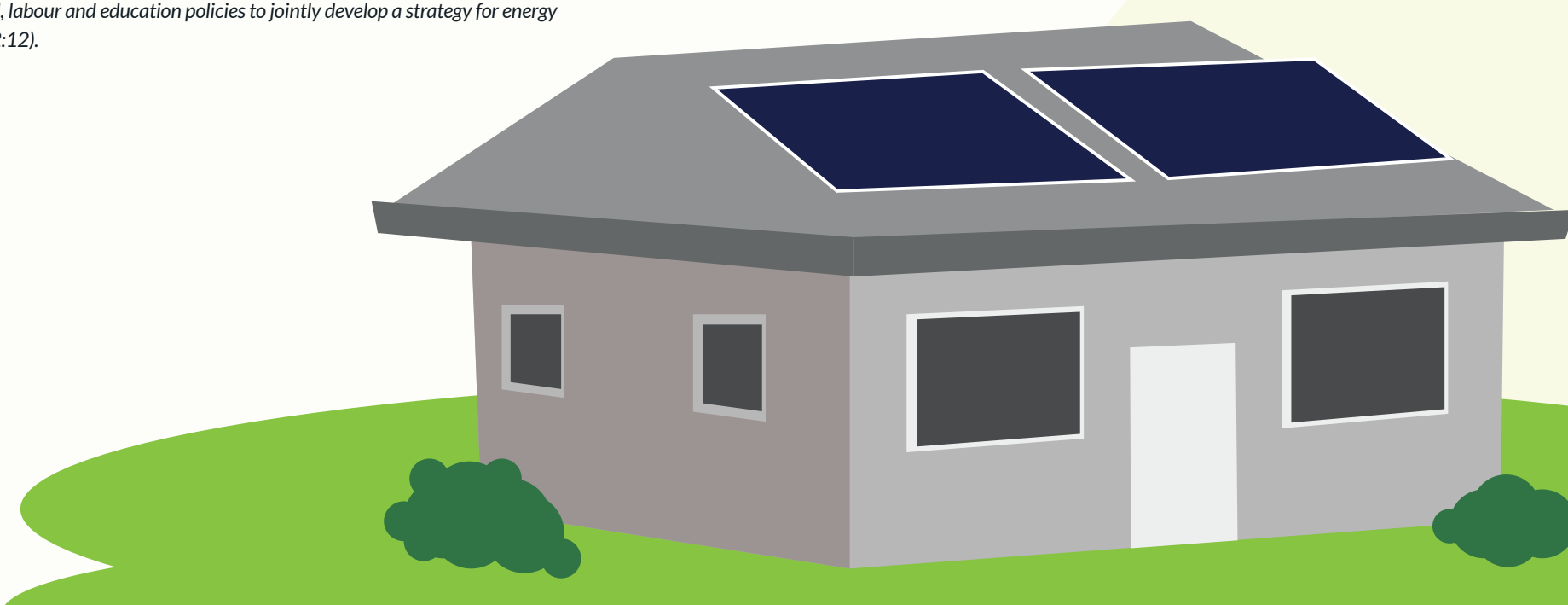
A review of 'diversity' programs by the International Energy Agency (IEA) found outcomes are best when employment and training initiatives are integrated into the fabric of other policy domains that typically drive the change – climate, energy and industry policy:

> *'Many governments are investigating the development of training, re-skilling and educational programmes in anticipation of the upcoming changes. The most advanced programmes align energy, industrial, labour and education policies to jointly develop a strategy for energy transitions' (IEA, 2022:12).*

There are four types of actions recommended:

1. **'Demand-side' measures to increase clean energy employment opportunities for First Nations Australians**
2. **'Supply-side' measures to increase the volume of First Nations Australians with the right skills**
3. **'Enabling' measures that connect industry, employment and training resources and First Nations people**
4. **'Cross-cutting' measures to increase the capacity of First Nations organisations and change the culture of the Clean Energy industry.**

In practice, even when an action is classified as primarily 'demand-side' or 'supply-side', integration of labour supply and demand-side and other supporting measures will be required to be successful.



Action plan

An action plan for increasing First Nations employment and training in clean energy

OPTIONS FOR INCREASING FIRST NATIONS EMPLOYMENT AND TRAINING IN CLEAN ENERGY

SUPPLY-SIDE

- First Nations school students: careers programs and outreach campaigns
- School-to-VET Transitions: interns, trainees, pre-apprenticeship and apprenticeship programs
- University: outreach engagement by Regional Universities Centres and First Nations cadetships
- Pathways into the workforce: pre-employment programs for solar farms

Increased supply of First Nations people with skills for clean energy

◀ ▶

First Nations clean energy mentors, role models & development of pathways

ENABLING MEASURES

- Industry support program: embed project officers for recruitment and training services
- Tenders for Group Training Organisations to host apprentices across REZs and indigenous housing retrofits
- Place-based collaborations between industry, First Nations organisations and training bodies.

Developing industry and training capacity to achieve employment targets

◀ ▶

Leveraging procurement and voluntary commitments to increase demand for First Nations workers

DEMAND-SIDE

- First Nations employment and training targets: the Capacity Investment Scheme & State REZs
- Industry program for First Nations wind maintenance technicians
- First Nations employment targets and training for Indigenous housing retrofits, micro-grids and diesel replacement programs
- 'Career trackers for clean energy': long-term industry commitments to First Nations cadetships

CROSS-CUTTING

BUILDING THE CAPACITY OF FIRST NATIONS ORGANISATIONS, NETWORKS AND BUSINESSES

- Support for First Nations businesses to participation in clean energy projects through capacity building for tendering
- Develop a national community of practice for First Nations organisations to collaborate and share knowledge on participation in the clean energy sector
- Fund capacity building programs which support the creation of First Nations businesses

CULTURAL COMPETENCE OF THE CLEAN ENERGY SECTOR

- Improve cultural awareness through greater take-up of RAPS and equivalent commitments among clean energy sector companies
- Increasing cultural competency through incentives, funding and tender requirements

Twelve recommendations and actions

1. Incorporate First Nations employment and training targets into the Capacity Investment Scheme

RATIONALE

Jobs Skill Australia (2023) recommends the Australian Skills Guarantee procurement requirement for 1-in-10 workers to be a learning worker (apprentice, trainee or paid cadet) be applied to clean energy to increase investment in training across the sector. The review of the Indigenous Employment Skills Program noted the absence of firm job commitments by industry has too often limited progress. Mandatory employment and training targets for renewable energy were very strongly supported by First Nations organisations and communities in our fieldwork, based in particular on poor experiences with solar farms.

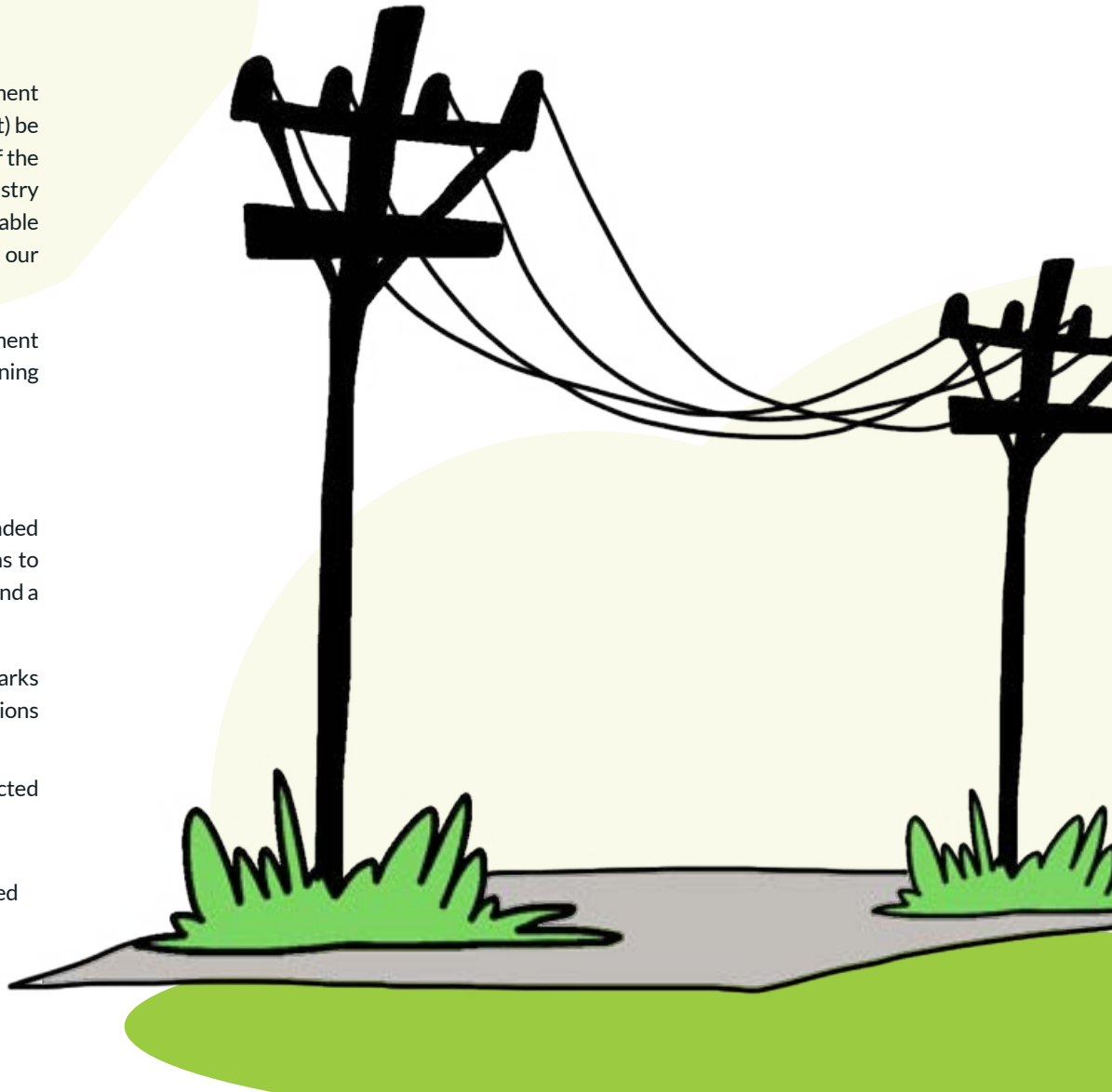
The inclusion of mandatory employment and training targets in the Capacity Investment Scheme (CIS) could establish a benchmark that increases employment and training opportunities for First Nations Australians in renewable energy procurement.

DESCRIPTION

Inclusion of employment and training targets need to be well-designed to avoid unintended consequences. Targets that are too ambitious and not supported by long-term programs to increase the supply of qualified candidates can drive 'accounting' exercises to 'tick boxes' and a focus on short-term, low-skill jobs without more lasting changes.

A 'coordinated flexibility' approach should be adopted which creates minimum benchmarks whilst enabling flexibility for implementation at State and REZ level reflecting variations between regions and sectors.

- Some REZs can accommodate higher targets than others which should be reflected in timing and ambition.
- There are differences between sectors. Solar farms have greater opportunities for entry-level jobs for local First Nations communities which should be reflected in mandatory employment targets, whereas targets for wind farm construction should focus on increasing intakes of apprentices and trainees.



Complementary training measures are required to support achievement of targets.

Flexibility in how targets are achieved is likely to enable better outcomes. For example, contracts with First Nations businesses should be recognised as an alternative to direct employment, as could funding for accredited training and employment in other sectors via community benefit funds where targets cannot be achieved in construction.

ACTIONS

- **1.1 Mandate compliance with the National Indigenous Procurement Policy in the CIS and State Government tenders, and include incentives in criteria for higher First Nations employment and training outcomes**
- **1.2 Incorporate the Australian Skills Guarantee within criteria in the CIS for generation, storage and transmission procurement**
- **1.3 Require states to set First Nations employment targets for solar farms in the REZs through Renewable Energy Transformation Agreements being negotiated for the CIS**
- **1.4 Provide funding for the states to implement a support program based on NSW Infrastructure Legacy Skills Program to assist companies to meet targets.**

2. Coordinated industry program for First Nations apprentices in wind farm maintenance

RATIONALE

Voluntary industry targets and initiatives will in general work better than mandatory targets where there is sufficient commitment. From our fieldwork, the conditions exist for a coordinated scheme with wind farm operation and maintenance firms to engage First Nations apprentices and trainees as mechanical technicians:

- There is very strong interest across the wind OEMs interviewed due to skill shortages and recognition of the opportunity for social impact
- Motor mechanics have a higher First Nations presence than many trades – these skills are highly transferable – and there are lower barriers to entry than some trades (e.g. less maths than electrical)
- Jobs are long-term and often on-country or 'drive-in, drive-out' within a region once wind farms are installed.

DESCRIPTION

A coordinated scheme is required to realise this opportunity which could serve as a model for other areas. Some wind firms interviewed tried previously without much success, whilst others were unsure how to proceed. There was a common belief amongst the wind firms that a coordinated approach across industry with employment and training service providers supporting implementation was required to make it happen. Amongst First Nations stakeholders, we found low trust and confidence about whether renewable energy companies will deliver employment, which needs to be addressed through firm industry commitments and the involvement of trusted intermediaries that can build cohorts of First Nations candidates.

In our view, a coordinated scheme within target regions to build cohorts of First Nations candidates for wind farm mechanical apprenticeships could demonstrate to both renewables companies and First Nations communities the opportunities and learnings on how to make it work. Pilots could be developed through the Indigenous Employment Skills Program for identified regions.

ACTIONS

- **2.1 The Federal Government broker and coordinate consultation between wind OEMs, state governments and First Nations stakeholders to co-design a coordinated scheme for wind farm mechanical apprenticeships and identify pilot regions**
- **2.2 Wind OEM's develop employment and apprenticeship targets for First Nations students and supporting programs to create culturally safe workplaces**
- **2.3 Funding be provided through the Indigenous Employment Skills Program for a program coordinator and trusted service providers to identify First Nations students and provide wrap-around support services.**

3. Integrate First Nations employment and training targets and initiatives into housing retrofit, diesel replacement and micro-grid programs

RATIONALE

Major Australian climate and energy programs rarely incorporate employment and training initiatives, but there are opportunities to integrate employment and training targets and complementary supply-side programs in First Nations clean energy programs, such as First Nations housing retrofits, First Nations micro-grids and future programs (e.g. diesel replacement with solar and battery). First Nations staff are likely to lead to better program outcomes and the programs create the scale and funding leverage to create apprenticeship and employment opportunities.

DESCRIPTION

Programs for First Nations housing retrofits could leverage competitive tenders to secure commitments to apprenticeships for trades that are central to the energy transition (electricians, plumbers, air-conditioning and refrigeration technicians) and employment in other areas such as community engagement, energy auditors and sales/administration. First Nations housing retrofits could provide a 'bridge' to the coming wave of large-scale renewable energy projects in the REZs as, for example, electrical apprentices undertake the domestic component of their apprenticeship before working on large-scale projects.

First Nations housing retrofits appear to be the largest opportunity, but there are other programs being delivered in First Nations communities such as diesel replacement and micro-grids that could implement a comparable model.

ACTIONS

- **3.1** **Employment and training targets be applied and implemented in the delivery of First Nations housing retrofit programs**
- **3.2** **Funding be provided for complementary programs, including pre-apprenticeship programs, funding for Group Training Organisations (see action 9) and an industry support program with embedded project officers, to support achievement of targets (see action 10)**
- **3.3** **ARENA and CEFC to review procurement guidelines to incorporate employment and training targets for First Nations programs**
- **3.4** **Investigate funding and programs for utilities to increase employment and training for First Nations people within micro-grid and remote community energy management**

4. 'CareerTrackers for Clean Energy': long-term Industry Commitments to First Nations cadetships

RATIONALE

A review for the National Indigenous Australians Agency (NIAA) found Indigenous cadetships programs had a 'meaningful' impact on the probability of university entrance, completion and employment (Inside Policy 2020). There is high demand and supply shortages in a range of professional and management occupations in energy management and efficiency as well as renewable energy. During stakeholder engagement, it was suggested a 'CareerTrackers for Clean Energy' initiative – the best known of the providers - could be developed to create pathways for First Nations students to enter professional employment across the energy sector.

DESCRIPTION

Funding should be provided for an initiative between universities, energy industry and professional associations and their members and cadetship service providers to increase the volumes of First Nations students completing degrees in clean energy qualifications. There are a number of components to a 'CareerTrackers for Clean Energy' style initiative including:

- Industry commits to long-term agreements to engage and employ First Nations students as cadets, participate in community engagement and other supporting measures (e.g. culturally safe workplaces).
- Long-term funding for university scholarships and for cadetship specialists to identify students and provide support services to make it easier for firms and manage interaction with schools and universities.

ACTIONS

4.1 Federal Government to fund and lead co-design of a First Nations Clean Energy Cadetship Program with energy industry and professional associations, First Nations representatives, cadetship service providers and universities

4.2 Energy industry and professional associations to lead a recruitment drive for members to sign 10-year commitments to a First Nations Clean Energy Cadetship program

5. Clean energy careers for First Nations school students

RATIONALE

First Nations stakeholders interviewed for this project agreed there is generally low awareness of clean energy and the types of jobs available amongst First Nations communities, especially students. The young profile of First Nations communities also means the greatest opportunities for change are in the school student cohorts.

Some of the activities that could be included:

- A needs assessment and gap analysis for First Nations students to work in clean energy
- Outreach campaigns to raise awareness of the clean energy sector: stakeholders noted the campaign would need to be well-designed to reach First Nations students and highlight connections between clean energy and First Nations knowledge and culture
- Information and engagement programs to enable First Nations students to better understand the employment opportunities and pathways into these jobs
- Programs to create opportunities such as school based apprenticeships and internships
- Embedding clean energy education in the curriculum (e.g. such as site visits to wind and solar farms)
- Equip First Nations students with practical skills such as interview practice, resume writing, and understanding the job application process.
- Development of role model campaigns with the participation of industry, including paid time for First Nations employees to participate in videos, school engagement and other elements of campaigns

It is important that these engagement activities include a focus in regional and remote areas where the infrastructure will be located.

ACTIONS

5.1 Form jurisdictional working groups comprising clean energy industry, State Department of Education representatives and First Nations representatives to develop First Nations clean energy school programs.

5.2 Develop an information program and outreach campaign on clean energy, career opportunities and pathways which includes tailored First Nations activities.

6. School to VET transitions: Traineeships and Apprenticeships

RATIONALE

The review of the Indigenous Skills Employment Program found that school to work and training 'continues to be a pressure point' for First Nations students. Co-designed training programs to strengthen the transition between school, university and training were identified as a core priority for the ISEP (Inside Policy 2020: 12).

Jobs Skills Australia (2023: 128) has also noted the clean energy sector currently makes only limited use of 'supported entry pathways' – only around 2,300 students commenced a school-based apprenticeship in a clean energy relevant training package in 2022.

DESCRIPTION

There are a range of initiatives in other sectors that provide models for the design of school apprenticeships and internships and transition programs into apprenticeships such as the First Nations Health Worker Traineeship, Aboriginal Civil Construction Training, and the NSW School-based Aboriginal Traineeship Program. Pre-Apprenticeship programs could be particularly effective if linked to energy programs such as First Nations housing retrofits.

Within the energy sector, network businesses have higher apprenticeship intakes including First Nations than generators which could be a basis for expansion. Gaps in regional VET provision were identified as a major issue by workforce providers in our fieldwork as in past studies (Briggs et. al. 2022).

Another model highlighted as working well by some training stakeholders was the use of 'taste tester' short training offerings for students, using community service obligation funding to run half-day or full-day offerings with a site visit.

Increasing First Nations trainers and educators is a crucial lever for increasing course completions. First Nations trainers will be better able to engage First Nations students, embed cultural perspectives into the curriculum and speak community languages. Our stakeholder research – as with other renewable energy workforce studies – also highlighted there are major gaps in training capacity in regional areas.

ACTIONS

- **6.1 Allocate funding to develop and co-design First Nations pre-apprenticeship programs for key clean energy occupations such as electricians, mechanical fitters, HVAC Technicians, welders and plumbers**
- **6.2 Investigate an equivalent program to Career Trackers for school-to-VET pathways for clean energy**
- **6.3 Investigate expansion of First Nations apprenticeship programs within electricity networks**
- **6.4 Allocate funding for resourcing of regional VET facilities and courses**
- **6.5 Provide subsidies to employers to engage First Nations apprentices and trainees linked to completions**
- **6.6 Governments, training bodies, clean energy industry representatives and First Nations representatives to develop a strategy to increase the number of First Nations trainers in the clean energy sector over time.**

7. Outreach engagement with First Nations students via Regional University Study Hubs

RATIONALE

There is a gap in access to education in regional, rural, and remote communities, especially for First Nations. Regional University Study Hubs (formerly Regional University Centres) play an important role in overcoming physical barriers to tertiary education by connecting students into study hubs nationwide.

DESCRIPTION

Recent Australian Government investment in Regional University Study Hubs will see the number of hubs located in or near REZ regions grow, particularly in NSW. The network of Regional University Study Hubs could play an important role in outreach campaigns and engagement to complement other initiatives, such hosting events in partnership with the clean energy industry, developing information resources on study options and employment opportunities and using First Nation testimonials to reach and inspire students.

Regional University Study Hubs can also play a role in remote communities. The Arnhem Land Progress Aboriginal (ALPA) Corporation runs a RUC across three sites in Arnhem Land in the Northern Territory, supporting 80 students to complete VET studies (RUCN, 2023). There is the potential for this model and its success factors – combining 1:1 academic support, administrative support, coordination of communication between employers, students, and institutions – to be applied to the clean energy sector.

ACTIONS

7.1 Develop an outreach and engagement program via Regional University Study Hubs to complement the First Nations Clean Energy Cadetship Program

8. Pre-employment programs to create pathways into entry-level jobs in solar farms

RATIONALE

Solar farms offer the opportunity to increase employment for First Nations Australians who are unemployed or out of the labour force because of the volume of entry-level jobs in labouring, cleaning, traffic management that require only short-term training. Recycling facilities will also offer entry-level jobs opportunities.

There are isolated examples of good practice which have created jobs for First Nations people with high social benefits in communities with high levels of unemployment. However, a coordinated program alongside mandatory employment targets is required to make this a standard feature of solar farm construction.

DESCRIPTION

The importance of pre-employment training and support services to address barriers (e.g. licences, soft-skills, transport) and holistic support for First Nations job-seekers is well-established in past reviews and highlighted by employment service providers in our fieldwork. It is important programs commence ahead of projects to ensure there is a pipeline of candidates at the right time.

Supporting the transition for people who have been out of the labour force for a long time (or never worked) requires 'wrap-around' services that address circumstances that can prevent individuals getting and keeping jobs (eg. housing, family, transport etc). Support services throughout employment are important to maximise the likelihood a person will stay in the job once they have their 'foot in the door'. It is also important that support continues as the project employment approaches completion to ensure solar farm employment is a bridge to further training or employment, either with the current employer or another employer if there is no work available.

There is an existing network of programs for pre-employment programs and employment service providers such as Workforce Australia (over 90,000 First Nations Australians participate in this program which provides pre-employment services) and First Nations organisations.

ACTIONS

- **8.1 State governments to develop a pre-employment program to create a pipeline of First Nations applicants in REZs with concentrations of solar farms**
- **8.2 State governments to investigate opportunities to develop pre-employment programs for First Nations communities for recycling facilities**
- **8.3 Federal government to investigate disincentives to work for First Nations job-seekers due to conflicts with other forms of income support**

9. Funding Group Training, focussing on the REZs and First Nations housing retrofits

RATIONALE

Group Training Organisations (GTO) can facilitate increased use of apprentices within the renewable energy sector. Construction project lengths are shorter than apprenticeships and in the case of electrical apprentices they must complete domestic units. Some organisations can place apprentices in other projects but firms are often reluctant to take on apprentices. There is evidence of higher completions for GTO apprentices (Jobs Skills Australia 2023).

Whilst the circumstances of renewable energy would appear to be conducive to GTO's, they do not currently play a significant role. Industry often claims that GTO's are hard to access. Funding certainty and market volumes have been a barrier to the expansion of GTO's into new sectors and regions like renewable energy.

DESCRIPTION

Industry demand in the REZs could be pooled through a tender to support companies meeting apprenticeship and First Nations targets. A tender for GTOs would create funding certainty and reduce the transaction costs for industry. The tender could be for a single GTO or multiple GTOs in different locations across a REZ.

In First Nations housing, Group Training in combination with other programs to create the supply of students would also facilitate and enable apprenticeship opportunities for First Nations school-leavers. Blended apprenticeships across First Nations housing retrofits and large-scale renewable energy could be trialled.

The quality of GTO's is sometimes reported to be variable, especially where they merge into labour hire firms. One training stakeholder observed 'mob don't like GTO's'. Investigation should include mechanisms to ensure quality, options for First Nations GTOs and factors that could address concerns from First Nations apprentices.

ACTIONS

9.1 State Government agencies to investigate tenders for GTOs as part of the delivery of REZs and First Nations housing retrofits.

10. Fund an Industry support program to enable achievement of employment and training targets

RATIONALE

Even with measures to increase the supply of First Nations Australians and lift industry commitments, it is likely to require facilitation to implement change in practice. Renewable energy firms are under enormous time pressures to deliver projects and are experiencing skill shortages. The Clean Energy Council has acknowledged a 'persistent disconnection' between the renewables industry and training bodies in Australia (Jobs Skills Australia 2023). An industry support program is required to enable the industry to meet targets.

DESCRIPTION

The NSW Infrastructure Skills Legacy Program is a good model of a program that provides industry support alongside employment and training targets. It is mandatory for all NSW government infrastructure projects and includes:

- skills, training and diversity targets based on contract value (e.g. 20% of the trades workforce are required to be apprentices, 20% of workforce must be learning workers, 2% of the trades workforce must be women)
- Mandatory application of the Aboriginal procurement policy which includes 1.5% First Nations business participation and employment.
- A key element of the program is embedding specialist officers within projects to facilitate recruitment, sourcing of training and other services towards achievement of diversity targets. Embedding project officers increases the capacity of businesses to source candidates and training.

To date, projects have exceeded most targets including an average of 26% apprentices and 7% of the workforces Aboriginal (NSW Department of Education 2024).

ACTIONS

10.1 The Federal Government to provide funding for the development of an industry support program, including a network of specialist officers to be embedded in projects to support delivery of employment and training targets.

11. Building the capacity and coordination of First Nations organisations, networks and businesses

RATIONALE

Both industry and First Nations stakeholders interviewed for this project highlighted a lack of resources and capacity amongst First Nations organisations as an issue in a variety of contexts including fielding enquiries, planning for how energy can enable employment, and building a pipeline of First Nations workers. Stakeholder feedback also consistently highlighted issues with resourcing and capacity for First Nations businesses to win tenders for work.

Other stakeholders highlighted the importance for First Nations communities to learn from each other about models that have been implemented by other First Nations communities through knowledge sharing networks. It was observed that communities located in the same region may not collaborate effectively, and can develop competitive relationships due to scarce resources. Major projects can divide rather than unite communities. Consequently, there is an issue with both capacity and coordination of First Nations organisations and communities.

DESCRIPTION

Funding is required to increase the capacity of First Nations organisations to engage effectively with the clean energy sector, governments and other actors in the clean energy transition.

Funding for capacity building amongst First Nations organisations is required, including foundational steps to project participation for communities, businesses and individuals e.g. community governance and representation, business establishment. First Nations groups need to be able to access specialist advice, either through funding that can enable them to directly engage specialist staff which can build internal capacity or access third-parties where required.

It's important to support and establish networks for First Nations communities to share knowledge and experiences at local, regional, state and national levels. Knowledge sharing can enhance the confidence of First Nations communities and provide models that can be emulated.

The National Indigenous Participation Policy has been proven to deliver results, but in this new field complementary initiatives are required to develop the capacity of First Nations businesses to tender and support the pipeline of new First Nations businesses.

ACTIONS

- **11.1 The Federal Government to fund a network for knowledge sharing between First Nations organisations on clean energy, including good practice employment and training outcomes for First Nations people in the renewables sector**
- **11.2 The Federal Government to increase funding to develop the capacity of First Nations businesses to tender for clean energy contracts**
- **11.3 State Governments to expand funding for apprenticeship-to-business training to increase the formation of First Nations small businesses and contracting**
- **11.4 State and Federal governments to provide funding for First Nations groups to access specialist advice, directly through hiring specialist staff or independent third-party advice where necessary.**

12. Building cultural competence in the renewable energy sector

RATIONALE

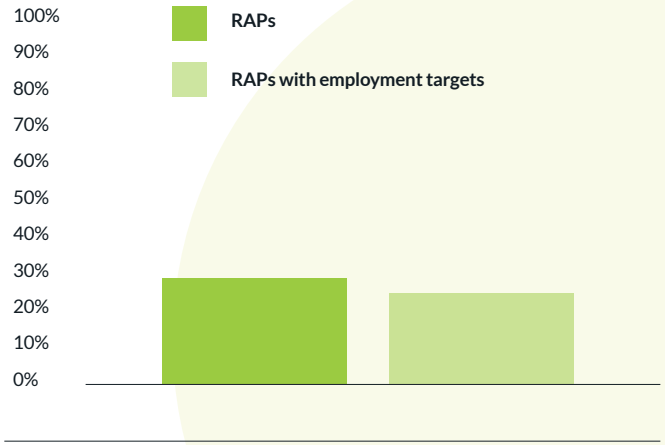
A shift in industry culture is fundamental to materially improving workforce outcomes for First Nations people and communities. Our research found only 1-in-4 solar and wind companies listed in AEMO's project pipeline has a Reconciliation Action Plan (RAP) and 1-in-5 has an employment target within the RAP.

Improving engagement with First Nations communities has been identified as a priority by clean energy leaders – but there was very consistent feedback from our stakeholder interviews that engagement is limited at project level and by contractors. Consistent with the findings in the Clean Energy Council's (2024) best practice guide to engaging with First Nations communities, stakeholders reported the industry too often lacks experience and understanding of First Nations people. As with the CEC guide, our engagement also commonly found frustration with the renewable industry amongst First Nations communities and low faith in the sector.

Whilst this is much broader than employment and skills, cultural change is required to create culturally safe workplaces and organisations that provide career paths for First Nations Australians. Recruitment and training is one part of the challenge – culturally safe workplaces are essential to improve employee retention and performance.

More fundamentally, cultural change is essential to fostering the will or conviction that will motivate organisations and individuals. Industry and organisational cultural change must be seriously considered and pursued to achieve material and long-lasting First Nations employment outcomes in the clean energy industry.

Figure 1: Coverage of Reconciliation Action Plans, Renewable Energy Developers



Note: Internet searches were conducted for RAPs amongst 49 solar and wind firms listed in AEMO's project pipeline (AEMO 2024). Where RAPs were found, they were checked for employment targets.

DESCRIPTION

A number of pathways should be considered:

- Whilst RAPs don't necessarily lead to change, organisational targets and commitments can create a framework and be a catalyst for organisational change. Encouraging RAPs or equivalent mechanisms with aspirational targets (e.g impacts on a Closing the Gap target within a specific community) is one pathway to change
- Incentivise cultural responsiveness and competency for clean energy organisations through tender criteria (e.g. mandating cultural training, evaluating engagement with First Nations groups).
- Funding for activities to improve cultural competency such as workplace training to create culturally safe workplaces.
- Develop and implement accountability mechanisms for First Nations employment targets with developers and principal contractors, with responsibility for subcontractors.

ACTIONS

12.1 Encourage RAPs and equivalent mechanisms within the clean energy sector which set organisational targets on First Nations outcomes

12.2 Incorporate incentives and requirements for cultural competency in renewable energy procurement

12.3 Establish a national knowledge sharing network with participants from the clean energy industry, other relevant industries and community representatives to facilitate coordination and capacity-building.

Summary of Recommendations and Actions

Table 1: Summary of Recommendations and Actions

	CATEGORY	AREA	ACTIONS
1	DEMAND-SIDE	Incorporate First Nations employment and training targets into the Capacity Investment Scheme	1.1 Mandate compliance with the national Indigenous Procurement Policy in the CIS, State Government tenders and include incentives in criteria for higher First Nations employment and training outcomes 1.2 Incorporate the Australian Skills Guarantee within criteria in the CIS for generation, storage and transmission procurement 1.3 Require states to set First Nations employment targets for solar farms in the REZs through Renewable Energy Transformation Agreements being negotiated for the CIS 1.4 Provide funding for the states to implement a support program based on NSW Infrastructure Legacy Skills Program to assist companies meet targets.
2		Coordinated industry program for First Nations apprentices in wind farm maintenance	2.1 The Federal Government broker and coordinate consultation between wind OEMs, state governments and First Nations stakeholders to co-design a coordinated scheme for wind farm mechanical apprenticeships and identify pilot regions 2.2 Wind OEM's develop employment and apprenticeship targets for First Nations students 2.3 Funding be provided through the Indigenous Employment Skills Program for a program coordinator and employment and training providers to identify First Nations students and provide wrap-around support services during the duration of the pilot
3		Integrate First Nations employment and training targets and initiatives into housing retrofit, diesel replacement and micro-grid programs	3.1 Employment and training targets be applied and implemented in the delivery of First Nations housing retrofit programs 3.2 Funding be provided for complementary programs, including pre-apprenticeship programs, funding for Group Training Organisations (see action 9) and an industry support program with embedded project officers to support achievement of targets (see action 10) 3.3 ARENA and CEFC to review procurement guidelines to incorporate employment and training targets for First Nations programs 3.4 Investigate funding and programs for utilities to increase employment and training for First Nations people within micro-grid and remote community energy management
4		'Career Trackers for Clean Energy': Industry Commitments to First Nations cadetships	4.1 Federal Government to fund and lead co-design of a First Nations Clean Energy Cadetship Program with energy industry and professional associations, cadetship First Nations representatives and universities 4.2 Energy industry and professional associations to lead a recruitment drive for members to sign 10-year commitments to a First Nations Clean Energy Cadetship program

Summary of Recommendations and Actions

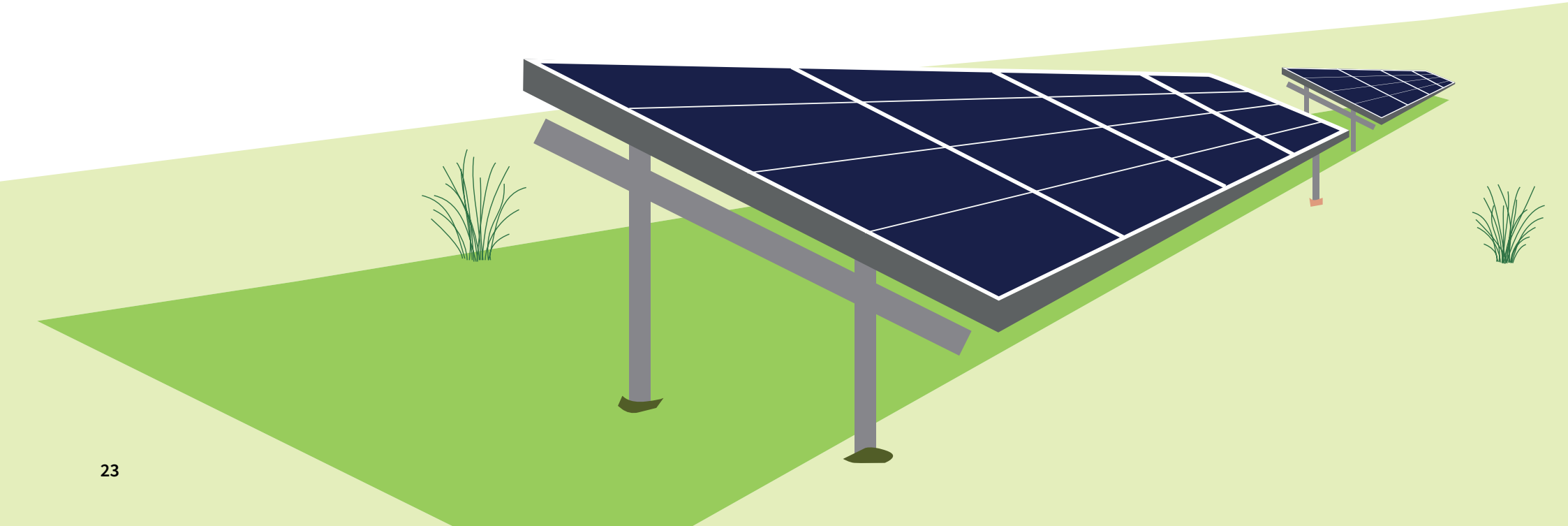
Table 1 (continued): Summary of Recommendations and Actions

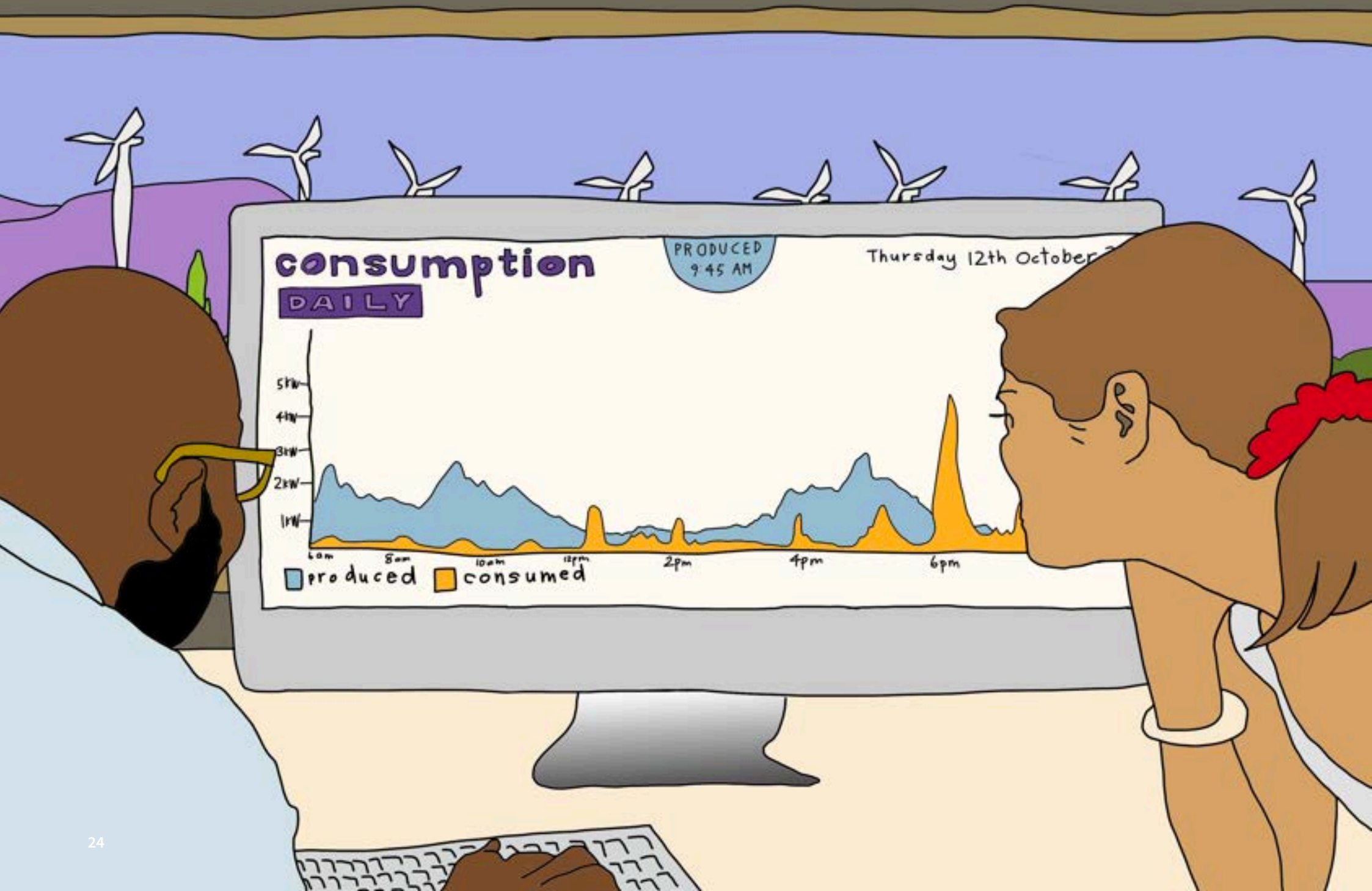
	CATEGORY	AREA	ACTIONS
5	SUPPLY-SIDE	Clean energy careers for First Nations school students	5.1 Form jurisdictional working groups comprising clean energy industry, State Department of Education representatives and First Nations representatives to develop First Nations clean energy school programs. 5.2 Develop an information program and outreach campaign on clean energy, career opportunities and pathways which includes tailored First Nations activities
6		School to VET transitions: Traineeships and Apprenticeships	6.1 Allocate funding to develop and co-design First Nations pre-apprenticeship programs for key clean energy occupations such as electricians, mechanical fitters, HVAC Technicians, welders and plumbers 6.2 Investigate an equivalent program to Career Trackers for school-to-VET pathways for clean energy 6.3 Investigate the expansion of First Nations apprenticeship programs within electricity networks 6.4 Allocate funding for resourcing of regional VET facilities and courses 6.5 Provide subsidies to employers to engage First Nations apprentices and trainees linked to completions. 6.6 Governments, training bodies, clean energy industry representatives and First Nations representatives to develop a strategy to increase the number of First Nations trainers in the clean energy sector over time.
7		Outreach and engagement with First Nations communities via Regional University Hubs	7.1 Develop an outreach and engagement program via Regional University Study Hubs to complement the First Nations Clean Energy Cadetship Program
8		Pre-employment programs to create pathways into entry-level jobs in solar farms	8.4 State governments to develop a pre-employment program to create a pipeline of First Nations applicants in REZs with concentrations of solar farms jobs in solar farms 8.5 State governments to investigate opportunities to develop pre-employment programs for First Nations communities for recycling facilities 8.6 Federal government to investigate disincentives to work for First Nations job-seekers due to interactions with other forms of income support
9	ENABLING	Funding Group Training, focussing on the REZs and First Nations housing retrofits	9.1 State Government agencies to investigate tenders for GTOs as part of the delivery of REZs and First Nations housing retrofits
10		Fund an Industry support program to enable achievement of employment and training targets	10.1 The Federal Government to provide funding for the development of an industry support program, including a network of specialist officers to be embedded in projects to support delivery of employment and training targets

Summary of Recommendations and Actions

Table 1 (continued): Summary of Recommendations and Actions

	CATEGORY	AREA	ACTIONS
11	CROSS-CUTTING	Building the Capacity of First Nations Organisations, Networks and Businesses	11.1 The Federal Government to fund a network for knowledge sharing between First Nations organisations on clean energy, including good practice employment and training outcomes 11.2 The Federal Government to increase funding to support First Nations businesses tender for clean energy contracts 11.3 State Governments to expand funding for apprenticeship-to-business training to increase the formation of First Nations small businesses and contracting 11.4 State and Federal governments to provide funding for First Nations groups to access specialist advice, directly through hiring specialist staff or independent third-party advice where necessary.
12		Building cultural competence in the renewable energy sector	12.1 Encourage RAPs and equivalent mechanisms within the clean energy sector which set organisational targets on First Nations outcomes 12.2 Incorporate incentives and requirements for cultural competency in renewable energy procurement. 12.3 Establish a national knowledge sharing network with participants from the clean energy industry, other relevant industries and community representatives to facilitate coordination and capacity-building




consumption
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2kW
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12pm
2pm
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6pm
produced
consumed

FIRST NATIONS
CLEAN ENERGY NETWORK

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Acronyms

Table 2: Acronyms

AEMO	Australian Energy Market Operator
ALPA	Arnhem Land Progress Aboriginal Corporation
ARENA	Australian Renewable Energy Agency
BAU	Business as usual
CDEP	Community Development Employment Program
CEFC	Clean Energy Finance Corporation
CIS	Capacity Investment Scheme
GTO	Group Training Organisation
HVAC	Heating, ventilation and air conditioning
IEA	International Energy Agency
ISEP	Indigenous Skills Employment Program
NCVER	National Centre for Vocational Education Research
NIAA	National Indigenous Australians Agency
OEM	Original Equipment Manufacturer
RAP	Reconciliation Action Plan
REZs	Renewable Energy Zones
VET	Vocational Education and Training

Introduction

One of the factors that will determine whether the energy transition improves the lives of First Nations Australians is whether there is increased access to training, employment and career paths in clean energy. At this stage, the number of First Nations people working in the clean energy sector is very low.

A research consortium was commissioned by the First Nations Clean Energy Network to support the development of a jobs and skills strategy for First Nations employment in Clean Energy.

The key questions for the study were:

- What are the key employment opportunities, training and career pathways in clean energy?
- What are the employment expectations of First Nations peoples and how can the clean energy industry meet them?
- What are the barriers and opportunities to increasing First Nations participation in the clean energy sector?
- What are the key policy or program opportunities for increasing First Nations participation in the clean energy sector?

The scope of the study is clean energy supply (generation, storage, transmission) and demand-side employment (e.g. energy efficiency, electrification of homes etc). Whilst mining of critical minerals for clean energy technologies could become a source of employment for First Nations, it is outside the scope of this study.

Report Structure

This report has four sections:

1. **First Nations employment and training: the context for clean energy.** Based on a desktop review of past studies, reviews and data, First Nations employment and training is profiled to understand the context for the clean energy sector. Lessons from past employment and training programs in other sectors are identified.
2. **The scope for increasing First Nations employment in the Renewable Energy Zones.** Combining employment projections modelling and regional labour market and demographic analysis, the potential for First Nations employment in renewable energy is analysed to understand the potential and inform target-setting in the Renewable Energy Zones. The volume of First Nations people in adjacent occupations, schools and unemployment/out of labour force is analysed relative to a 10%, 5% and 1.5% target.
3. **Remote areas and industrial regions in transition.** Based on insights from stakeholder forums, this section analyses the barriers and opportunities for First Nations in clean energy in remote areas and industrial regions in transition (e.g. Gladstone).
4. **How to increase First Nations employment and training.** A set of actions are recommended for implementation by governments, First Nations organisations, the clean energy industry, and employment and training bodies.

Employment in Clean Energy - First Nations Voices

This is a selection of quotes from First Nations people working in different roles across government, training, representative bodies, industry and community.

'The clean energy sector, one thing I know from mob, is they don't know much about it.' (Government, economic development).

'There's a lot of goodwill – and badwill – how do you translate that and do it at scale?.' (First Nations representative).

'It's about the ability to work on country and close proximity to where one lives. The opportunity to work for an industry that leaves a positive legacy for future generations and align them with jobs and careers within the sector to represent those three aspects.' (Government, economic development).

'There's lots of consultation that doesn't go anywhere – talk to tier 1, then it goes to the next contractor, project starts in 2 weeks, misses boat for jobs … Too much consultation without outcomes - tick a box, met black fellas, walked away. Until there are targets in place nothing is going to change.' (Land Council, CEO)

'Literacy and numeracy is a big one (barrier: 40% of our mob don't have any adequate literacy and numeracy skills, especially when you're looking at electro-technology, engineering etc.' (training specialist).

'we could be sitting on employment panels and co-designing … we have cultural knowledge, industry has infrastructure knowledge – bring them together. You're on our land, our time and need to work with us … as community members we've sat around the table for years and nothing happens. There's burnout. It takes a mental and cultural toll. Our mob say why aren't we getting jobs when you're sitting around the table. You need to think about the mental and cultural toll it takes. I'm absolutely sick of it. ' (Community economic development).

'I know for a fact in the clean energy industry they're really insular in the way they go about building and designing projects … They like to recruit staff themselves, 100% in-house, but that doesn't help with outreach to Aboriginal communities, because they don't know about the opportunities in clean energy…. Go to the AES and say we want 20 workers ' (First Nations representative).

'Genuine employers that want to actually employ aboriginal people – lots have RAPs but when it comes to the crunch they won't commit to placing people in jobs. They need to be incentivised, shown the benefit of employing aboriginal people.' (First Nations, training)

'What I've seen in most industries is most Indigenous people come in at entry level and will stay there unless there is guidance and support – there is a lot here at entry level and traineeships. More in the customer service area.' (energy network).

1. First Nations Employment and Training: The Context for Clean Energy

Reflecting deep structural sources of disadvantage, First Nations Australians have lower rates of employment, qualifications, earnings and quality of employment than the non-indigenous population. There are major data gaps for clean energy in general and major reviews of First Nations employment have routinely noted poor data quality (NCVER 2017a; Dockery 2007; Jobs Skills Australia 2022: 4).

Nonetheless, there have been some major studies and reviews in recent years. Jobs Skills Australia has profiled the clean energy workforce (2023) and the First Nations workforce (2022), the National Centre for Vocational Education Research has profiled First Nations training participation (2023), and the Productivity Commission has published reviews into Overcoming Indigenous Disadvantage (2020) and Closing the Gap targets (2023). A major review of the Indigenous Employment Skills Program ('the IESP review') including 53 roundtables and 62 written submissions was undertaken in 2021 (National Indigenous Australians Agency 2021 a & b).

This report highlights some of the key implications of these reviews for First Nations employment in clean energy.

The gap in employment rates for First Nations Australians has not narrowed for three decades

Employment rates for First Nations are much lower than non-Indigenous Australians – just over half of First Nations are employed compared to the Australian population-wide rate of 64.5% based on the 2021 census (Jobs Skills Australia 2023). Across all sectors, First Nations make up 1.9% of the workforce (and 3.8% of the population).

Jobs Skills Australia (2022) highlights some important variations in employment rates amongst First Nations Australians across different population segments:

- Employment rates for First Nations women are higher than men across all age-groups
- The gap in employment rates is relatively stable across age-groups, albeit marginally lower for younger people (20%) and highest for people aged 25 – 34 (24%)
- The employment gap is notably lower for young women (17 %) and especially women aged 25-34 (19%) relative to men aged 25-34 (e.g. 30%) – which highlights men falling out or failing to enter the workforce as they move into adulthood
- Employment rates decline from the cities (74%) to regional areas (68%) to 'remote' (60%) and 'very remote' (51%) areas.

Progress is being made against most of the education and training *Close the Gap* Targets such as the proportion of First Nations youth who are completing year 12 (Target 5) and completed at least a Certificate III qualification (Target 6). Notably, NAPLAN testing still finds a persistent gap in reading and numeracy between First Nations and non-indigenous students (Productivity Commission 2020: 4.4.1).

However, as the Australian Government's employment White Paper noted: 'the employment rate of Aboriginal and Torres Strait Islander people continues to significantly lag that of non-indigenous people, and the gap has not closed notably over the past 30 years' (Commonwealth of Australia 2023: Executive Summary).

The failure to close the gap in employment rates stretching over several decades is testimony to the structural challenges and the ineffectiveness of policy. Windley's assessment (2017: 3) still remains largely valid:

> *'What is questionable is whether the qualifications gained are improving employability, boosting employment outcomes and reducing employment disparity: while the gap is closing in educational attainment, it is not closing in regards to labour market participation'.*

First Nations participation in Vocational Education and Training is high – but often in lower-level qualifications

First Nations participation in the vocational education and training (VET) system highlights both challenges and opportunities for clean energy.

- **High participation in VET:** First Nations participation in universities is lower than the population share (around 2%) but higher in the VET system – participation in apprenticeships is double the wider population share (7% vs 3.2%) (Commonwealth Government 2022).
- **Lower course completions:** only around 1/3 First Nations students complete apprenticeships relative to 1/2 of non-indigenous students (Productivity Commission, 2022). Jobs Skills Australia (2022: 2) notes 'qualitative research into the reasons for this gap is needed. Factors such as structural problems, access to opportunities and employer cultural competence may be at play.'
- **Low-level qualifications:** The qualifications earnt by First Nations Australians are disproportionately lower level (Cert 2) and highly concentrated in service-sector and lower-skilled occupations (e.g. retail, administration) - which have lower employment rates, lower pay and conditions.

The Closing the Gap goal is to increase the proportion of First Nations people who complete at least a Certificate III qualification from 42.3% to 70% by 2030-31. Jobs Skills Australia (2023:28) concludes bridging courses or alternative pathways to move First Nations people into higher qualifications is one of the key priorities for improving employment outcomes.

Most First Nations qualifications are not related to clean energy – although there has been some recent growth

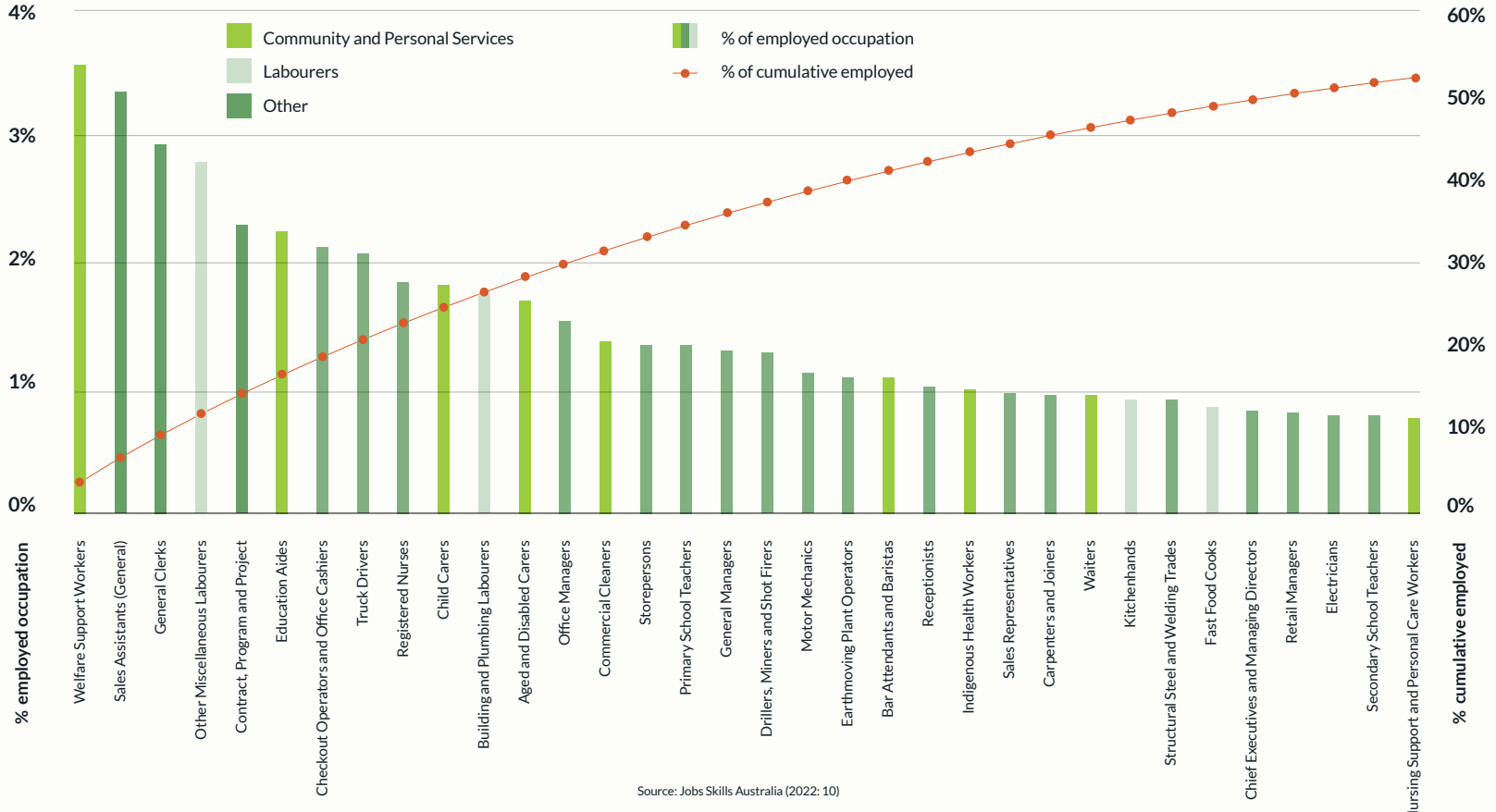
The most common First Nations qualifications are generally in areas that do not feed into clean energy including society and culture, health, food, hospitality and food services, and education (Jobs Skills Australia 2023). There are some notable exceptions such as engineering and related technologies, and management and commerce qualifications.

Some of the more popular apprenticeships for First Nations students in recent years are in areas relevant for clean energy, such as construction trades (1st), automotive and engineering trades (4th) and electrotechnology and telecommunications (10th), which could signal higher supply in coming years.

Low levels of First Nations people are in occupations employed in clean energy

Consequently, Jobs Skills Australia (2022: 10) has highlighted the level of employment of First Nations people in occupations used by clean energy is low (Figure 2). Few of the major occupations for First Nations people - the services sector, care-work, administrative jobs and education - are directly relevant for clean energy.

Figure 2: Cumulative employment share for the 30 highest First Nations employing occupations



Source: Jobs Skills Australia (2022: 10)

However, First Nations Australians are now equally likely to be employed in a trade or technician as the non-Indigenous population (12%), with motor mechanic the most common trade for First Nations Australians.

Jobs Skills Australia (2023) observes some pockets of growth such as plumbers in cities and older First Nations people as electricians. After community and personal services, labourers are the second most common occupational group – some of which have relevance for clean energy (e.g. building and plumbing labourers). There is also relatively high employment in some machine and driver occupations (e.g. truck drivers, earthmoving plant operators) used in renewable energy.

First Nations employment and training programs have a checkered history

Various First Nations employment and training programs have been implemented over the past decades to try and improve employment outcomes for First Nations Australians, including the National Employment Strategy for Aboriginals (1977), the Aboriginal Employment Development Policy (1987), the Indigenous Employment Policy (1999), the Indigenous Economic Development Strategy (2005), and more recently, the Closing the Gap framework.

Some of the key learnings from major reviews and studies relevant for clean energy are summarised below.

'Training for trainings sake': training programs need to connect to employment demand or job commitments

The Forrest Review (2014) criticised too many First Nations programs for undertaking 'training for training's sake' - leading to First Nations people accumulating 'irrelevant' Certificate I and II qualifications which did little to improve their employment prospects and were a 'waste' of public funding' (NCVER 2017a).

In the fieldwork undertaken for this project, the criticism of 'training for training sake' was regularly voiced by First Nations organisations and people working in employment services and government agencies – the history has created a deep scepticism about training programs which the clean energy sector need to be aware of and provide and deliver on job commitments.

Another implication is there could be an important role for 'bridging courses' to help First Nations Australians with lower qualifications attain higher qualifications that will actually support employment (Jobs Skills Australia 2023: 28).

First Nations employment programs have often delivered short-term or low-skill employment

The primary focus of employment service programs has been to get unemployed First Nations Australians into jobs with a key performance indicator of 26-weeks of continuous employment. It is not surprising in that context that much of the jobs are entry-level and gains in on-going employment have been mixed, noting data limitations have often made it difficult to evaluate results (NCVER 2017a; Dockery 2007; Jobs Skills Australia 2022).

For the past 20 years, the mining and resource sector has implemented various programs and initiatives to increase First Nations employment at different skill levels. However, the primary impact has been to increase employment in lower-level occupations such as truck drivers and machine operators (men) and administrative, cleaning and kitchen work (women). Some of the larger mining companies have also introduced leadership development programs with limited results to date. No formal evaluations have been found beyond comments that it has been difficult for the mining sector to identify candidates (Jobs Skills Australia 2023: 229-230).

First Nations organisations generally deliver better results – but there is a 'disconnect' with clean energy

For decades the major First Nations employment program was the Community Development Employment Program, accounting for as many as two-thirds of First Nations employment at its peak. CDEP was an 'Indigenous-specific employment program'. It was assessed to have increased employment opportunities, but has also been associated with low-hours, low-income

and low rates of transition into mainstream employment – and described as a 'poverty trap' by Marcia Langton (Dockery 2007: 24). After its repeal in 2015, there was a successor targeted at remote areas where there are more limited employment options (the CDP - Community Development Program) but the approach subsequently was to use 'mainstream' employment programs for First Nations jobseekers (NCVER 2017a).

Whilst Indigenous-specific employment programs are generally not considered to have been very effective, there is strong agreement that programs with high levels of First Nations community representation and influence are more effective.

One of the priority reforms in Closing the Gap is to strengthen the community controlled sector. There is strong evidence that First Nations community organisations deliver better results in service delivery across a range of fields due to greater cultural expertise and connections to community. The ISEP review noted there was an overwhelming response that Aboriginal controlled organisations need to be 'central co-designers and partners' in delivery of training, education and employment services.

The Productivity Commission notes the shift in funding and decision-making to Aboriginal Community Controlled Organisations (ACCO's) has been 'patchy' (2023: 41). Funding arrangements need to provide certainty to enable strategic planning, full cost-recovery for holistic services (which can be more expensive), and investment in infrastructure (2023: 42).

Procurement requirements have been an effective lever for improving employment through First Nations businesses

One of the successful policy interventions has been the use of government procurement requirements to increase demand for First Nations businesses and employees over time.

In a review of progress against the Closing the Gap targets it was noted: *'Since the National Agreement came into effect in July 2020, there has been a marked increase in the number and value of contracts awarded to First Nations businesses, representing $2.4 billion … over 41,000 contracts with a total value of over $6.2 billion from over 2,800 First Nations businesses. Markedly, 314 contracts across the Commonwealth, worth $19 billion, have First Nations employment and supply use targets attached'* (Cth, Closing the Gap: 30).

Whilst the procurement targets and requirements do not specify First Nations employees,

First Nations businesses employ higher numbers of First Nations workers with higher retention rates: mechanisms for increasing First Nations businesses are therefore also an important pathway for increasing employment.

Some factors which increase the probability of increased employment and workforce retention have been identified – notably cultural safety and competency

The Productivity Commission (2020: 129) identified three key strategies for improving First Nations employment rates:

1. Changing employment practices and workplaces to be more conducive to employing and retaining First Nations Australians;
2. Encouraging the growth of First Nations owned businesses and service providers;
3. Quality education to gain the skills and knowledge for employment.

Other studies have identified factors for increasing First Nations employee retention which include:

- Ongoing mentoring and support beyond the 26-week period of employment often used as a benchmark for evaluating First Nations employment programs. There can be a range of structural barriers to employment - including health, access to transport, access to childcare, family violence – which require ongoing support to navigate (Dinku & Hunt 2019).
- Flexible work arrangements to allow First Nations employees to meet their work, family and/or community obligations.
- Support for the families of First Nations employees.
- Dealing with racism in the workplace through initiatives that address the broader workplaces culture (Giddy et. al. 2009a & b; Crawford & Biddle 2017a & b; Dinku & Hunt 2019a & b; Parmenter & Barnes 2021).

One of the key recommendations of NIAA's review of the ISEP was 'building cultural safety in the workplace' as 'critical' to increased training and sustained jobs and careers.

'Participants agreed that there is a general lack of cultural safety in workplaces nationally. Employers do not yet understand cultural safety, the cultural obligations of Indigenous employees or the skills they bring to the workplace' (National Indigenous Australian Agency 2021b: 28).

The ISEP review found there needs to be 'positive obligations' on employers and training and engagement with First Nations organisations to lift cultural competency and safety.

Conclusion

The Productivity Commission (2023: 2) has noted that Governments are not currently delivering on commitments to Closing the Gap:

'Progress in implementing the Agreement's Priority Reforms has, for the most part, been weak and reflects a business-as-usual approach to implementing policies and programs that affect the lives of Aboriginal and Torres Strait Islander people. Current implementation raises questions about whether governments have fully grasped the scale of change required to their systems, operations and ways of working to deliver the unprecedented shift they have committed to'.

Whilst there has been some progress towards meeting Close the Gap targets in education and training, there has been a long stagnation in improving employment outcomes for First Nations Australians that fits this pattern.

Some of the learnings from our review for clean energy on how to break from the long stagnation include:

- Participation in the VET system is high – but initiatives are required to increase completion rates and to increase participation in higher-level qualifications from Certificate III and upwards.
- Participation in the university system is low with poor completion rates.
- First Nations qualifications and participation in occupations used by clean energy is relatively low, but participation is increasing in some areas like engineering, management and construction trades.
- One of the more effective policy levers has been the use of procurement requirements for First Nations businesses – measures that increase demand and job commitments are important as a catalyst for change.
- Targeted labour market programs complemented by initiatives that address structural barriers to employment will be required – especially to break the cycle of programs that only produce temporary employment in low-skill jobs.
- Increasing capacity and participation by First Nations organisations is likely to be a key part of improving outcomes.
- Ensuring the clean energy industry has culturally safe workplaces is required for sustainable employment for First Nations Australians.

2. Renewable Energy Zones: What is the Potential for First Nations Employment?

The Renewable Energy Zones (REZs) are the key sites for large-scale renewable energy along the Eastern States of Australia; Queensland, Victoria and New South Wales each have programs to coordinate new transmission with renewable energy generation and storage within REZs. Consequently, the way in which the REZs are developed will have a significant impact on First Nations employment and training in renewable energy.

Our analysis of the potential for First Nations employment in the REZs is divided into two sections. In the first section, our analysis begins with an employment and demographic profile of First Nations Australians in the REZs. In the second section, the employment and demographic profile is combined with employment projections for the REZs to analyse the potential for First Nations employment to reach benchmark targets in REZs across South Australia, Victoria, New South Wales and Queensland REZs.

The employment projections for the REZs (2030 and the peak year within each REZ) are derived from estimates by ISF based on the Step Change scenario in AEMO's Integrated Systems Plan (Rutovitz et. al. 2022). Our analysis investigates the potential for First Nations employment to reach target shares of 1.5%, 5%, and 10% of renewable energy employment within a group of REZs:

- 1.5% is a common benchmark in infrastructure tenders for First Nations employment
- 10% was nominated as a 'stretch goal' in the tender guidelines for the NSW auctions for Long-Term Energy Supply Agreements (AEMO Services 2022: 67)
- 5% is a mid-point between these minimum and stretch goals.

To assess the supply of First Nations people to reach these demand benchmarks, there are three steps:

Step 1: Estimating the First Nations share of employment in occupations aligned to renewable energy to understand the size of the current workforce in adjacent jobs that could work in renewable energy.

Step 2: Estimating the size of First Nations people that could work in renewable energy in the future – including school students, the unemployed, and those not in the labour force.

Step 3: Integrating these sources of labour supply and comparing them with the employment volumes that would be required to achieve 1.5%, 5% or 10%.

The aim of this analysis is not to recommend specific targets – this is a policy choice that needs to be made by First Nations organisations, the industry and governments – but to inform discussion about what targets are realistic and what would be required to achieve them.

One of the key implications is that programs to attract and train First Nations school leavers and those who are unemployed or not in the labour force would be required – which will take investment of time and money.

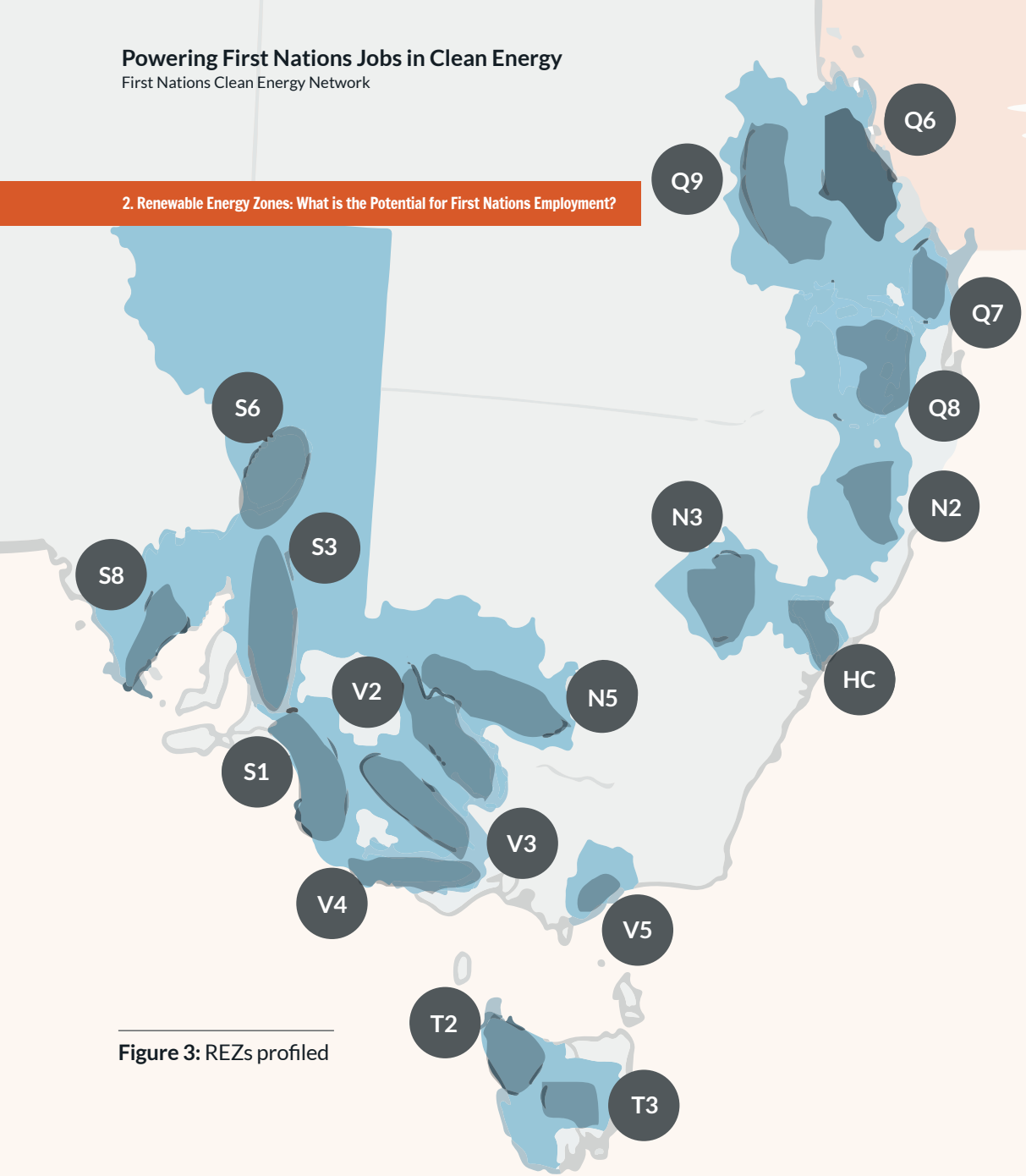


Figure 3: REZs profiled

First Nations Australians and the REZs: A Brief Profile

Some of the key demographic and employment characteristics of First Nations residents across a selection of major REZs in South Australia, Victoria, New South Wales and Queensland are profiled (see Figure 3 for REZs).[1]

First Nations population in the REZs is higher than average – and peaks in the key NSW REZs

REZs vary in the size of their populations, and therefore access to workforce. On average, the share of population that identifies as First Nations is 6% which is significantly higher than the national population share – illustrating that the REZs could be the sites for employment creation for First Nations people.

There are major variations in the proportion of First Nations residents across the REZs. The share of population varies between a low of 2% (mid-north South Australia) to a high of 22% (Leigh Creek, South Australia).

[1] The socio-economic analysis uses a 10 km buffer zone around the REZ boundary to capture the workforce that could be able and willing to travel and work in the REZ. In some locations, the 10km buffer overlaps with peri-urban areas, thereby increasing the population estimate. Therefore this profile reports on the proportion of First Nations residents rather than total numbers. More detailed outputs are contained in Appendix 1 including the list of REZs. Note that Leigh Creek (South Australia) and Banana REZs (Queensland) are not included because no employment is projected before 2030.

There are a number of key points to note from a comparison of REZ populations.

- In NSW, the New England REZ and Central-West Orana REZ where most of the development is planned to occur have some of the highest proportions of First Nations population (9.4% and 12.7% respectively).
- By comparison, a much lower average of 2.5% of the population in Victorian REZs and 2.2% in South Australian REZs identify as First Nations.
- In Queensland, the First Nations share of population ranges from 4.4% (Wide Bay REZ) to 9.6% (Banana REZ).
- The North-West Tasmania REZ also has a higher proportion of First Nations residents (8.9%) than in the rest of the state.

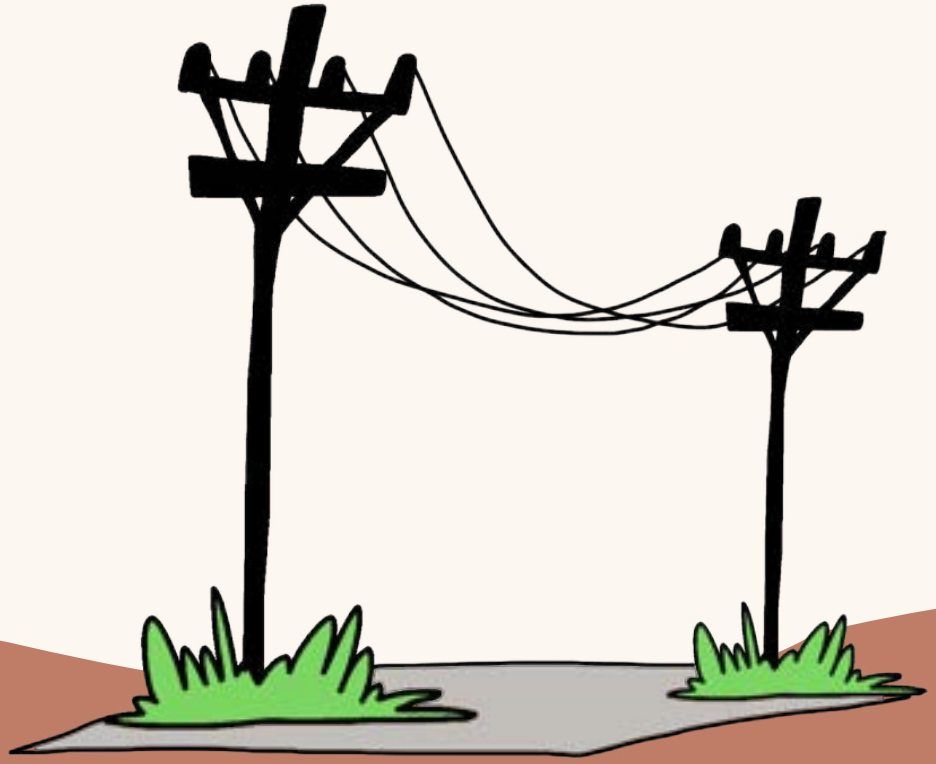
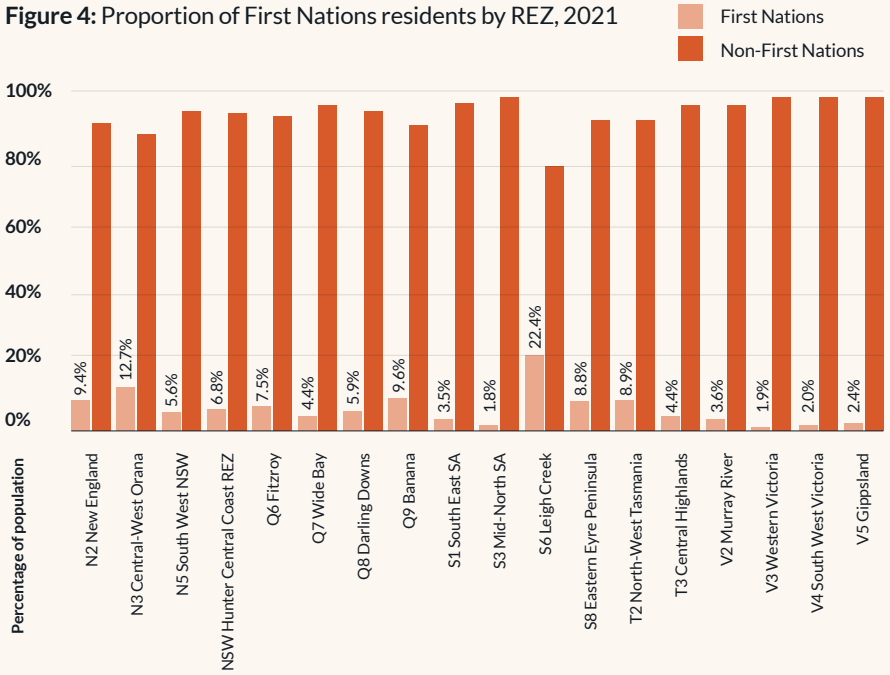


Figure 4: Proportion of First Nations residents by REZ, 2021



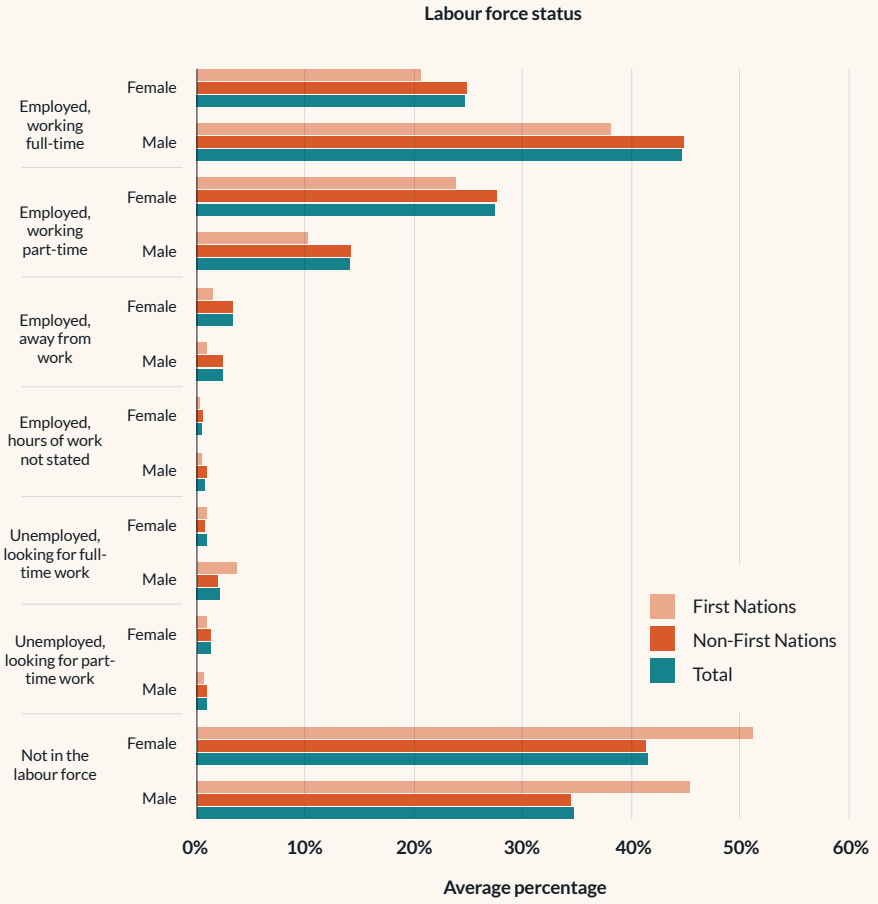
First Nations employment participation is lower than non-First Nations people, though unemployment is still relatively low

Compared to the non-First Nations population, there is a higher proportion of First Nations men (45%) and women (51%) who are not in the labour force.

There is also a lower proportion of First Nations men and women who are in full or part-time employment (Figure 5). Nonetheless, the average unemployment rate among First Nations residents in the REZs is still relatively low by historical standards (AIHW 2021).

Consequently, there is limited spare capacity to fill jobs amongst those seeking work and inducing those out of the labour force could be necessary to achieve higher employment targets. The drivers of lower workforce participation among First Nations men and women in the REZs compared to the general population are complex, reflecting a variety of family, cultural, and health factors.

Figure 5: Population by Labour Force Status and Gender, REZ Average, 2021



The First Nations population is much younger than the non-Indigenous population

First Nations residents in the REZs typically have a much younger age profile compared to the wider population. Just over half of all First Nations residents in the REZs are aged 19 years or under compared to just under one-quarter of the REZ population. There is also a lower proportion of First Nations people aged 35 and above, with the gap between First Nations and non-Indigenous increasing among the older age groups (Figure 6).

Consequently, there is an enormous opportunity to reduce or break cycles of disadvantage if pathways can be created for First Nations students and youth into renewable energy jobs. Initiatives for school students need to be at the centre of employment and training initiatives for First Nations Australians in REZs.

The high representation of First Nations young people offers significant opportunity for REZs to affect Closing the Gap Targets related to education and employment of young people (Closing the Gap Targets 4, 5, 6 and 7). This opportunity is further necessitated by the fact that these targets concerning the education, skilling, training and employment of primary school aged to 34-year-old First Nations people are 'not on track', whereas the employment of 24 to 64 year olds, Target 9, is on track.

First Nations people have lower-level qualifications in fields that are mostly not in demand in the renewable energy sector

There is a high proportion of First Nations people with qualifications in society and culture and health (together over 35%). However, representation in more applicable fields of study, such as engineering and related technologies, and management and commerce, were significantly lower with rates of 18% and 20% respectively. (Figure 7).

The occupational distribution highlights the higher rates of First Nations employment as community and personal service workers, labourers and machine drivers and operators. The level of technicians and trades workers are comparable to the non-Indigenous population.

Figure 6: Population by Age Groups, First Nations and Non-First Nations, REZ Average (%), 2021

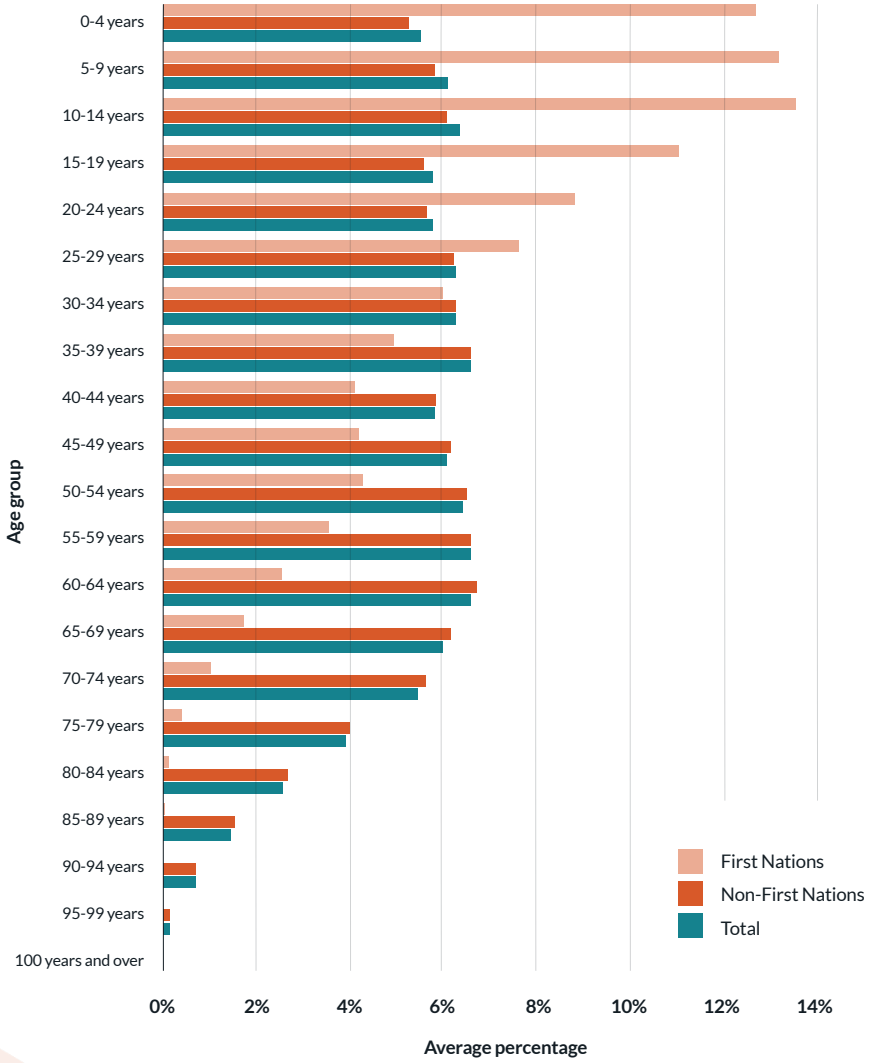
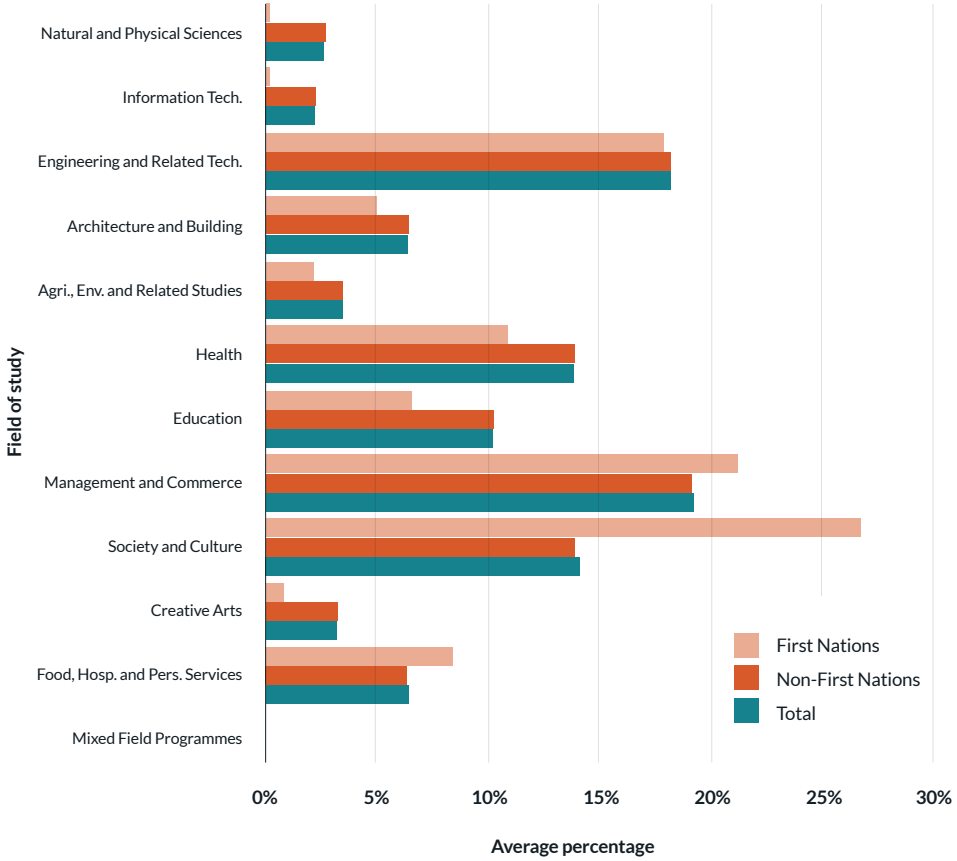


Figure 7: Population by Field of Study, REZ Average (%), 2021



What is the potential for First Nations employment in the REZs?

There are three main avenues for growing the First Nations renewable energy workforce in the REZs:

1. existing workers shifting into renewable energy,
2. school leavers and new entrants entering the workforce, and
3. those who are unemployed or not currently in the labour force entering the workforce.

In order to understand the potential for increased supply to meet targets of 1.5%, 5%, and 10% of renewable energy jobs, each of these three sources of labour supply are considered in turn. The data can inform the scale, location, and design of initiatives to increase First Nations employment in the REZs.

Existing First Nations workforce in renewable energy-aligned occupations

The first step is to compare the current First Nations workforce in occupations that are commonly used in regional renewable energy projects against the target shares of renewable energy employment in the peak year and by 2030 in each REZ. [2]

Based on past employment modelling, the key occupations with alignment to renewable projects in regional areas are:

- Construction, Distribution, and Construction Managers
- Engineering Professionals
- Building and Engineering Technicians
- Electricians
- Mobile Plant Operators
- Truck Drivers
- Construction and Mining Labourers

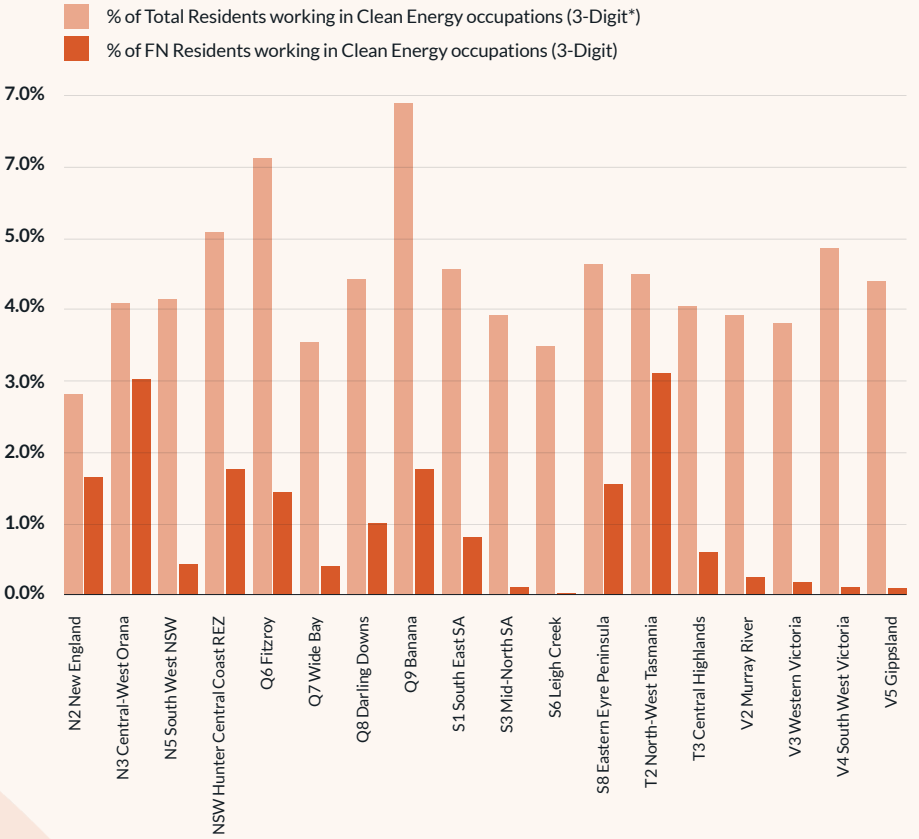
[2] The methodology is outlined in more detail in Appendix 2.

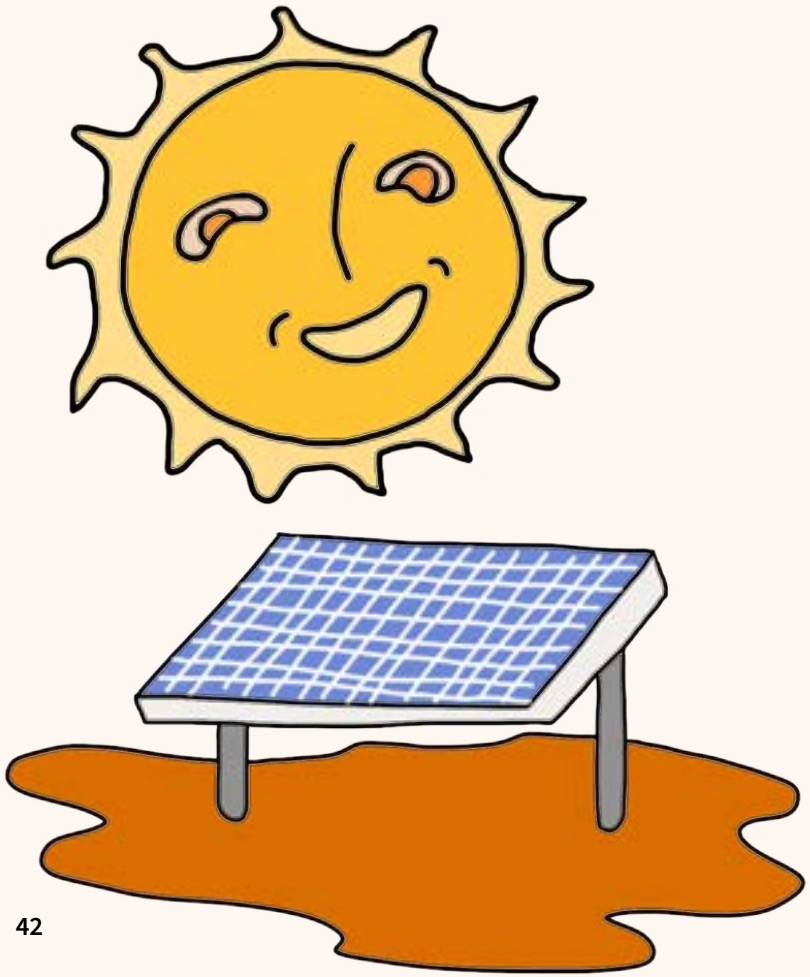
- Miscellaneous Labourers
- Mechanical Engineering Trades Workers
- Automotive Electricians and Mechanics
- Occupational and Environmental Professionals
- Health Diagnostic and Promotion Professionals.

Within the Australian Standard Classification of Occupation, there are different levels from 1-digit (managers, professionals, trades etc) through to 4-digit (specific trades e.g. electricians).

The size of the First Nations population working in these aligned occupations is low – less than 3% of the First Nations population for these occupations at a 3-Digit level and 1.2% at a 4-Digit

Figure 8: Proportion of First Nations REZ residents in clean-energy aligned occupations (%), 2021





When the volume of First Nations people working in these occupations is compared to each of the targets for 2030 (see Table 3), the key results are:

- In most REZs there are already sufficient First Nations people in adjacent occupations to meet a **1.5%** renewable energy jobs target in 2030.
- For a **5% target** in 2030, many REZs have sufficient First Nations people in adjacent occupations.
- For a **10% target** in 2030, around half of the REZs have sufficient existing workers with the right occupational profile. The gap for many REZs is often modest, ranging from 25 – 75 workers.

However, an occupational analysis shows that the First Nations workforce is heavily skewed towards truck drivers, with the remainder mostly employed as labourers followed by smaller numbers of mechanics, electricians, metal fitters, and construction workers. Consequently, if there were to be redeployment from the existing workforce, it would mostly occur in lower-skilled jobs.

Building First Nations employment in higher-skilled employment and career paths would have to occur over time or through the school's population.

Table 3: Current First Nations Workforce and Renewable Energy Employment (2030)

REZ	Projected RE demand, 2030	FN workers in RE aligned occupation	Current FN employment share	FN workers relative to 1.5% jobs target, 2030	FN workers relative to 5% jobs target, 2030	FN workers relative to 10% jobs target, 2030
N2 New England	1,108	38	1.7%	21	-17	-73
N3 Central-West Orana	2,307	186	3.0%	151	71	-45
N5 South West NSW	128	14	0.4%	12	8	1
NSW Hunter Central Coast REZ	12	679	1.8%	679	678	678
Q6 Fitzroy	1,391	173	1.5%	152	103	34
Q7 Wide Bay	748	51	0.4%	40	14	-24
Q8 Darling Downs	2,031	154	1.0%	124	52	-49
S1 South East SA	804	36	0.8%	24	-4	-44
S3 Mid-North SA	685	69	0.1%	59	35	0
S8 Eastern Eyre Peninsula	30	46	1.6%	46	45	43
T2 North-West Tasmania	762	163	3.1%	152	125	87
T3 Central Highlands	1,164	31	0.6%	14	-27	-85
V2 Murray River	71	20	0.2%	19	16	13
V3 Western Victoria	420	16	0.2%	10	-5	-26
V4 South West Victoria	931	7	0.1%	-7	-40	-86
V5 Gippsland	2,227	7	0.1%	-26	-104	-216

When comparing the current First Nations workforce in these occupations to the peak employment year for each REZ, the number of REZs (11 of 18) experiencing a gap between the current First Nations workforce and the 10% target increases, as does the magnitude of the gap.

Focussing on the REZs with the largest projected employment, we find there is a very large shortfall in New England, significant shortfalls in Darling Downs and Gippsland, and smaller shortfalls in South East, Mid-North South Australia and North-West Tasmania. Only in Central Highlands, Tasmania does the existing First Nations workforce match the size of the projected demand.

Table 4: Current First Nations workforce and peak renewable energy demand

REZ	Projected RE demand, peak	FN workers in RE aligned occupation	Current FN employment share	FN workers relative to 1.5% jobs target, peak year	FN workers relative to 5% jobs target, peak year	FN workers relative to 10% jobs target, peak year
N2 New England	7,115	38	1.7%	-69	-318	-674
N3 Central-West Orana	3,399	186	3.0%	135	16	-154
N5 South West NSW	230	14	0.4%	11	3	-9
NSW Hunter Central Coast REZ	903	679	1.8%	665	34	589
Q6 Fitzroy	1,430	173	1.5%	152	101	30
Q7 Wide Bay	748	51	0.4%	40	14	-24
Q8 Darling Downs	3,851	154	1.0%	96	-39	-231
S1 South East SA	1,164	36	0.8%	19	-22	-80
S3 Mid-North SA	1,430	69	0.1%	48	-2	-74
S8 Eastern Eyre Peninsula	220	46	1.6%	43	35	24
T2 North-West Tasmania	1,343	163	3.1%	143	96	29
T3 Central Highlands	1,164	31	0.6%	14	-27	-85
V2 Murray River	80	20	0.2%	19	16	12
V3 Western Victoria	963	16	0.2%	2	-32	-80
V4 South West Victoria	1,404	7	0.1%	-14	-63	-133
V5 Gippsland	2,227	7	0.1%	-26	-104	-216

Note 1: Projected renewable energy worker demand in 2030 in Banana and Leigh Creek REZs is not available as construction is expected to commence post-2030 timeframe for this analysis.

The scope for new renewable energy sector entrants from school students

The next step of the analysis is to consider the scope for the existing First Nations secondary school-aged population to move into the renewable energy sector (Table 5). Unfortunately, secondary school enrolment data is unreliable so we have used census data on 15-19 year olds that self-identify as First Nations as the best available source to analyse the volume of new entrants to renewable energy that could come from young people.

If First Nations young people enter renewable energy-aligned occupations at the current rate of between 1 – 3 % ('BAU rate'), they would contribute only a handful of additional students.

However, comparing the volumes of First Nations youth aged 15-19 within the REZs against each of the employment targets provides an indication of the potential for new entrants from First Nations students into renewable energy.

For the education and training Closing the Gap targets for Year 12 completions (Target 5), tertiary qualifications (Target 6), and participation in employment, education or training for 15 – 24 year olds (Target 7), there is improvement but the targets are not on track to be met. Significant information programs to improve awareness of the opportunities, training programs and industry commitments to make this happen are absent. Nonetheless, the results indicate if renewable energy could attract and train even modest proportions of First Nations youths, this would make a large contribution to the achievement of targets in most REZs:

- For most REZs, less than 5% of 15-19 year olds entering renewable energy would be sufficient to meet a 1.5% target and less than 10% would be sufficient to meet a 5% target on their own.
- For the Queensland REZs with larger employment demand (Fitzroy, Darling Downs), the percentage of students required to provide labour supply to meet a 10% renewable energy employment target on their own is 10%.
- In NSW in the New England REZ and Central West Orana REZs, around 15% of 15-19 year old's equates to a target of 10% employment in renewable energy.
- For the REZs with larger employment demand in Victoria, 15-19 year olds could make a notably smaller contribution in Gippsland and the South-West REZ.
- In Tasmania, 15-19 year olds could make a significant contribution in the North-West and to a lesser extent in the Central Highlands REZ.

Overall, the analysis indicates the major opportunity to grow First Nations employment in REZs will be in attracting and training school leavers.

Table 5: New entrants from First Nations secondary students

REZ	Projected RE demand, 2030	15-19 year olds, First Nations	New entrants to RE occupations, BAU rate	% of 15-19 y.o's, relative to 1.5% FN jobs target, 2030	% of 15-19 y.o's, relative to 5% FN jobs target, 2030	% of 15-19 y.o's relative to 10% FN jobs target, 2030
N2 New England	1,108	716	12	2.3%	7.7%	15.5%
N3 Central-West Orana	2,307	1,643	50	2.1%	7.0%	14.0%
N5 South West NSW	128	23	0	8.4%	27.9%	55.7%
NSW Hunter Central Coast REZ	12	4,737	84	0.0%	0.0%	0.0%
Q6 Fitzroy	1,391	1,390	20	1.5%	5.0%	10.0%
Q7 Wide Bay	748	1,224	5	0.9%	3.1%	6.1%
Q8 Darling Downs	2,031	1,814	18	1.7%	5.6%	11.2%
S1 South East SA	804	119	1	10.1%	33.8%	67.6%
S3 Mid-North SA	685	1,611	2	0.6%	2.1%	4.3%
S8 Eastern Eyre Peninsula	30	451	7	0.1%	0.3%	0.7%
T2 North-West Tasmania	762	893	28	1.3%	4.3%	8.5%
T3 Central Highlands	1,164	395	2	4.4%	14.7%	29.5%
V2 Murray River	71	258	1	0.4%	1.4%	2.8%
V3 Western Victoria	420	244	0	2.6%	8.6%	17.2%
V4 South West Victoria	931	178	0	7.8%	26.2%	52.3%
V5 Gippsland	2,227	205	0	16.3%	54.3%	108.6%

Source: ABS Census (2021) used for 15-19 year old population. Projected employment demand is based on ISF analysis of AEMO employment demand for the Step Change scenario.

The scope for new renewable energy sector entrants among the currently unemployed and outside the labour force

Another avenue for growing the First Nations workforce in the renewable energy sector is the population who are currently unemployed and not in the labour force. To understand the contribution the unemployed or those not in the labour force could make, it is assumed the participation rate in renewables-aligned occupations by those in unemployment or not in the labour force could be increased to the existing BAU rate (1 – 3% in most REZs).

In most REZs, placing small portions of the unemployed and those not in the labour force into the renewables workforce would make large contributions to the achievement of a 10% target and is greater than the volumes required to achieve a 1.5% or 5% target.

There are of course major structural barriers to increasing participation amongst this cohort and employment would need to be in entry-level positions. In order to address the systemic issues of disadvantage at the root of much of this unemployment, significant intervention will be required across a range of areas such as health, housing, transport, as well as labour market programs.

Nonetheless, the use of pre-employment programs and other initiatives to employ just 1 – 3% of the unemployed and those not in the labour force also appears attainable as a benchmark - with commitment from governments and industry - especially in solar farms.

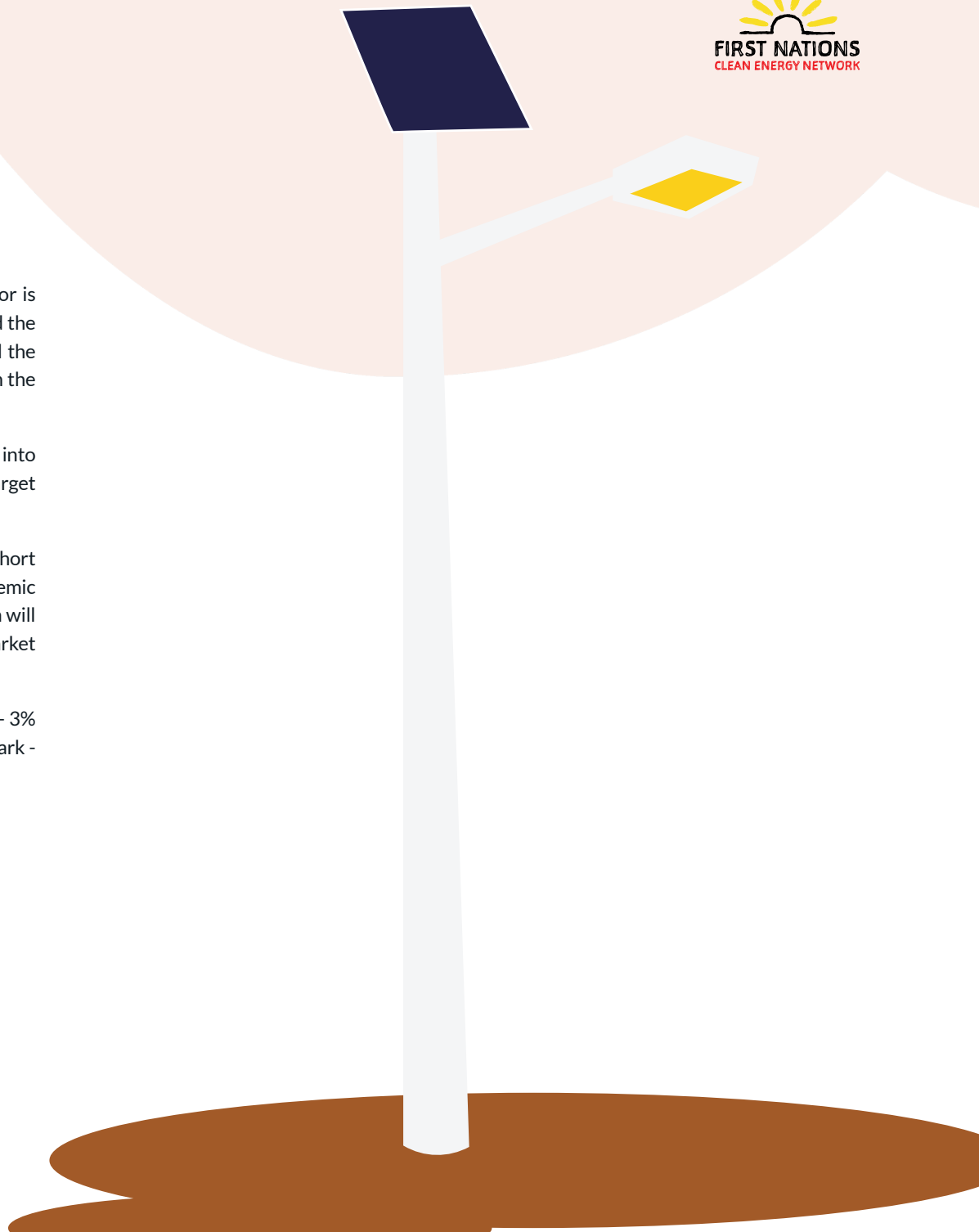


Table 6: Meeting First Nations jobs targets with new sector entrants from the unemployed (u/e) and not in labour force (NILF)

REZ	Projected RE demand, 2030	Current FN participation rate	FN U/E or NILF	New Entrants, BAU rate	Ratio of New Entrants/1.5% target	Ratio of New Entrants/ 5% target	Ratio of New Entrants/10% target
N2 New England	1,108	1.7%	2,295	38	2.3	0.7	0.3
N3 Central-West Orana	2,307	3.0%	4,862	147	4.2	1.3	0.6
N5 South West NSW	128	0.4%	1,165	5	2.7	0.8	0.4
NSW Hunter Central Coast REZ	12	1.8%	12,106	214	1213.8	364.1	182.1
Q6 Fitzroy	1,391	1.5%	3,593	52	2.5	0.8	0.4
Q7 Wide Bay	748	0.4%	4,231	18	1.6	0.5	0.2
Q8 Darling Downs	2,031	1.0%	4,975	50	1.6	0.5	0.2
S1 South East SA	804	0.8%	936	8	0.6	0.2	0.1
S3 Mid-North SA	685	0.1%	6,172	8	0.8	0.2	0.1
S8 Eastern Eyre Peninsula	30	1.6%	1,980	31	70.3	21.1	10.5
T2 North-West Tasmania	762	3.1%	2,688	84	7.3	2.2	1.1
T3 Central Highlands	1,164	0.6%	1,289	8	0.4	0.1	0.1
V2 Murray River	71	0.2%	1,905	4	4.1	1.2	0.6
V3 Western Victoria	420	0.2%	944	2	0.3	0.1	0.0
V4 South West Victoria	931	0.1%	429	0	0.0	0.0	0.0
V5 Gippsland	2,227	0.1%	759	1	0.0	0.0	0.0

Note 1: 'Unemployed' includes people who are not in paid employment but who are actively looking for either part-time or full-time work. 'Not in labour force' includes people who are not in paid employment and who are not looking for work.

Bringing it Together: Labour Supply to meet First Nations jobs targets

Bringing the analysis of these different sources of labour supply together, we examine the volume of the potential First Nations workforce in the REZs relative to each target scenario in 2030 and the peak year of renewable energy demand (which varies by REZ). The total of the existing First Nations workforce in renewable energy aligned occupations is added to new entrants from the student population plus the unemployed / not currently in the labour force based on the BAU participation rate in these occupations.

For most REZs, reaching First Nations employment targets by 2030 or the peak demand year appears, on the whole, attainable.

Some of the key findings from the combined supply results (Table 7) are:

- There is a surplus of supply against a 2030 1.5% target for almost all REZs – with the exception of Gippsland and South-West Victoria – and deficits are small.
- There is a surplus against a 5% target for all REZs except three REZs in Victoria and one REZ in Tasmania.
- The only other major REZ where there is a deficit in 2030 is New England. There are significant deficits in New England against 5% and 10% targets in the peak demand year (2028).
- Most of the other REZs have a surplus labour supply against all targets in the peak employment year, with the exception of Darling Downs.
- The top three REZs best positioned to meet the 10% target are the Hunter Central Coast, North-West Tasmania and Fitzroy REZ, primarily because their existing workforce is starting from a comparatively high baseline.

On the one hand, these results should be qualified because even where there is a surplus of labour supply, this does not mean that First Nations people will choose to or find their way to the renewable energy sector.

However, on the other hand, it should be underlined that the scenario assumes the new entrants from school students, the unemployed and those not in the labour force occurs at the same rate as current First Nations participation in these occupations. Those participation rates are low – to reiterate they are between 1 – 3% for most REZs.

In particular, for some of the larger REZs such as Darling Downs and Fitzroy there are significant volumes of additional new entrants that could be generated from the student population if their rate of participation could be lifted even by just a few percentage points.

The deficits that exist in some REZs are therefore not insurmountable: they illustrate that programs and industry initiatives would be required to build more supply over time to meet more ambitious targets.

Table 7: Meeting First Nations jobs targets with existing workers and new entrants under a BAU participation scenario

REZ	RE demand, 2030	RE demand, peak	Combined FN supply relative to 1.5% target (2030)	FN supply relative to 5% target (2030)	FN supply relative to 10% target (2030)	FN supply relative to 1.5% target (peak)	FN supply relative to 5% target (peak)	FN supply relative to 10% target (peak)
N2 New England	1,108	7,115	71	33	-23	-19	-268	-624
N3 Central-West Orana	2,307	3,399	348	267	151	331	212	42
N5 South West NSW	128	230	17	13	7	16	8	-4
NSW Hunter Central Coast REZ	12	903	977	976	976	963	932	887
Q6 Fitzroy	1,391	1,430	225	176	106	224	174	102
Q7 Wide Bay	748	748	63	36	-1	63	36	-1
Q8 Darling Downs	2,031	3,851	192	121	19	165	30	-163
S1 South East SA	804	1,164	32	4	-36	27	-14	-72
S3 Mid-North SA	685	1,430	69	45	11	58	8	-64
S8 Eastern Eyre Peninsula	30	220	84	83	81	81	73	62
T2 North-West Tasmania	762	1,343	263	236	198	254	207	140
T3 Central Highlands	1,164	1,164	23	-17	-76	23	-17	-76
V2 Murray River	71	80	24	21	18	24	21	17
V3 Western Victoria	420	963	12	-3	-24	4	-30	-78
V4 South West Victoria	931	1,404	-6	-39	-86	-13	-63	-133
V5 Gippsland	2,227	2,227	-25	-103	-215	-25	-103	-215

Note 1: The current First Nations participation rate is the percentage of First Nations people in renewable energy-aligned occupations in each REZ based on ABS census 2021.

Conclusion

The purpose of this analysis is to inform government, industry and communities on the scope for increasing First Nations employment across the REZs in generation, storage and transmission projects.

Responding to debate about setting targets for First Nations employment and training and what targets might be appropriate, our analysis points to a number of key conclusions:

- The context between REZs varies: in particular, some REZs have higher First Nations populations and capacity to aim for higher targets.
- The size of the existing workforce in aligned occupations is equivalent to 1.5% in almost all REZs and 5% in many REZs. However, it is heavily concentrated in a small number of occupations (e.g. truck drivers) so in reality provides only a limited base for growth.
- Growth in First Nations workforces in the REZs will therefore primarily need to be through training school leavers and labour market programs for the unemployed, and those out of the labour force, to create pathways into entry-level jobs. First Nations populations in the REZs are relatively young. Therefore, the main avenue for employment growth and opportunity to change the socio-economic position of First Nations communities is through the student population.
- Targets of 5 – 10% appear attainable in major REZs but their achievement will require government programs and industry collaborations. This will take some time, especially to open up opportunities for First Nations Australians in skilled VET-qualified jobs and even more so in professional and management jobs.

3. Remote Areas and Industrial Regions

The clean energy transition is beginning to interact with and impact remote First Nations communities in different ways.

Renewable energy systems and energy efficiency upgrades are being considered for households and large scale energy and transmission projects are proposed on First Nations-owned lands. These projects have the potential to provide many jobs for First Nations people throughout Australia. However, there are many real and perceived barriers which may result in First Nations people not benefitting from these opportunities.

Community consultation was undertaken to help us to understand:

- Employment expectations – developing a framework for attractive jobs for remote First Nations people;
- Employment and training landscape – current job availability, challenges, employment rates, access to training/education;
- Capabilities – existing skills and knowledge in community, as well as limitations such as disability, family/cultural responsibilities and access to transportation;
- Familiarity with the clean energy sector – knowledge of existing and future opportunities, interest, and the expected barriers for local people;
- Past experiences with infrastructure employment – learnings from previous temporary employment opportunities and appetite to participate in future employment opportunities.

Remote areas at a glance

- Remote areas bring special challenges because they may lack an economy and labour market of sufficient scale to provide widespread employment.
- Around three-quarters of First Nations people in metropolitan areas are in the labour force – which falls to over two-thirds in regional areas and then only half in very remote areas (Jobs Skills Australia 2022).
- Educational attainment varies heavily by region. Only one-third of First Nations in remote regions have completed year 12 (or equivalent) (Jobs Skills Australia 2022). For First Nations people in remote regions, there may not be a high school anywhere nearby.
- Due to the low level of 'real jobs', employment and training has been heavily inter-linked with programs (the Community Development Employment Program and Community Development Program) and bursts of construction activity.
- High-cost energy, reliance on diesel and poor quality housing creates opportunities for clean energy to improve people's lives and create meaningful work through programs to bring clean energy to remote communities. The IESP review noted maintenance work in remote communities could be better used to create local jobs with targeted programs (NIAA 2021a).
- The emergence of large-scale renewable energy projects in some remote areas also creates employment opportunities with workforce planning. In some regions, earlier construction projects means there are community members with relevant qualifications and skills even if they do not currently work in construction.

Yarrabah Community Consultation

Community consultation was undertaken to help answer the primary research question: What are the employment expectations of First Nations peoples and how can the clean energy industry meet them?

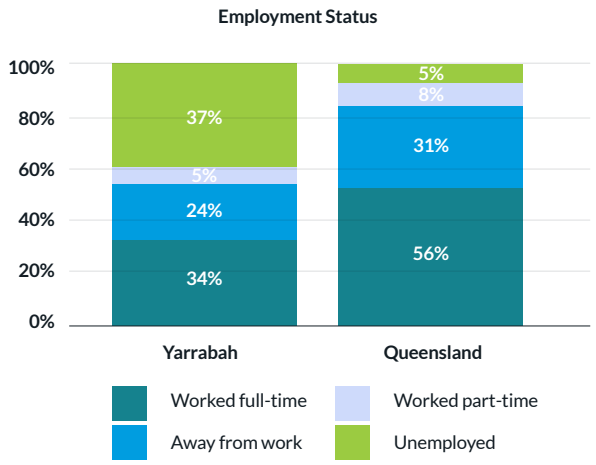
The engagement aimed to view renewable energy opportunities and barriers from a regional/remote First Nations community perspective. To accomplish this a workshop (or focus group) was held in the coastal community of Yarrabah, located in Far North Queensland. Yarrabah is 10kms (as the crow flies) from Cairns but is geographically separated by the Murray Prior Range and Trinity Inlet, extending the journey out to a 50 minute commute via the mountains.

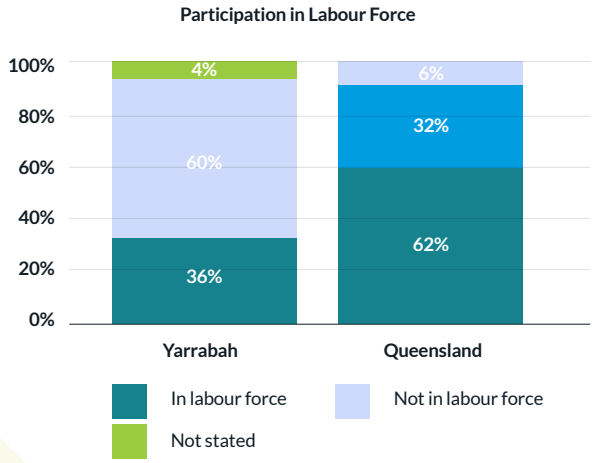
The workshop was attended by 17 local job-seekers who had participated in the Literacy for Life Foundation (LfLF) education program.

Although Yarabah has a relatively young population compared with the rest of the state and country (medium age of 25 compared with 38 for Queensland and Australia), the majority of participants were in the later stages of their working life (over 50). Average participant age was 49 years. Participants were asked to share their work experience and qualifications and to discuss job opportunities and barriers to obtaining employment. They also did an exercise to write down or draw their perspectives of what a good job would look like for them.

Like many other regional and remote First Nations communities, Yarrabah has high unemployment rates and limited local job opportunities relative to the rest of Queensland.

Figure 9: Labour Market Status, Yarrabah & Queensland





In 2022, a microgrid feasibility study for Yarrabah community was completed. The proposed microgrid would aim to reduce outages (Yarrabah experienced 44 outages in the 18 months before the funding was approved), be locally owned (by the Yarrabah Aboriginal Shire Council) and increase electricity affordability. It is estimated that the project will create 17 full time equivalent (FTE) jobs during construction, 3.5 FTE ongoing roles during operations, and a further 14.6 FTE jobs via an Energy Knowledge Hub.

What is a good job?

Our participants framing of a good job generally fell into four categories – example jobs, working hours, location, and a central requirement of the role. The example jobs that people mentioned were generally roles they had previous experience in, which was most commonly cooking, cleaning and ranger jobs. Women were more likely to view cooking and cleaning as an option while men were more likely to bring up ranger jobs, labouring, construction roles or farming.

Although the majority of participants said they would prefer full time roles or casual employment with full time hours, a “good job” had a shorter working day. Several people mentioned having a start time of around 9am but also a finish time of 3-4pm with limited overtime. Having the afternoon to themselves was a particular focus and working within school hours was mentioned by and for mothers.

In terms of desirable locations for work, the majority of participants wanted to work on country or within their local community. Some participants were also happy to travel and work on a FIFO (fly in fly out) or DIDO (drive in drive out) basis, however this was more likely to be an option for the male participants.

The overwhelming preference within the group was to be working outdoors, with some people also mentioning nature and animals as a part of their ideal job. These aspects have been named the central requirements as these features were mentioned more often and more consistently than any others.

3. Remote Areas and Industrial Regions

Example jobs	• Cooking • Cleaning • Ranger
Working hours	• Late starts, early finish 9am to 3-4pm • Within school hours
Location	• On country, in community • Local • FIFO/DIDO ok for some
Central requirements	• Outdoors • In nature • With animals
Other	• Practical work • Tangible outputs • Working in a team • Having a good boss • Variety of tasks • On-site training • Computers

Employment Opportunities

Job opportunities within the Yarrabah community are limited. There are a small number of organisations, services and private businesses operating locally, providing some in-town job opportunities. There are currently no local businesses in the construction, trades or labouring sector, or that provide cleaning or hospitality services. Examples of participants working in community included aid work, administration and construction work, with specific mention of involvement with the upgrades to Bishop Park and construction of the boardwalk. These construction projects were short-term, roughly six months in duration according to the participants. Temporary work was considered "okay as long as it is paid" but people also expressed concern that shorter projects do not lead to obtaining qualifications to prove their skills for future roles.

In terms of the opportunities on renewable energy projects, after learning of the types of jobs that were involved, participants generally felt there were all kinds of opportunities that would be appropriate to them. The group showed they were curious about the prospect of renewable energy developments by asking questions about timeframes, logistics of getting equipment in and out, and how different jobs fit into the overall picture. They also noted that "proper consultation" and cultural heritage surveying would be important to determine where to put the assets. Despite the Yarrabah Microgrid Feasibility Study involving a community engagement component, the participants could not recall being aware of the potential project.

Employment Barriers

Other preferences that emerged with less frequency included a desire for practical work with tangible outputs, working as part of a team, doing a variety of tasks, working from home, having a good boss, receiving on-site training, good hourly rates and using computers or machinery.

During the group discussion we asked participants, "what are your main challenges to getting good employment?", and in relation to renewable energy jobs, "what are the barriers to participating you see?" The conversation revealed the following key employment barriers:

Qualifications

- People tend to have experience but no formal qualifications
- Many jobs advertised through the job network require higher qualifications
- The CDEP scheme did not provide reference letters that could be used as proof of skills and experience

Transport

- No public transport to Cairns and many people don't have a car
- "Taxi costs a fortune" at $75-$100 each way
- Driving is tiring, expensive and puts wear and tear on vehicles
- Licences

Education

- Limited learning opportunities in Yarrabah (there may be a TAFE coming)
- People do not have accommodation in Cairns while they undertake training
- Young people are leaving school early
- Literacy and numeracy (although not mentioned by participants, this is a shared challenge for them and many other adults in Yarrabah)

Police checks

- Can be an issue for some people

Who you know

- Getting a job in Yarrabah and Cairns often comes down to who you know (in Council, a PBC etc)
- Mob support family first

Access to computers

- Most people don't have a computer
- Some computers are freely available for people on Newstart allowance only, but no one is available to assist people to use computers, and no weekend access (Monday – Friday only)

Addiction

- Young people (school leavers) are stuck on Facebook
- Alcohol and drugs

Support

- CDEP program for local work was phased out
- No support to get people onto larger projects in Cairns
- Local job network service not being aware of many opportunities

Experience and qualifications

Our survey cards show the top five areas of work experience for our group of Yarrabah residents were cleaning, arts, landcare/cultural heritage, farm/ranch work, and administration.

The training and qualifications survey showed participants did not hold many formal qualifications. It is common to hear anecdotally that First Nations people are some of the most ticketed and certified people in Australia, however this was not reflected in our workshop. People were more likely to have shorter timeframe certifications such as white cards and food & beverage certificates than longer term qualifications like Certificate III and above.

Key Findings

- The key barriers to employment in the clean energy sector are tied to general systemic disadvantage. The industry will need to be creative to address these deep-seated, intergenerational challenges and issues.
- Regional and remote communities will find clean energy jobs attractive but they will lack the qualifications to get directly into many of the roles.
- There is a strong preference for local work. Some people are willing to travel out of their communities but this may apply more to certain demographics (e.g. men).
- Our participants had a high preference for outside jobs, jobs that pay you to be trained, and jobs with practical/tangible outcomes.

Industrial regions consultation

As emissions reductions targets result in a decrease of fossil fuel extraction, use and export, and a huge uptick in demand for renewable energy, many regions in Australia will experience huge disruptions to their economies and labour force.

There are several Australian regions which are experiencing the transition currently. The Gladstone, Pilbara and LaTrobe Valley regions of Queensland, Western Australia and Victoria respectively are examples of regions that have had to start transitioning the central focus of their economy away from fossil fuel related industries.

A key challenge is providing appropriate jobs for the existing workforce. Large-scale clean energy projects including hydrogen production can deliver these opportunities but will require reskilling. The new industries also open up new employment opportunities for regional First Nations people.

Consultation was undertaken to help us to understand:

- Pathways and barriers for First Nations people working in fossil fuels-based industries, transitioning into clean energy roles.
- Opportunities and challenges for local First Nations people getting into this new space.
- Worker perspectives on the attractiveness and appropriateness of jobs available in clean energy.
- Feedback on engagement and support by clean energy developers.

Workforce provider consultation

Workforce provider consultation was undertaken to help answer the primary research question: What are the barriers and opportunities to increasing First Nations participation in the clean energy sector?

The engagement aimed to capture experiences and insights from a key stakeholder group in the employment of First Nations people. To accomplish this, an online workshop was held for workforce providers from the Gladstone/Rockhampton, Pilbara and LaTrobe Valley regions.

We chose to consult workforce providers in these areas because of their extensive experience working with local First Nations people. These organisations have a deep understanding of the employment preferences and challenges for First Nations people in their region, as they ‘go on the journey’ with hundreds of First Nations job seekers a year. For example, Workforce Australia Employment Services are federally funded providers who support job seekers to become “job-ready” and to find employment.

While workforce providers only assist job-seekers that are on Government income support payments, this represents a significant proportion of First Nations Australians in the labour force - up to 21% of First Nations people aged 15 to 64 receive JobSeeker or Newstart Allowance according to data from AIHW (2023).

Our focus group also included a Community Development Program (CDP) service provider. CDP is an employment and community development service administered by NIAA. The program is specifically for remote communities and aims to help job seekers build skills, address barriers to employment and contribute to their communities. CDP applies across 75% of Australia, supporting 40,000 people in over 1,000 communities.

The key difference between Workforce Australia Employment Services and CDP is that CDP job opportunities include financial support for employers to create new, ongoing roles within remote areas (part time or full time with a minimum of 15 hours per week).

The online focus group was attended by five job-seeker support workers representing four Queensland-based offices and one Western Australia-based office. All firms have a high proportion of First Nations people in their caseload. Participants were asked to share their experiences and insights around First Nations employment opportunities and barriers in their regional, industrial areas. The discussion echoed much of what we heard during the community consultation in Yarrabah.

Key employment sectors and First Nations preferences

We asked our workforce focus group what roles they are generally placing their First Nations job-seekers into. The responses were consistent, with top jobs being labouring and cleaning, and the top industries being construction, civil construction, rail and mining. The key reasons were noted as availability of entry level positions, ready access to the required training courses, on-site training and short-duration training.

"Mainly labouring. Because it's a lot easier to get the training done with your rail and your construction and your resources and infrastructure than your certificates, II and III, for a lot of our Indigenous caseload." (Sam)

This is in part driven by a lack of quality training and appropriate Registered Training Organisations (RTOs) in the regional areas they operate in.

"..We all know what the issues are, there's not enough training or ability to train for Indigenous people to get up into the same sector." (Sean)

When asked what types of employment their First Nations caseloads preferred, the responses were unanimous. First Nations job seekers in the Pilbara and Central Queensland are most likely to enquire about roles in mining. Our workforce providers told us the key motivations for wanting to work in the mining industry were first and foremost for the high wages and also the perception that many of the roles are not strenuous.

"They all say mines, I'm pretty sure every second person says 'I want to go to the mines'." (Sandy)

However, the job-seekers soon discover that the roles often don't meet expectations. Aspects that are particularly challenging are working away from home, not having the ability to return home quickly if needed, and lack of flexibility for cultural/family obligations.

"I would say that in placing Indigenous and non-Indigenous people into the mine sites (because I have a mixture of my caseload) around 20 - 30% actually stay on (employment of Indigenous). Whereas I have a 60% stay on for non-Indigenous in the mining sector." (Sean)

Challenges and barriers to First Nations employment

Many of the training and employment challenges that regional and remote First Nations communities face are due to systemic, intergenerational disadvantage. The clean energy industry will need to bring innovative solutions to the table to overcome barriers to achieving ambitious First Nations employment targets.

Workforce providers see the key barriers to First Nations employment as:

- Cultural awareness among employers and RTO's
- Trade-offs between wages and government benefits
- Working outside of community
- Foundational education including computer literacy
- Transportation
- Engagement
- Prejudice and previous history bias.

One of the workforce providers summed up the barriers in this way:

"..One of the hardest things we've had to deal with over the years. They've got sorry business and cultural business and law that they have to attend. A lot of employers don't like the idea of their staff disappearing for two, three weeks at a time. And that is one of the biggest issues we have regarding Indigenous to non-Indigenous employment." (Sean)

Key takeaways for the clean energy industry

Some considerations the clean energy industry can take away from this consultation are:

Training pathways will be key to creating a strong pipeline of First Nations workers in the sector

Training will need to be:

- **Accessible** – taking into account the barriers faced by regional and remote communities (e.g. literacy, access to computers/high speed internet, lack of quality local RTO's, travel requirements etc). This may also include paying people to attend training. There are some successful models from other industries that could be used as a template (e.g. using milestone payment structures to incentivise course completion).
- **Affordable** – course fees will present a significant barrier to many First Nations people including those applying through a workforce provider.
- **Attractive** – developing a strong public image that promotes the industry and its key benefits for First Nations people. Identifying, communicating and supporting clear pathways from training to job outcomes.
- **Supportive** – personalised support to ensure everyone is given a fair go to help them succeed.
- **Timely** – avoid training too early and then leaving job-seekers without a position to move into.

Industry-specific training will be required to elevate First Nations people above entry-level roles

There is a current gap in this market, especially for those living regionally and remotely. Based on the challenges we heard, training should be:

- **Targeted** – Industry specific training will ensure that people are fully prepared for the roles that are relevant to the clean energy sector.
- **Quality** – Many existing RTOs have low quality content and a lack of individual support. The clean energy industry should look to form new RTOs or develop relationships with good existing RTOs that can deliver well-trained workers into the industry.
- **Linked to a position** – Ideally proponents would take responsibility for job-seekers before they undergo their training, offering them support and a guaranteed position at completion.
- **Paid** – Completion rates are higher when First Nations people are paid while they complete necessary training.
- **Ongoing** – Continued on-site training and support is required for many First Nations people to feel confident in their role.

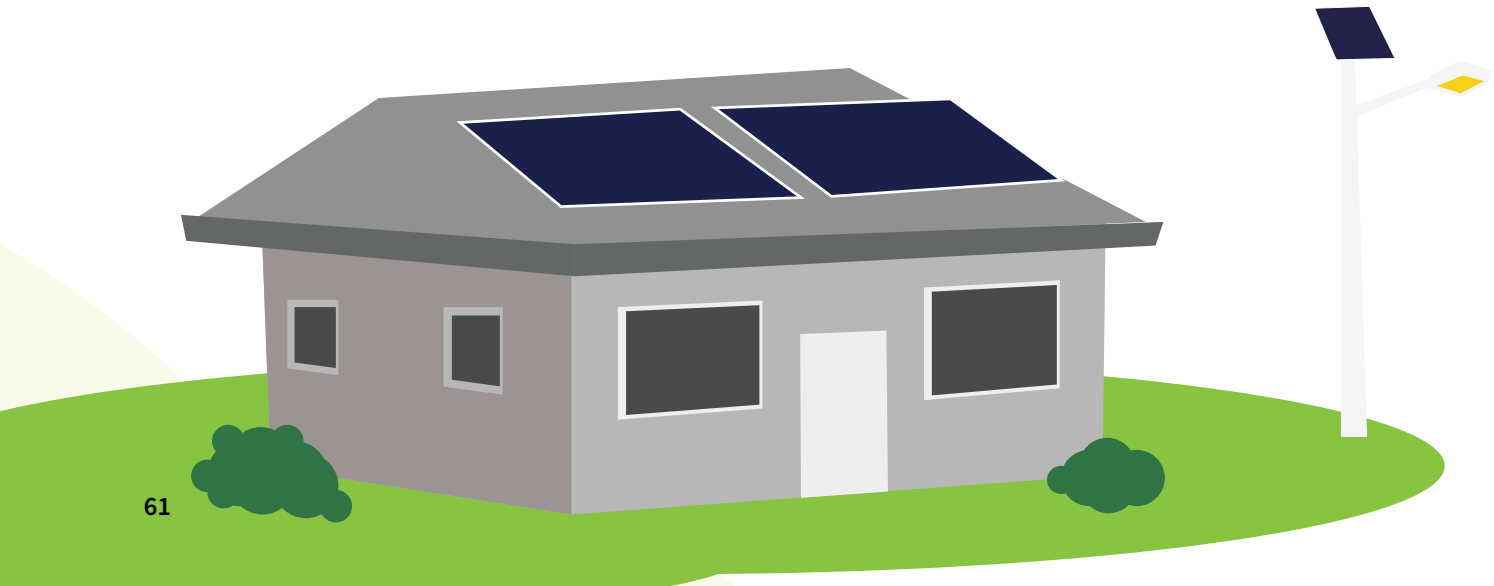
First Nations job seekers (particularly the younger generations) in regional and remote communities are motivated to attain high wages

This is driven by high remunerations in the mining industry, loss of government assistance when employment is obtained and a cultural obligation to share income with immediate and extended family. Lower-paid entry level jobs will be less attractive to a First Nations labour force. Efforts will need to be made to train this workforce for positions that meet salary expectations.

Cultural awareness is a key priority and concern for First Nations employment

What this means in practice is a working or training environment where there is an understanding of Aboriginal and Torres Strait Islander culture and a flexibility that allows for cultural obligations to be upheld. This may include reduced working hours to cater for regular caring duties, and paid or unpaid cultural leave for circumstances such as sorry business or ceremony.

The clean energy industry will be in competition for First Nations workers, primarily with the mining and construction industries



4. Key Recommendations: How to increase First Nations Employment & Training in Clean Energy

Past reviews have found most policies and programs have had limited success or primarily increased First Nations employment in low-skill, temporary jobs. Well-designed programs with collaboration across government, industry, employment and training specialists, and with First Nations Australians will be required to get better outcomes in clean energy.

One of the key learnings from past programs is that supply and demand measures need to be integrated. Supply-side measures on their own can easily become 'training for training sake'. Demand-side measures such as procurement targets on their own risk 'accounting exercises' - the industry finds ways to comply with targets without employing or training people with the right skills to create meaningful employment opportunities.

A review of 'diversity' programs by the International Energy Agency (IEA) found outcomes are best when employment and training initiatives are integrated into the fabric of other policy domains that typically drive the change – climate, energy and industry policy: 'Many governments are investigating the development of training, reskilling and educational programmes in anticipation of the upcoming changes. The most advanced programmes align energy, industrial, labour and education policies to jointly develop a strategy for energy transitions' (IEA, 2022:12).

There are four types of actions recommended to increase First Nations employment and training in clean energy:

1. **'Demand-side'** measures to increase clean energy training and employment opportunities for First Nations Australians.
2. **'Supply-side'** measures to increase the volume of First Nations Australians with the right skills.
3. **'Enabling'** or 'Integration' measures which connect industry, employment and training resources and First Nations people or provide support services to smooth implementation
4. **'Cross-cutting'** measures to increase the capacity of First Nations organisations and change the culture of the clean energy industry. Sustainable change requires developing the capacity of First Nations organisations and creating culturally safe workplaces for First Nations workers.

In practice, even if an action is classified as a demand-side or supply-side, it will generally require a combination of these measures to be successful and should be read with that in mind.

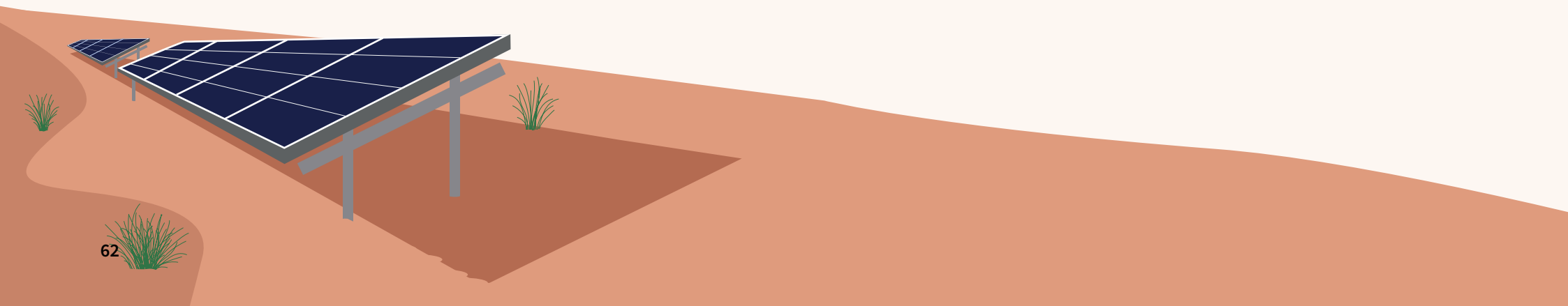


Figure 10: An Action Plan for Increasing First Nations Employment and Training in Clean Energy

OPTIONS FOR INCREASING FIRST NATIONS EMPLOYMENT AND TRAINING IN CLEAN ENERGY

SUPPLY-SIDE

- First Nations school students: careers programs and outreach campaigns
- School-to-VET Transitions: interns, trainees, pre-apprenticeship and apprenticeship programs
- University: outreach engagement by Regional Universities Centres and First Nations cadetships
- Pathways into the workforce: pre-employment programs for solar farms

Increased supply of First Nations people with skills for clean energy

◀ ▶

First Nations clean energy mentors, role models & development of pathways

ENABLING MEASURES

- Industry support program: embed project officers for recruitment and training services
- Tenders for Group Training Organisations to host apprentices across REZs and indigenous housing retrofits
- Place-based collaborations between industry, First Nations organisations and training bodies.

Developing industry and training capacity to achieve employment targets

◀ ▶

Leveraging procurement and voluntary commitments to increase demand for First Nations workers

DEMAND-SIDE

- First Nations employment and training targets: the Capacity Investment Scheme & State REZs
- Industry program for First Nations wind maintenance technicians
- First Nations employment targets and training for Indigenous housing retrofits, micro-grids and diesel replacement programs
- 'Career trackers for clean energy': long-term industry commitments to First Nations cadetships

CROSS-CUTTING

BUILDING THE CAPACITY OF FIRST NATIONS ORGANISATIONS, NETWORKS AND BUSINESSES

- Support for First Nations businesses to participation in clean energy projects through capacity building for tendering
- Develop a national community of practice for First Nations organisations to collaborate and share knowledge on participation in the clean energy sector
- Fund capacity building programs which support the creation of First Nations businesses

CULTURAL COMPETENCE OF THE CLEAN ENERGY SECTOR

- Improve cultural awareness through greater take-up of RAPS and equivalent commitments among clean energy sector companies
- Increasing cultural competency through incentives, funding and tender requirements

Strategy options: demand-side

1. Incorporate First Nations employment and training targets into the Capacity Investment Scheme

'Demand measures cannot work without supply measures. I've seen so many perverse outcomes from targets; for example, pulling workforce off one project to meet your targets for one project to meet targets.' (renewable energy industry stakeholder).

'There's lots of consultation that doesn't go anywhere – talk to tier 1, then it goes to next contractor, project starts in 2 weeks, misses boat for jobs … Too much consultation without outcomes - tick a box, met blackfellas, walked away. Until there are targets in place nothing is going to change.' (Land Council, CEO).

RATIONALE

Employment and training targets within procurement are increasingly common as a mechanism for increasing private sector investment in training or workforce diversity. The Australian Government is introducing the Australian Skills Guarantee (ASG) to increase investment in training, requiring one in 10 workers on major Australian Government funded projects be an apprentice, trainee or paid cadet. The ASG will include targets for women but there is no reference to First Nations people. Jobs Skill Australia (2023: 239) notes employer intakes of learning workers needs to increase and recommends applying the ASG targets to clean energy as 'one means of stimulating a training culture, and sustainable workplace conditions more broadly.'

In consultation for the Indigenous Skills and Employment Program review, a 'common theme' and one of the fundamental weaknesses of previous employment programs was the lack of employer accountability and First Nations employment targets (NIAA 2021a & b). In our stakeholder engagement, there was very strong support for mandatory employment targets amongst First Nations stakeholders and employment service providers. In part, this was based on experience with solar farms, but more broadly employment service providers noted the importance of firm commitments for motivating First Nations applicants (and conversely the negative impacts when training or discussions don't lead to actual jobs).

The coverage of employment and training targets for First Nations in clean energy is low:

- NSW REZs: the auction criteria for the NSW Long-Term Electricity Supply Agreements require a minimum of 1.5% of employees and 'learning workers' (apprentices, trainees, cadets) be First Nations. There is also a voluntary 'stretch' target of 10% which the criteria state projects should demonstrate how they will make progress towards this target (AEMO Services 2022). There is no public information on the impacts of these targets.
- Some other Federal and State infrastructure procurement tenders include employment and training targets for First Nations people. These targets can sometimes apply to clean energy, such as retrofits for First Nations housing, but generally they do not cover clean energy projects.
- No employment or training requirements are included in projects funded by ARENA, the Clean Energy Finance Corporation or REZs outside NSW.

The Capacity Investment Scheme (CIS) aims to procure 23 gigawatts (GW) of renewable energy generation and 9 GW of storage capacity by 2027. The CIS is likely to account for a large portion of new renewable energy capacity in the near term.

Consequently, the CIS provides an opportunity to create an industry standard that lifts investment in training, intakes of learning workers, and employment of disadvantaged groups across the renewable energy sector.

DISCUSSION

Procurement targets for projects can evoke strong reactions from industry. Stakeholders consulted highlighted a range of issues and unintended consequences that have occurred in the past. If employment and/or training targets are to be applied for clean energy, they need to effectively address legitimate concerns:

- Is there sufficient supply of qualified or trained First Nations workers to meet the target?
- Will targets drive 'accounting' exercises in which projects find ways to meet targets without implementing real changes that lead to better long-term outcomes?
- Will targets lead to a focus on low-skill jobs instead of a wider change that increases jobs across skill levels including trades, professions and managers?
- Will targets narrowly focus on employment and not include First Nations businesses (which can be a superior source of on-going employment)?

There are also differences in labour requirements between technologies, especially between solar farms and wind farms. Solar farms have much higher levels of entry-level jobs which are more amenable to employment targets, whereas wind farms rely more heavily on VET-qualified labour (e.g. Certificate III construction jobs such as concreters, steel fixers etc) which takes more time and requires building a pipeline of candidates. In addition, our analysis has highlighted there are variations in the First Nations populations across the REZs.

The risks highlighted are real but could be addressed through a 'coordinated flexibility' approach which includes some of the following elements:

- Minimum First Nations participation benchmarks (e.g. 1.5%) for the CIS with flexibility for implementation on stronger targets and timing at REZ or state level
- A requirement for each state to develop a schedule of targets for major REZs over time through Renewable Energy Transformation Agreements being negotiated for the CIS
- Applying First Nations employment targets to solar farm construction in combination with labour market programs to create candidates for entry-level jobs
- For wind farms, overall learning worker targets for apprentices are more appropriate, with a coordinated industry program to increase the supply of First Nations candidates (see Recommendation 2)
- Flexibility in the achievement of targets which includes alternative options to achieve the goal of increasing First Nations employment:
  - Targets to be defined as 'First Nations participation' to enable either direct employment or long-term contracts with First Nations businesses for land management, facilities management etc, which could deliver stable employment
  - Structured employment or accredited training programs nominated by First Nations communities. In our stakeholder consultation, one First Nations community (in discussion with industry about the challenges of finding First Nations people with the right skills for wind farm construction) raised the concept of employing and training First Nations people in other sectors (e.g. health) if jobs could not be created directly.
- Funding for State Governments to implement support programs to assist companies meet targets. Complementary measures from the government should be implemented to increase the supply of First Nations workers and other support services required for implementation (see Recommendation 10).

ACTIONS

1.1 Mandate compliance with the National Indigenous Procurement Policy in the CIS, State Government tenders and include incentives in criteria for higher First Nations employment, training and businesses.

1.2 Incorporate the Australian Skills Guarantee within criteria in the CIS for generation, storage and transmission procurement.

1.3 Require states to set First Nations employment targets for solar farms in REZs through Renewable Energy Transformation Agreements being negotiated for the CIS.

1.4 Provide funding for the States to implement a support program to assist companies meet targets.

2. Coordinated industry program for First Nations apprentices in wind farm maintenance

'I've been very keen to get Indigenous people into the business but it's hard. It was pre-Covid, 2017-18, the organisation was looking to buy a project in (location specified) … we had discussions about a PPA, through that conversation they were talking about Indigenous employment which got us thinking about employing people in the service team in maintenance. It's permanent, it's a long-term contract and we need people so it felt like a good opportunity … It's difficult to find them, maintain them, make sure they're getting what they want out of the role. It's just so much harder. I found myself trying to dig through it. If we had a support network at industry level then we could do that". (Wind OEM 1)

'[We're] struggling to retain workforce, especially as we move into mining pockets – our pool isn't coming from the industry anymore – we've dried that up … we're lucky to get any trade attraction at all. We've just crossed 5 gigawatts under service – 10 gigawatts in next 3 years … It could be fitting and turning, auto, refrigeration mechanics – we have an apprenticeship scheme in place and other OEMs would as well …. If anybody can do a 5-day course (the Global Wind Organisation course) and climb a turbine they can become a trade assistant. We do rigging and other courses – the barrier for entry is quite low – but we don't target that directly, we use a labour hire company that specialises in wind. There's an opportunity for labour hire companies to target First Nations students with mechanical aptitude'. (Wind OEM 2)

'Wind employers out there would love to have trained Indigenous employees that they can bring to the project – but they've no idea where to find them'. (Industry representative)

RATIONALE

Voluntary industry targets and initiatives will in general work better than mandatory targets where there is sufficient commitment.

From our fieldwork, the conditions exist for a coordinated scheme with wind farm operation and maintenance firms to engage First Nations apprentices and trainees as mechanical technicians:

- There is very strong interest across the wind OEMs interviewed due to skill shortages and recognition of the opportunity to engage First Nations students
- Motor mechanics have a higher First Nations presence than many trades – these skills are highly transferable
- There are lower barriers to entry than some trades (e.g. less maths than electrical apprenticeships)
- Jobs are long-term and often on-country or 'drive-in, drive-out' within a region once wind farms are installed.

DESCRIPTION

A coordinated scheme is required to realise this opportunity which could serve as a model for other companies or employment categories. In our interviews, one wind OEM had tried previously without much success, whilst others were unsure how to proceed. There was a common belief amongst the wind OEMs that a coordinated approach across industry with employment and training service providers supporting implementation was required to make it happen.

"A collaborative approach would be more effective as an industry than any business operating in isolation – all the main OEMs would be in favour of this coordinated approach … Having some government direction will bring it to life much quicker'. (Wind OEM 3)

The scheme should be co-designed between wind OEMs, First Nations employment service providers or representatives, and education and training specialists. On the industry side, there needs to be commitments to student intake and jobs which are more ambitious than

supporting measures to create culturally safe workplaces. On the community side, there will need to be skilled, trusted intermediaries that can build a pipeline of candidates, supply pre-employment training and on-going support services.

In our view, a coordinated scheme within target regions to build cohorts of First Nations candidates for wind farm mechanical apprenticeships could demonstrate to both renewables companies and First Nations communities the opportunities and learnings on how to make collaborations work that could be applied to other regions and jobs. Pilots could be developed through the Indigenous Skills and Employment Program[3] for identified regions.

ACTIONS

- **2.1** **The Federal Government broker and coordinate consultation between wind OEMs, state governments and First Nations stakeholders to co-design a coordinated scheme for wind farm mechanical apprenticeships and identify pilot regions.**
- **2.2** **Wind OEM's develop employment and apprenticeship targets for First Nations students and supporting programs to create culturally safe workplaces.**
- **2.3** **Funding be provided through the Indigenous Employment Skills Program for a program coordinator and trusted service providers to identify First Nations students and provide wrap-around support services.**

Case study: Australian Employment Covenant

Under the Australian Employment Covenant, boards of directors committed their company to employment obligations for First Nations Australian including:

- a specified number of jobs (available jobs) to First Australian job seekers who satisfactorily completed training in accordance with the employer's training specifications
- assigning First Australian participants who are employed upon completion of training with a one-on- one workplace mentor
- ensuring that workplace culture and practices are supportive of the recruitment, retention and development of first Australian employees
- ensuring that workplace practices and terms of employment are non-discriminatory of first Australian employees

The aim of the program was to create 50,000 jobs for First Nations people. 60,000 jobs in total were created with 18,000 going to First Nations (Australian National Audit Office 2013).

[3] The IESP is combining three programs - Vocational Training and Employment Centres (VTEC), Tailored Assistance Employment Grants (TAEG) and the Employment Parity Initiative (EPI). The aim is to: • Address specific barriers to employment at the regional and local levels; • Work with local communities to identify existing and emerging engagement and employment opportunities; • Respond to emerging regional labour market needs and opportunities for both job seekers and businesses; • Target specific cohorts of First Nations Australians based on data and evidence, supplemented with local knowledge and need; and • Support employers to understand and realise the potential of the First Nations workforce.

3. Integrate First Nations employment and training targets and initiatives into housing retrofit, diesel replacement and micro-grid programs

RATIONALE

Major Australian climate and energy programs rarely integrate training and workforce development programs to align demand-drivers and supply-initiatives in line with best practice as identified by the International Energy Agency. There are opportunities to increase employment and training opportunities within energy programs focussed on First Nations Australians.

DESCRIPTION

There is significant funding for retrofit programs being tendered currently and into the future for First Nations housing. One state housing agency interviewed noted First Nations targets were used in procurement but mostly were not achieved because the program had focussed on rooftop solar and there are few First Nations electricians. Most of the employment to date had been in community engagement. The contractors were registered on Supply Nation but the pool of First Nations candidates did not currently exist to meet targets.

However, procurement targets could be used with supply-side initiatives to leverage investment in apprentices in a wider range of trades that are central to the energy transition – not just electricians but also plumbers, air-conditioning and refrigeration technicians - and energy auditors, engagement and sales/ administration jobs. Targets need to be complemented by programs to bring through groups of First Nations students, including pre-apprenticeship programs, engaging Group Training Organisations that can move apprenticeships between companies (see Recommendation 9) and an support program like the NSW Infrastructure Skills Legacy Program (see Recommendation 10). One of the key elements to the NSW Infrastructure Skills Legacy Program is embedding specialist training staff within projects to support them in identifying candidates and connecting to services.

For the trades, First Nations housing retrofits could provide a 'bridge' to the coming wave of large-scale renewable energy projects in the REZs as, for example, electrical apprentices undertake the domestic component of their apprenticeship before working on large-scale projects.

There are other programs focussed on First Nations Australians where a similar approach could create employment and training opportunities. For example:

- First Nations microgrid projects, either through ARENA or undertaken by utilities in edge-of-grid or remote community locations, could provide an opportunity for installation and maintenance technicians jobs on country
- Remote diesel replacement with solar and battery storage: installers and maintenance technicians for jobs on country.

ACTIONS

3.1 Employment and training targets be applied and implemented in the delivery of First Nations housing retrofit programs.

3.2 Funding be provided for complementary programs, including pre-apprenticeship programs, funding for Group Training Organisations (see Action 9) and an industry support program with embedded project officers, to support achievement of targets (see Action 10).

3.3 ARENA and CEFC to review procurement guidelines to incorporate employment and training targets for First Nations programs.

3.4 Investigate funding and programs for utilities to increase employment and training for First Nations people within microgrid and remote community energy management.

Case Study: Canada's Indigenous clean energy training programs

Canada has developed a suite of training initiatives that are embedded within energy programs:

Regional Energy Advisor Training Program: Training First Nations energy experts to undertake energy audits in First Nations communities and housing for retrofit. Auditors are certified through exams and seven supervised energy audits and once certified they can access grant funding. The program includes 100-hours of training (workshops, virtual, in-person) over 8 months, audit kits and stipends (Indigenous Clean Energy 2021; Indigenous Clean Energy 2023).

Indigenous Off-Diesel Initiative (IODI): The IODI is a renewable energy training program that supports Indigenous-led climate solutions in remote communities that use diesel or fossil fuels for heat and power.

The Initiative supports Energy Champions and their community teams with renewable energy training, access to expertise, and financial resources to plan and develop renewable energy projects. It was designed based on 18 months of engagement with Indigenous rights holders, First Nations organisations, and stakeholders (Government of Canada 2024).

4. "Career Trackers for Clean Energy': Long-term Industry Commitments to First Nations cadetships

"It needs to be push-pull, demand-supply for engineers – we need to work with high school students to make engineers an attractive career with them (summer school etc) and grow the supply – but then we need the renewable energy industry to start putting up an investment in a student in getting them into the sector and making it exciting. Employers need to start attending the forums, committing to cadetships, trainee programs, vacation work – the likes of BHP and Rio do this really well. They hoover up any uni stem student to go and work with them. Legal, accounting, finance, environmental – scholarships across the range. Renewable energy companies need to be doing the same.' (First Nations representative)

'I could imagine a collaboration with an industry body in partnership with CareerTrackers to promote careers in the sectors. A long-term partnership model – 26 corporate partnerships have signed 10-year agreements like Qantas, Freehills, CBD contractors, Lend lease. A 10-year commitment to employ Indigenous graduates – there's no reason this couldn't work in clean energy'. (First Nations employment services)

RATIONALE

A review of First Nations cadetships programs undertaken for NIAA in 2020 (Inside Policy 2020) concluded that whilst improvements should be made to some features of program design, these programs had a 'meaningful' impact; they increased the probability of a successful transition from school to university, course completions, employment and career progression (Inside Policy 2020: 12). Cadetships can either be provided directly by employers or by a service-provider, of which CareerTrackers is the largest. Jobs Skills Australia (2023: 220) recently noted 80% of graduates that participated in CareerTrackers were employed within 3 months of graduation.

There is high demand and shortages in a range of professional and management occupations across the energy sector if pathways can be built for First Nations students. Some of most prospective opportunities could be in creating education and employment opportunities from areas where there is currently relatively high First Nations student participation (e.g. health and safety roles, business services) and new, high-value areas (e.g. engineering jobs are going to be created across a wide range of disciplines but are experiencing shortages). Many of the actions in this report focus on renewable energy but this action would have a broader reach across the energy sector to include energy efficiency and energy management which is likely to be a larger source of stable, on-going employment than renewable energy. Whilst there is a recognition of the importance of increasing First Nations participation in the clean energy sector at senior levels, mechanisms need to be developed to translate this goodwill into organisational change.

During stakeholder engagement, it was suggested a 'CareerTrackers for Clean Energy' initiative could be developed, applying a proven model to increase professional employment opportunities for First Nations students across the energy sector. In a report commissioned by Engineers without Borders, Cunningham and Bell (2021) examined how to increase First Nations participation in engineering, highlighting a change pathway that focussed on the community (e.g. an outreach campaign to change perceptions, highlight alignment between First Nations culture and engineering etc) and a change pathway focussed on the engineering sector.

Participation in a long-term careertrackers initiative could be the focal point for the engineering profession and educational institutions to change the culture and increase First Nations participation. It is notable that a workforce strategy recently developed by Engineers Australia (2022) does not contain a single reference to First Nations people.

DESCRIPTION

Universities, energy peak bodies and their members would develop commitments to engage and employ First Nations students as cadets. Funding for service providers would be allocated to identify students and provide support services to make it easier for firms and manage interaction with schools and universities.

Long-term commitments are required from energy organisations, universities and government to make such an initiative work as it will take time to develop a pipeline of First Nations students and stakeholders have highlighted issues with stop-start funding which erodes community trust. Leadership by the Federal Government is required to create a catalyst for change by coordinating the various stakeholders, providing stable on-going funding for scholarships, service-providers and promotion of the program.

ACTIONS

4.1 Federal Government to fund and lead co-design of a First Nations Clean Energy Cadetship Program with energy industry and professional associations, cadetship First Nations representatives and universities.

4.2 Energy industry and professional associations to lead a recruitment drive for members to sign 10-year commitments to a First Nations Clean Energy Cadetship program.

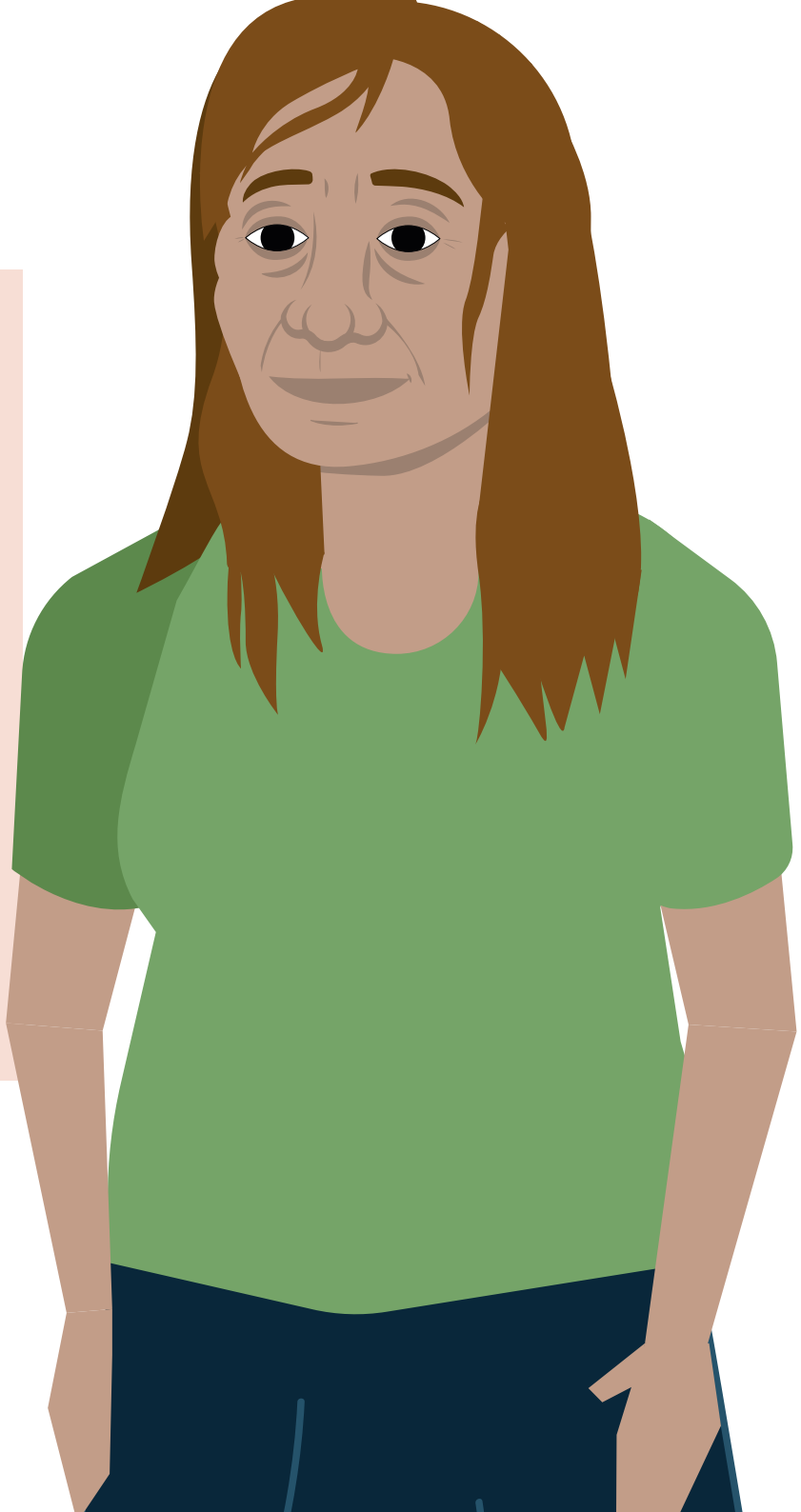
Case Study: CSIRO Summer School

CSIRO's Aboriginal Summer School for Excellence in Training and Science (ASSETS) is an example of a model on how a clean energy cadetship program could run.

Year 10 students from across Australia come together for a 9-day residential summer school and then participate in an on-going program through year 11-12 and beyond. Students work with mentors, STEM professionals and researchers, connect with local community leaders and spend time in research facilities. Students join an alumni network where they can participate in work placements and be exposed to STEM opportunities.

The program has been running since 1992 and now has 499 alumni across the country. Semi-structured interviews were undertaken with ten alumni in mid-2020 to understand the impact. The interviewees noted challenges including lack of support networks, moving to attend university, high course loads and stress, racism and sexism. Three-quarters of the interview subjects intend to have a career in STEM and 80% intend to study STEM at university.

"It was apparent that, based on the perceptions and feedback from 10 alumni, that the program contributed to high aspirations, greater understanding and confidence, stronger cultural identity, larger networks, and successes in higher education, and to some longer-term impacts such as reconciliation and creating a cohort of role models. (Banks & ASSETS Alumni 2020:1)



Strategy options: supply-side

5. Clean energy careers and Industry programs for First Nations school students

'There's a limited pipeline and investment in the pipeline: there are willing companies and there is an appetite amongst companies but they struggle to find a pipeline. Where does that start? It starts at the high-school. Indigenous students drop out at year 9 level compared to others so they aren't graduating with a HSC to get into uni, we also know students in uni have an attrition rate of 50-60% which is much higher. Four out of ten graduates, most of them will go and work for the government sector, so your pipeline goes to a funnel and gets lower and lower … We've got to do a better job at high-school to show them the opportunities in the future economy and not just inspire them but give them the tools to succeed.' (First Nations employment services)

'Students require more exposure to regional industry and potential careers, improved access to work experience and access to information and knowledge about entering employment at a much earlier age. This is of particular importance to counteract intergenerational unemployment'. (Indigenous Skills Employment Review, Inside Policy 2020b)

RATIONALE

The view of stakeholders engaged is there is generally low awareness of the clean energy industry, the types of jobs available in the sector, and the economic opportunities amongst First Nations communities. Jobs Skills Australia (2023: 205) has observed there are difficulties attracting students because there is often not a clear pathway into the sector and there is a lack of standardised curriculum. Additionally, the concept of a career pathway can be far removed from the lived experience of First Nations residents. The First Nations population is disproportionately young and a key part of the puzzle for improving socio-economic outcomes is effective engagement that increases school completions and transitions into structured training and employment for clean energy.

A greater focus on school careers and industry information programs for First Nations school students can:

- Increase exposure of First Nations students to the clean energy industry
- Raise awareness of the clean energy sector and opportunities
- Support First Nations students to better understand the connections between secondary education and future careers,
- Equip First Nations students with practical skills
- Connect First Nations role models in clean energy with students.

DESCRIPTION

Interventions at the right time – in particular during the critical juncture of the school-to-work transition – are much needed to improve exposure to career options (ISEP, 2021). Some of the activities could include:

- Outreach campaigns to raise awareness of the clean energy sector: stakeholders noted the campaign would need to be well-designed to reach First Nations students and highlight connections between clean energy and First Nations knowledge and culture. These programs should include continued exposure to the clean energy industry e.g. site visits
- Information and engagement programs to enable First Nations students to better understand the employment opportunities and pathways into these jobs
- Programs to create opportunities such as school-based apprenticeships and internships
- Equip First Nations students with practical skills such as interview practice, resume writing, and understanding the job application process
- Development of role model campaigns with the participation of industry, including paid time for First Nations employees to participate in videos, school engagement and other elements of campaigns
- Incorporate clean energy and associated founding in STEM focussed curricular, employing visual and tactical learning aids which can prove particularly effective with disengaged students.

It is important that these engagement activities include a focus in regional and remote areas where the infrastructure will be located.

The focus of engagement and outreach should include professional roles as well as trades and technicians. There are a range of professional roles, notably STEM related, finance, environmental assessments - but also social professionals such as health and safety, community engagement.

Engineers without Borders has commissioned studies to understand the pathways and initiatives for increasing First Nations engineers. One of the key issues that need to be addressed is the limited perceived relevance of engineering for First Nations students:

"A [new] professional narrative is required to promote engineering as a socially-engaged and socially rewarding profession, expanding/ balancing the current technical narrative". (Cunningham & Bell 2021: 4)

Engagement to highlight the linkages with First Nations culture and change perceptions is one of the change pathways identified. This cultural linkage is vital to students' perception of relevance to, the self-value they place on, and aspiration to be a part of, the clean energy industry. Demonstrating energy First Principles in the context of historical First Nations living is a simple example of how to improve the relevancy of the clean energy industry to First Nations students and also the value they place on their cultural knowledge in a learning or work setting.

In addition to the incorporation of these linkages in curricula is the establishment of structures to support First Nations students to "walk in two worlds" - aspire to and be given the appropriate support for educational and work success, as well as fulfilling cultural and communal duties, and working towards the aspirations more commonly associated with First Nations communities. These support structures would need to exist inside and outside of the school gate.

ACTIONS

5.1 Form jurisdictional working groups comprising clean energy industry, State Department of Education representatives and First Nations representatives to develop First Nations clean energy school programs.

5.2 Develop an information program and outreach campaign on clean energy, career opportunities and pathways which includes tailored First Nations activities.

6. School to VET transitions: Traineeships and Apprenticeships

'But what happens between school leavers and thinking about applying for a job? If we can set up a community and pipeline of participants and applicants into a pre-apprenticeship we start to set up a pool that we can start to recruit and resource from into our apprenticeship and then further on … It's sort of this 5 to 6 years ahead thing.' (Energy network)

RATIONALE

The review of the Indigenous Skills Employment Program found that school to work and training 'continues to be a pressure point' (NIAA 2021b: 28) for First Nations students. The ISEP Review further noted:

'Co-designed training programs that aim to strengthen the transition periods between school, university, and subsequent career development and progression – particularly for young cohorts – were also viewed by many respondents as a core strategy NIAA should seek to adopt and promote through the ISEP … Respondents articulated that the creation of a training package that facilitated clear transitions between each stage of career development within the context of local Indigenous communities' needs and aspirations – including pre-employment, numeracy and literacy, bilingual translation, digital literacy, enterprise development, and ongoing post-employment programs … should also be prioritised'. (NIAA: 2021b: 52)

Jobs Skills Australia (2023: 138) has highlighted that the clean energy sector currently makes limited use of 'supported entry pathways' – only around 2,300 students commenced a school-based apprenticeship in a clean energy relevant training package in 2022. Jobs Skills Australia (2023: 220) has also noted there could be value in a program like CareerTrackers for VET pathways as well as university pathways.

DESCRIPTION

There are a range of initiatives that could be used to improve school to VET transitions for First Nations people to enter clean energy:

- **School apprenticeships, internships and trainee programs:** There are a range of models in other sectors such as the First Nations Health Worker Traineeship, Aboriginal Civil Construction Training and the NSW School-based Aboriginal Traineeship Program.
- **'Taste tester' short courses:** Another model highlighted as working well was the use of 'taste tester' – short-course training offerings for students, using community service obligation funding to run half-day or full-day offerings with a site visit.
- **Pre-apprenticeship programs:** could build cohorts of First Nations students to enter apprenticeships. Pre-apprenticeship programs help students work out if an apprenticeship is the right fit for them, learn some basic skills to assist them undertake an apprenticeship and connect them with employers. For students that don't finish school, pre-apprenticeships are a vital pathway and therefore could be extremely valuable for First Nations youth that don't complete school. Building a cohort that can support each other is also likely to increase retention. Pre-apprenticeship programs could be piloted in connection with other initiatives for the REZs and Indigenous Housing to create a pipeline of students and job offers before broadening out.
- **Building on existing programs within electricity networks:** Electricity networks have on-going apprenticeship and trainee programs. In our stakeholder consultation, some networks shared information on programs which include First Nations students. Existing programs across the renewable energy sector are in general low so the networks offer an opportunity to build on programs that are already operating.
- **Increasing First Nations representation among clean energy trainers and educators:** First Nations role models and educators who embed cultural perspectives into the curriculum and speak community languages can be an important link to improve transitions and completion of VET qualifications.

ACTIONS

6.1 Allocate funding to develop and co-design First Nations pre-apprenticeship programs for key clean energy occupations such as electricians, mechanical fitters, HVAC Technicians, welders and plumbers.

6.2 Investigate an equivalent program to CareerTrackers for school-to-VET pathways for clean energy.

6.3 Investigate expansion of First Nations apprenticeship programs within electricity networks.

6.4 Allocate funding for resourcing of regional VET facilities and courses.

6.5 Provide subsidies to employers to engage First Nations apprentices and trainees linked to completions.

6.6 Governments, training bodies, clean energy industry representatives and First Nations representatives to develop a strategy to increase the number of First Nations trainers in the clean energy sector over time.

Case Study 1: Positive Power Mob Program

Positive Power Mob was a targeted, 18-week pre-employment program at The Spot Community Services, Brisbane including a:

- 6-week 'soft skills program' (focusing on core life and work skills, physical fitness and heights/safety training)
- 12-week numeracy and literacy course at TAFE (Certificate II – Skills for Work and Training).
- Applicants then applied for the apprenticeship through the normal process.

Approximately 12 candidates in 2011 and 18 candidates in 2012 undertook the program with the majority of participants in both intakes securing apprenticeships with Energex, and others secured work with Energex contracting firms in the energy sector. Each intake only experienced 2 or 3 non-completions, most of which were due to candidates securing other employment during the program. Funding for the program was discontinued with a change in government.

Case Study 2: School-Based Apprenticeship

The NSW Department of Planning and Environment (DPE) has partnered with group training organisation HVTC on a new pilot School-based Aboriginal Trainee program (SBAT) that will see the students complete accredited training while finishing their senior studies.

The pilot program has so far seen 21 Aboriginal students secure traineeships with DPE in various locations in regional and metropolitan areas, working for business units including Property and Development NSW, Planning, the National Parks and Wildlife Service (NPWS), Water, Land and Housing Corporation, Environment and Heritage, and the Jenolan Caves Reserve Trust.

Students will receive accredited qualifications such as Certificate II in Workplace Skills, Certificate III in Business, and Certificate II in Conservation and Ecosystems Management.

Case Study 3: Elsa Dixon Aboriginal Employment Grant Program

Under the *Elsa Dixon Aboriginal Employment Grant program*, subsidies are provided to state and local government agencies for school-based apprenticeships or post-school traineeships and apprenticeships.

There are four elements:

1. **Permanent (ongoing) employment:** A one-off grant that subsidises the creation of a permanent position to employ a First Nations person.
2. **Temporary secondment:** A one-off grant that subsidises the creation of a temporary position (6-12 months) that will provide a significant skill development opportunity for a First Nations person already permanently employed in NSW or local government.
3. **School based apprenticeships or traineeship:** A one-off grant that subsidises the creation of a School Based Apprenticeship or Traineeship for a First Nations student.
4. **Post school employment element:** A one-off grant that subsidises the employment of an apprenticeship or traineeship for a First Nations student who has completed Year 12 in the previous year.

In 2022/23, 279 school-based traineeships, 18 permanent roles and four temporary secondment roles were funded across NSW.

7. Outreach engagement with First Nations students via Regional University Study Hubs

RATIONALE

The regional, rural, and remote access gap in education is widely acknowledged around Australia. Inequitable access to learning opportunities impacts the lives of many regional residents, but often impacts First Nations populations more severely due to the compounding effects of other dimensions of disadvantage such as poorer health, lower access to social and financial capital, and secure housing.

The Regional University Study Hubs (formerly Regional University Centres) play a critical role in overcoming physical barriers to tertiary education by connecting students into study hubs nationwide. Regional University Study Hubs provide campus-like spaces equipped with digital infrastructure to remove the need for costly relocation and to enable regional students to study 'in place'.

For many First Nations peoples, maintaining a strong connection to Country and to community is a priority. One stakeholder noted the intrinsic value of supporting more First Nations people into the clean energy sector: 'this connection to the broader benefit...[of] connecting to Country through protecting our planet, moving away from polluting energy generation into technologies that are much cleaner...there's something about how people are attracted to the industry'.

Regional University Study Hubs could been a useful lever for outreach to First Nations students in regions, particularly those near the REZs

DESCRIPTION

Recent Australian Government investment in Regional University Study Hubs will see the number of hubs located in or near REZ regions grow, particularly in NSW. Although hubs are not learning institutions (rather, they connect students to online courses and to their peers), the opportunity is for these Hubs to play a role in promoting clean energy related study and career opportunities.

The network of Regional University Study Hubs could play an important role in outreach campaigns and engagement to complement other initiatives, such hosting events in partnership with the clean energy industry, developing information resources on study options and employment opportunities and using First Nation testimonials to reach and inspire students. Regional University Study Hubs can also play a role in remote communities. There are also some examples of 'bush uni's' such as the Wuyagiba Study Hub in Arnhem land which teaches pre-university courses on Country.

ACTION

7.1 Develop an outreach and engagement program via Regional University Study Hubs to complement the First Nations Clean Energy Cadetship Program.

CASE STUDY

The Arnhem Land Progress Aboriginal (ALPA) Corporation runs a Regional university Centre across three sites in Arnhem Land in the Northern Territory, supporting 80 students to complete VET studies (RUCN, 2023). There is the potential for this model and its success factors – combining 1:1 academic support, administrative support, coordination of communication between employers, students, and institutions – to be applied in the context of growing First Nations participation in the clean energy sector.

Figure 11: Regional University Study Hubs within Australia

8. Pre-employment programs to create pathways into entry-level jobs in solar farms

RATIONALE

Solar farms offer the opportunity to increase employment for First Nations Australians who are unemployed or out of the labour force because of the volume of entry-level jobs in labouring, cleaning, traffic management that require only short-term training. Recycling facilities will also offer entry-level jobs opportunities.

There are isolated examples of good practice which have created jobs for First Nations people with high social benefits in communities with multi-generational unemployment. However, a coordinated program alongside mandatory employment targets is required to make this a standard feature of solar farm construction.

The importance of pre-employment training and support services to address barriers (e.g. licences, soft-skills, transport) and holistic support for First Nations job-seekers is well-established in past reviews and highlighted by employment service providers in our fieldwork.

Supporting the transition for people who have been out of the labour force for a long time (or never worked) requires 'wrap-around' services that address circumstances that can prevent individuals getting and keeping jobs (eg. housing, family, transport etc). Coordination with training, employment service providers, and community at the end of construction is important to ensure solar farm employment is a bridge to further training or employment.

There is an existing network of programs for pre-employment programs and employment service providers such as Workforce Australia (over 90,000 First Nations Australians participate in this program which provides pre-employment services) and First Nations organisations.

Alongside mandatory employment targets for solar farms, supply-side measures should be implemented including:

- funding First Nations employment service providers and/or engagement officers with links into communities that can develop a pipeline of applicants
- pre-employment training
- wrap-around service that account for the breadth of self-determinants to gainful employment; and
- the use of Group Training Organisations and post-employment support to maximise the likelihood of further accredited training and employment.

One issue identified by employment service providers interviewed for this project were disincentives to work for First Nations people due to interactions with other forms of income support such as rental assistance. As work hours increase, eligibility for payments such as rental assistance is reduced or withdrawn. Concerns that employment might not be permanent were said by employment service providers working day-in, day-out to place First Nations people in jobs to sometimes lead to reluctance to take on more employment if there was a loss of other income support.

ACTIONS

8.1 State governments to develop a pre-employment program to create a pipeline of First Nations applicants in REZs with concentrations of solar farms.

8.2 State governments to investigate opportunities to develop pre-employment programs for First Nations communities for recycling facilities.

8.3 Federal government to investigate disincentives to work for First Nations job-seekers due to conflicts with other forms of income support.

CASE STUDY: AVONLIE SOLAR FARM

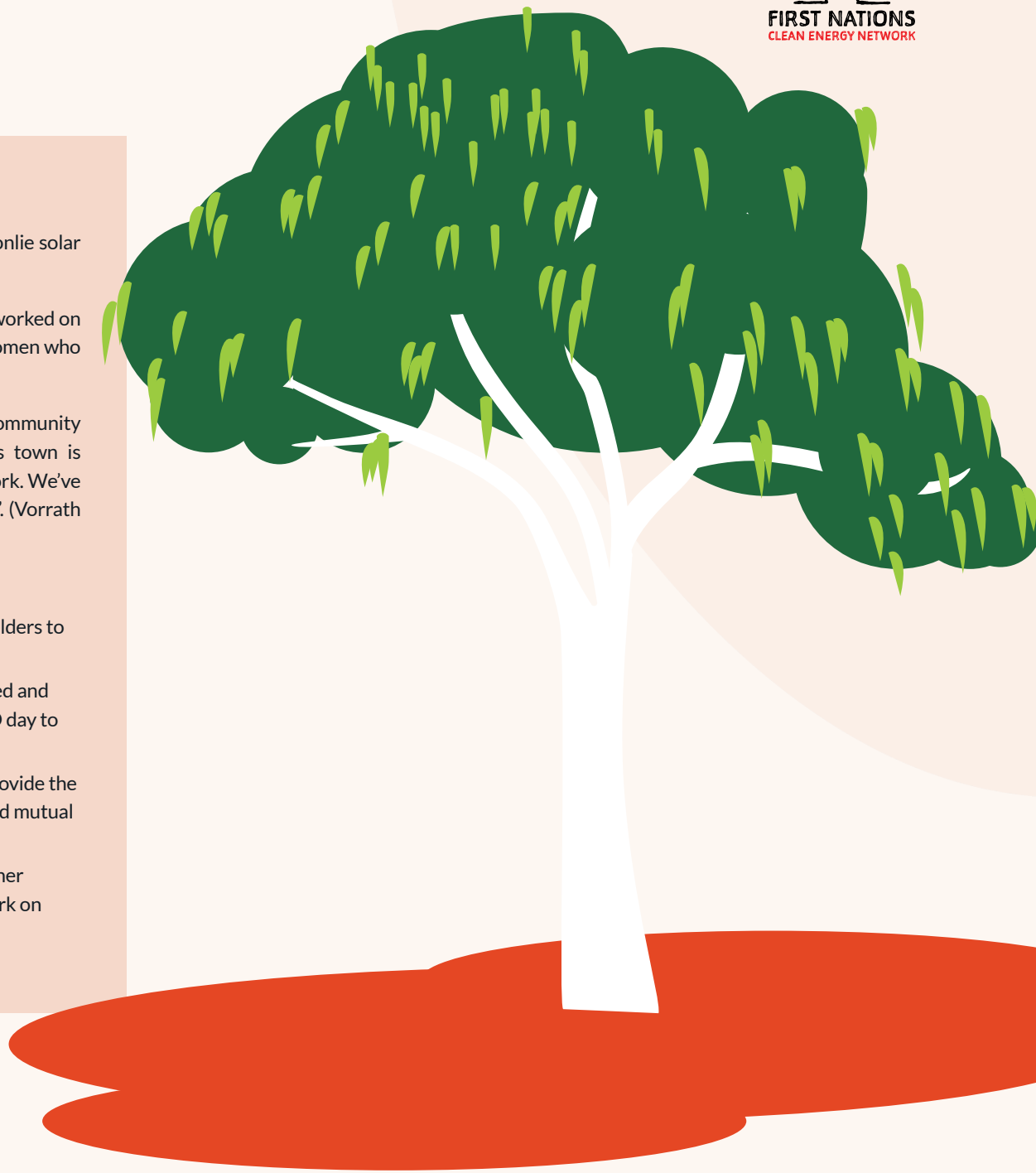
Beon Energy Solutions was the EPC partner for Iberdrola to build the 245 MW Avonlie solar farm in Narrandera, South-West NSW.

Over 30 First Nations people were employed in the construction phase. None had worked on a solar farm before, many were long-term unemployed or had never worked (e.g. women who had kids at a young age), and some had prison records.

Shaurntae Lyons, a local Wiradjuri and Yorta Yorta woman employed as a community engagement coordinator, says: "The legacy that the solar farm has left in this town is generational change. Our young people are seeing their mums and dads going to work. We've built self-esteem from zero to 20. The impacts for our community have been huge". (Vorrath 2023)

Some of the key elements enabling employment were:

- Genuine, early engagement: Beon approached the Land Council and met with elders to introduce the project and develop a relationship
- Addressing barriers to employment: Key barriers to employment were identified and addressed. Many community members did not have basic ID so Beon held an ID day to organise the workforce with essential paperwork for employment.
- Pre-Employment Program: A one-week training program was undertaken to provide the workforce with basic employment skills, knowledge, and to build confidence and mutual support.
- Transitioning into employment and training after the Solar Farm: 90% got another job after the solar farm. Some workers undertook a traffic control course to work on highway construction, others secured jobs at the local council.



Strategy options: enabling levers

9. Funding Group Training, focussing on the REZs and First Nations housing retrofits

RATIONALE

Group Training Organisations could play an important role within the renewable energy sector. Construction project lengths are shorter than apprenticeships and in the case of electrical apprentices they must complete domestic units in addition to working on large-scale renewables construction. Some organisations can place apprentices in other projects but firms are often reluctant to take on apprentices and there is increased risk of non-completion.

Jobs Skills Australia (2023: 209) noted: *'Some stakeholders suggested that group training models can work better in remote locations at ensuring apprentices are exposed to all the skills that their apprenticeship requires of them. There is also evidence to suggest completion rates for GTO apprentices have been higher than those employed directly by small and medium employers, including better rates for some disadvantaged groups. There is merit in further exploring group training in the context of clean energy, including whether it could lead to higher completion rates in regional areas and for historically underrepresented groups.'*

However, industry claims GTOs are often hard to access. They stated the key issue is funding certainty and market volume and that GTOs can be reluctant to extend their activities into new sectors and regions without funding certainty.

In addition to the REZs, a tender for GTO's could play a role in enabling First Nations apprentices for First Nations housing retrofits. A GTO could de-risk the use of First Nations apprentices and support implementation of targets through procurement rounds. GTOs could also place apprentices on solar and wind farms as these developments come on-line after or before undertaking domestic placements.

One First Nations training specialist said they had found 'mob don't like GTOs' because there is less direct connection to the employer, which should be investigated further in any program development.

DESCRIPTION

Industry demand could be pooled through a tender to support companies meeting apprenticeship and First Nations targets. A tender for GTOs would create funding certainty and reduce the transaction costs for industry. The tender could be for a single GTO or multiple GTOs in different locations across a REZ.

In First Nations Housing, Group Training in combination with other programs to create the supply of students would also facilitate and enable apprenticeship opportunities for First Nations school-leavers. Blended apprenticeships across First Nations housing retrofits and large-scale renewable energy could be trialled.

ACTION

9.1 State Government agencies to investigate tenders for GTOs as part of the delivery of REZs and First Nations housing retrofits.

10. Fund an Industry Support Program for implementation of First Nations employment and training commitments

RATIONALE

Even with measures to increase the supply of First Nations Australians and lift industry commitments, it is likely to require facilitation to implement change in practice. Renewable energy firms are under enormous time pressures to deliver projects and are experiencing skill shortages. The Clean Energy Council has acknowledged a 'persistent disconnect' between the renewables industry and First Nations service providers in Australia (Jobs Skills Australia 2023: 230). An industry support program is likely to be required to enable the industry to meet First Nations targets.

DESCRIPTION

The NSW Infrastructure Skills Legacy Program is a good model of a program that provides industry support alongside employment and training targets. It began as a voluntary program piloted across 20 projects, but has become standard practice for major government infrastructure projects and is now mandatory. To date, projects have on average exceeded most targets including an average of 26% apprentices and 7% First Nations employees (Department of Education 2024).

Some of the key elements includes:

- skills, training and diversity targets based on contract value (e.g. 20% of the trades workforce are required to be apprentices, 20% of workforce must be learning workers, 2% of the trades workforce must be women)
- Mandatory application of the Aboriginal procurement policy which includes 1.5% First Nations business participation and employment
- The program embeds specialist officers within projects to facilitate recruitment, sourcing of training and other services towards achievement of diversity targets.

One of the key elements of its success, explains Gail Silman (then Manager, Infrastructure Skills Legacy Program) is the employment of a project officer for the contractor: *'They had a mandate to report to us on a monthly basis about barriers, progress and what was needed to achieve the targets … Often contractors they say we're builders, I don't have the capacity to achieve these targets . The project officer works with the principal contractor and all the sub-contractors – builds their learning workers, apprentices, women and First Nations. What we've found is putting those enablers in place has built the capacity – many of them have gone on to be employed by those companies and their thinking has shifted.'*

ACTION

10.1 The Federal Government to provide funding for the development of an industry support program, including a network of specialist officers to be embedded in projects to support delivery of employment and training targets.

Strategy options: Cross-cutting

11. Building the capacity of First Nations Organisations, Networks and Businesses

'It's just the capacity they have in terms of their own organisations …The role (First Nations renewable energy engagement) would be a broader role about how renewable energy projects are being built on their country – longer-term employment, business opportunities – people feel over-engaged so if they can have someone responsible for it across the solar farms … broader than just employment, it's community benefit funds and so on.' (industry stakeholder)

RATIONALE

Past reviews have concluded First Nations organisations generally deliver better results for First Nations communities in delivery of services. Both industry and First Nations stakeholders interviewed for this project highlighted a lack of resources and capacity amongst First Nations organisations as an issue in a variety of contexts including representative bodies, employment service providers and businesses.

One of the key measures identified by The Productivity Commission's Overcoming Indigenous Disadvantage review (2020, p. 129) to increase employment is to support the development of First Nations businesses who employ more First Nations people than non-Indigenous businesses. Stakeholder feedback consistently highlighted issues with resourcing and capacity to win tenders for work.

Other stakeholders highlighted the importance for First Nations communities to learn from each other and the power examples and models that have been implemented by other First Nations communities have for improving confidence and learning.

DESCRIPTION

The Productivity Commission notes the shift in funding and decision-making to Aboriginal Community Controlled Organisations (ACCO's) has been 'patchy' (2023: 41). Funding arrangements need to provide certainty to enable strategic planning, full cost-recovery for holistic services (which can be more expensive) and investment in infrastructure.

Funding for programs is required to increase the capacity of First Nations organisations to engage effectively with the clean energy sector, governments and other actors in the clean energy transition.

ACTIONS

- **11.1 The Federal Government to fund a network for knowledge sharing between First Nations organisations on clean energy, including good practice employment and training outcomes for First Nations people in the renewables sector.**
- **11.2 The Federal Government to increase funding to develop the capacity of First Nations businesses to tender for clean energy contracts.**
- **11.3 State Governments to expand funding for apprenticeship-to-business training to increase the formation of First Nations small businesses and contracting.**
- **11.4 State and Federal governments to provide funding for First Nations groups to access specialist advice, directly through hiring specialist staff or independent third-party advice where necessary.**

12. Building cultural competence in the renewable energy sector

RATIONALE

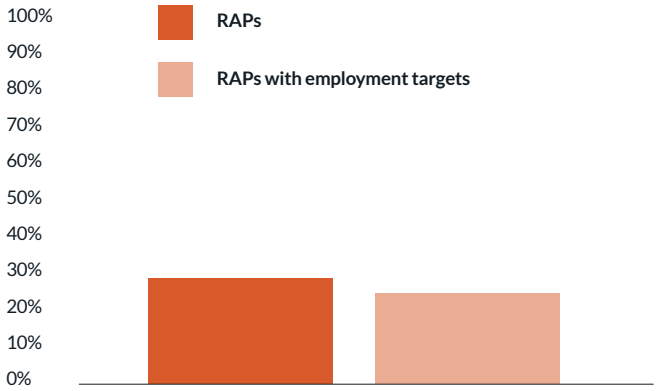
'I know for a fact in the clean energy industry they're really insular in the way they go about building and designing projects … They purposefully don't engage widely and that includes recruitment and subcontracting. They like to recruit staff themselves – 100% in house – but that doesn't help with outreach to Aboriginal communities. There's a lot of goodwill – and badwill – how do you translate that and do it at scale?', (First Nations representative)

'The CEC and the AHC advised that the employment of First Nations people across the clean energy sector is low. The two councils consider there is a "persistent disconnect" between industry and established dedicated First Nations service providers in recruitment, labour hire and community consultation'. (Jobs Skills Australia 2023: 230)

'We are going round and round and round. We've been talking for a couple of years with no tangible outcomes and we're burnt out'. (First Nations community leader, Central-West Orana REZ forum)

A shift in industry culture is fundamental to materially improving workforce outcomes for First Nations people and communities. Our research found only 1-in-4 solar and wind companies listed in AEMO's project pipeline have a Reconciliation Action Plan (RAP).

Figure 12: Coverage of Renewable Energy Developers, Reconciliation Action Plans (%)



Note: Internet searches were conducted for RAPs amongst 49 solar and wind firms listed in AEMO's project pipeline (AEMO 2024). Where RAPs were found, they were checked for employment targets.

Consistent with the findings in the Clean Energy Council's (2024) best practice guide to engaging with First Nations communities, stakeholders reported the industry too often lacks experience and understanding of First Nations people. As with the CEC guide, our engagement also commonly found low trust and building frustration with the renewable industry amongst First Nations communities.

Whilst this is much broader than employment and skills, cultural change is required to create culturally safe workplaces and organisations that provide career paths for First Nations Australians.

DESCRIPTION

To shift the culture of the industry to one that has a genuine commitment to materially impacting First Nations communities, a number of pathways should be considered:

- Governments and First Nations communities establish formal partnerships and shared decision-making apparatus, especially where governments and their agencies are key decision makers (e.g Renewable Energy Zones) to create meaningful and ongoing relationships with First Nations communities
- Incentivise cultural responsiveness and competency for clean energy organisations which receive government funding or tenders through levers such as mandates, tender criteria (evaluating the current level or steps towards cultural competency) and funding for activities to improve cultural competency
- Collective communities of practice be established between governments, clean energy industry representatives, First Nations communities, and other more experienced industries.
- Enhancing RAPs and industry agreements to focus on setting aspirational targets (e.g material impact on a Closing the Gap target within a specific community, and embedding a commitment to support these First Nations outcomes).

As with any significant change within a business or government-wide scale, buy-in is fundamental, therefore improved practices that focus on broad and deep changes that embed First Nations outcomes as core business are required.

Stronger external drivers from government agencies and cultural change across the industry are required as a key component of improving employment and training outcomes.

ACTIONS

12.1 Encourage RAPs and equivalent mechanisms within the clean energy sector which set organisational targets on First Nations outcomes.

12.2 Incorporate incentives and requirements for cultural competency in renewable energy procurement.

12.3 Establish a national knowledge sharing network with participants from the clean energy industry, other relevant industries and community representatives to facilitate coordination and capacity-building.

Conclusion

It is very sobering to realise that employment participation amongst First Nations Australians has not materially increased across the past three decades. The waves of development that have occurred during those decades on First Nations Australians land have not translated into jobs for First Nations Australians – let alone stable employment, careers and wealth development. With the speed at which the energy transition is moving with plans for large-scale deployment in next few years, there is a risk this could happen with the energy transition – notwithstanding the goodwill and intent of many in the clean energy sector.

There is a major opportunity for the REZs to contribute towards Closing the Gap targets on education, training and employment. First Nations populations in the REZs are higher than average. In particular, there is a generational opportunity to change the socio-economic position of First Nations people in the REZs as half the population is aged 19 years or below. Developing First Nations people with the skills to work in the clean energy sector can contribute to addressing the labour shortages that could inhibit growth of the sector.

However, as the prolonged stagnation in employment participation of First Nations Australians demonstrates, it will not happen on its own. Both industry and First Nations communities are looking for a coordinated strategy that can make the opportunities a reality.

Leadership from Federal and State Governments is required. There are major structural barriers that need to be addressed, but there are real opportunities to create jobs and careers for First Nations Australians in the energy transition with the right policies, programs and collaborations.

It is time for a First Nations clean energy jobs strategy to seize the opportunity and ensure clean energy does not go the way of past development and improves the lives of First Nations Australians.

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Appendix 1: Detailed profile of First Nations People in the REZs

Table 8: REZs in the Study
Note: REZs without clean energy workforce demand projections data were excluded as were Offshore Zone REZs.

JURISDICTION	REZ
New South Wales	N1 North West
	N2 New England
	N3 Central-West Orana
	N9 Hunter
Queensland	Q6 Fitzroy
	Q7 Wide Bay
	Q8 Darling Downs
	Q9 Banana
South Australia	S1 South East SA
	S3 Mid-North SA
	S6 Leigh Creek
	S8 Eastern Eyre Peninsula
Victoria	V2 Murray River
	V3 Western Victoria
	V4 South West Victoria
	V5 Gippsland
Tasmania	T2 North West Tasmania
	T3 Central Highlands

The analysis is based on study areas combining the REZ extents and a 10 km buffer zone around the REZ. This was done to capture the potential workforce who are able and willing to travel to their place of work. For the purposes of this chapter, 'REZ' refers to the REZ and its surrounds.

A note about the analysis: The figures are based on ABS Census data for the Statistical Areas Level 1 (SA1) relevant to the REZ boundaries. SA1s form part of the ABS' structure for the collection and dissemination of statistics and are designed using multiple criteria, including resident population, Aboriginal and Torres Strait Islander population, and urban and rural character.1 While SA1s do not aggregate nor disaggregate to REZ boundaries, they are sufficiently spatially detailed to support the following analysis. In some cases, the SA1 area overlaps with metropolitan regions which results in higher numbers.

Population

The resident population across the REZs is highly varied (Figure 13). The top three REZ and surrounds with the highest population recorded by the 2021 ABS Census are: Mid-North SA (South Australia),2 Hunter Central Coast (New South Wales), and Darling Downs (Queensland). These areas are located near large towns, and therefore have reasonable access to workforce compared to REZs located in more remote areas. This is observed in the significantly lower populations recorded in Banana, South East SA and Leigh Creek REZs and surrounds.

The proportion of First Nations people living in each REZ ranges from 1.8% in Mid-North SA (South Australia) to 22.4% in Leigh Creek (South Australia) (Figure 13).

Figure 13: Population by REZ

Note: The high population number reported for Mid-North REZ is due to this REZ's 10 km buffer overlapping with Adelaide City.

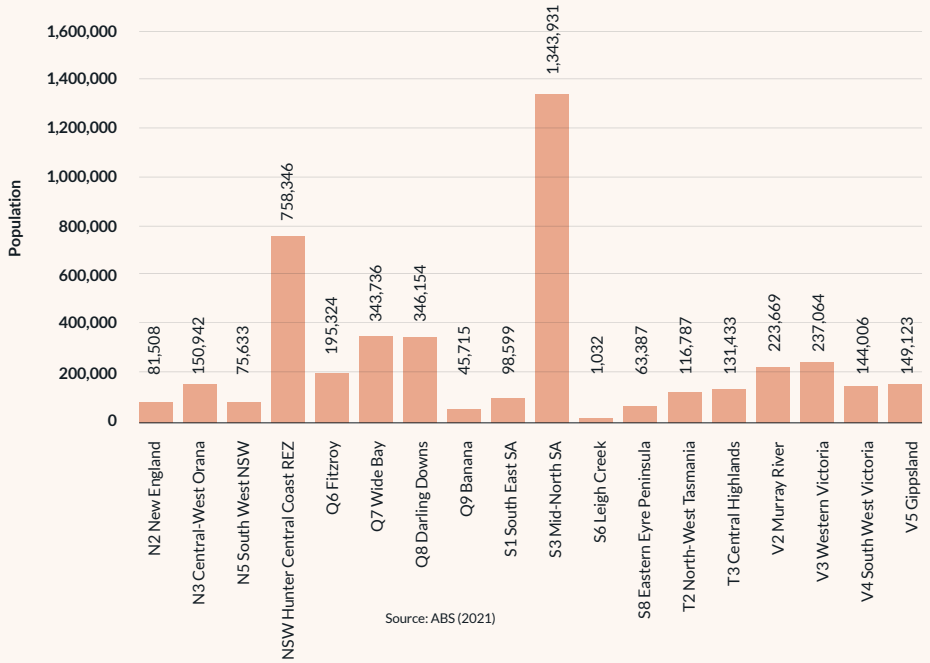
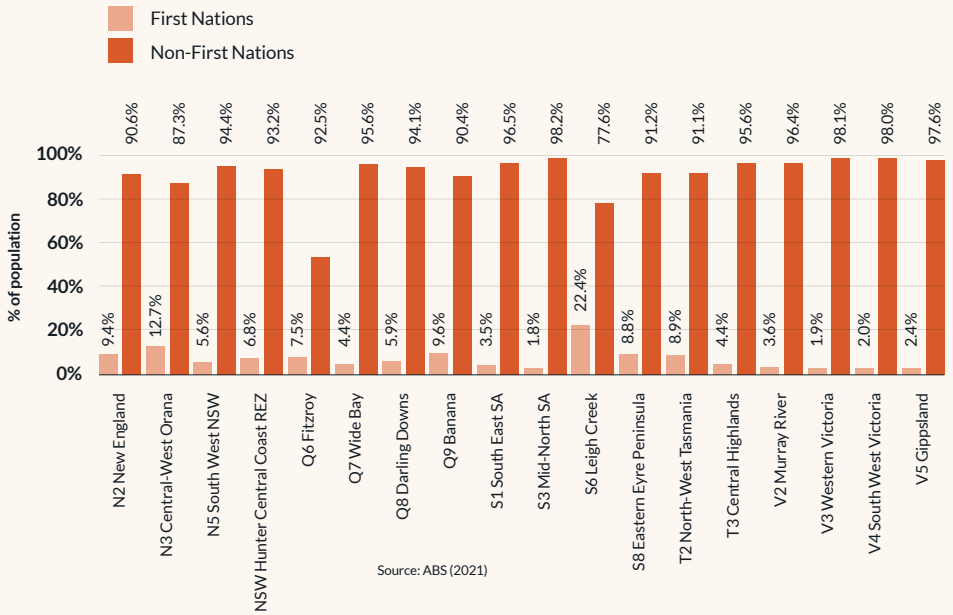


Figure 14: Proportion of First Nations residents by REZ, 2021



In New South Wales, where most of the REZ development is planned to occur, an average 7.7% of the REZ populations identify as First Nations peoples. The New England REZ and Central-West Orana REZ have some of the highest proportions of First Nations population, at 9.4% and 12.7% respectively.

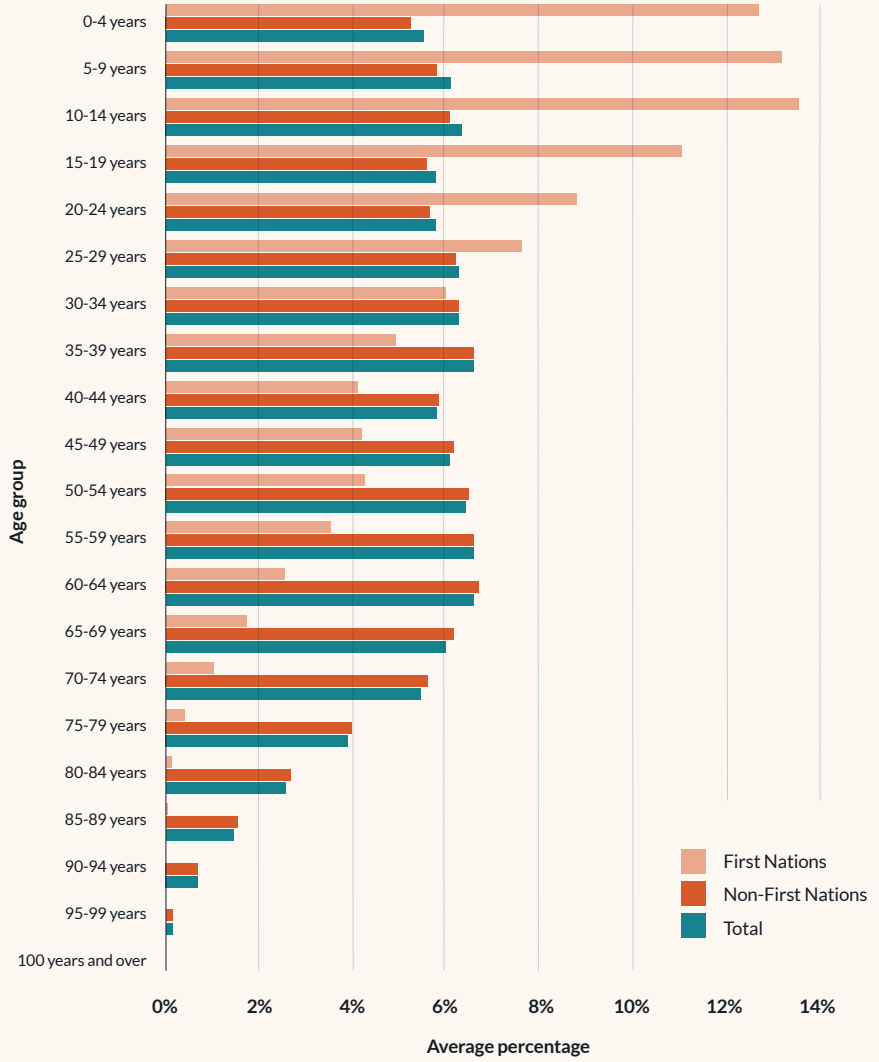
Variation in the resident First Nations workforce in each of these areas should be considered when setting job targets, and what is achievable given social and economic trends particular to the region.

Age

Overall, the analysis shows a much younger age profile of First Nations residents in the REZs and surrounds compared to the wider resident population (Figure 16). On average, just over half of all First Nations residents in the REZs are aged 19 years or under, compared to just under 24% of the total resident population represented in this age bracket.

Jurisdictional analysis shows that on average, the REZs in Victoria and Queensland have the largest proportion of First Nations residents (55% and 53% respectively) aged 19 years or under, compared to the New South Wales (49.2%), South Australian (49.6%), and Tasmanian (46.4%) average.

Figure 15: Age Distribution, REZ average, 2021



Source: ABS (2021)

The large proportion of young First Nations residents suggests an opportunity for the clean energy sector to strengthen engagement with recent school leavers and the early career workforce. At the same time, the data suggests the smaller presence of First Nations mentors working in the clean energy sector, with implications for knowledge transfer, cultural competency in the workplace, and the positive influences of First Nations leadership in workforce attraction and retention.

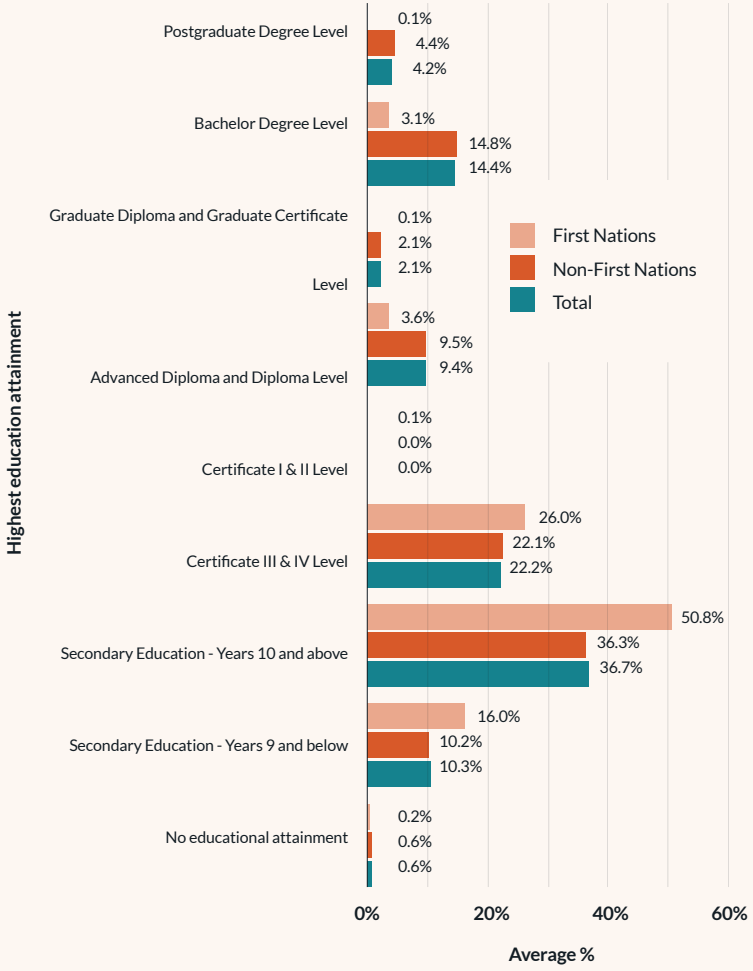
Highest level of educational attainment

Compared to the wider resident population, there is a larger proportion of First Nations residents in the REZs who have completed up to Secondary Education – Years 10 and above level (50.8% compared to approximately 36% among non-First Nations and the wider population) (Figure 17). In contrast, there are much lower proportions of REZ residents who have completed the Advanced Diploma level or higher.

A jurisdictional comparison shows that First Nations residents in New South Wales and Victorian REZs have higher educational attainment (approximately 4.5%) compared to their interstate counterparts, although the figures remain well below that of the non-First Nations (14.8%) and wider population (14.4%).

The top three REZs by proportion of First Nations residents with a postgraduate qualification are: Central-West Orana (New South Wales), Mid-North SA (South Australia), and Western Victoria (Victoria) – all at 0.2%.

Figure 16: Population by highest educational attainment, REZ average, 2021



Source: ABS (2021)

The disparity in higher education completion rates between First Nations and non-First Nations populations in the REZs and surrounds warrants further investigation to understand the potential push and pull factors that would encourage further vocational and higher education. Rates of completion have implications for the types of skills and specialisations that First Nations students can offer the clean energy sector upon entry into the workforce.

Post-school destinations

Several jurisdictions collect information about students' primary education and training destination in the year after completing Year 12, or after leaving school prior to attaining the minimum school leaving age.[6] The survey results offer some insight into students' motivations and influences for leaving school early and how patterns of post-school activity differ by socio-demographic attribute. The survey results are publicly reported at the state level and therefore are not as spatially explicit as the REZ-based analysis above. It is also noted that the sub-group comparison by First Nations status should be interpreted with caution, given the difference in response rates.

In New South Wales, the 2021 Post-School Destinations and Experiences Survey[7] highlighted that First Nations:

- Year 12 completers were less likely to be enrolled in a Bachelor degree than non-First Nations completers. Rather, they were more likely to be undertaking a VET certificate III, apprenticeship, or traineeship, looking for work, or not in the labour force, education or training. Interestingly, a sub-group analysis of the 2021 survey results also showed that First Nations Year 12 completers were more likely than non-First Nations completers to be in full or part-time work, potentially due to the time commitments that a Bachelor degree might otherwise demand.
- Early school leavers were more likely to be absent from the labour force, education or training compared to non-First Nations early school leavers, who were more likely to be undertaking a VET certificate IV+ or an apprenticeship.
- Early school leavers were more likely to leave school for alternative work, study, or career options, while First Nations school leavers were more likely to leave school early due to bullying.

In Queensland, the 2022 Early School Leavers Survey[8] highlighted that 58.4% of First Nations respondents were engaged in education or training (22.6%) or in employment (35.8%), while 41.6% were not in education, employment or training.

[6] Data for the Tasmanian and South Australian context was not publicly available. [7] NSW Department of Education (2022), 2021 NSW Post-School Destinations and Experiences Survey. [8] QLD Department of Education (2022), 2022 Early School Leavers Survey.

In Victoria, the 2022 On Track: Destinations of Victorian School Leavers snapshot[9] highlighted that approximately half of the 370 First Nations students who completed Year 12 went on to undertake an apprenticeship or traineeship (24.2%) or a Bachelor degree (26.9%), while 32% went into employment. A much lower proportion of First Nations early school leavers enrolled in a Bachelor degree (2.7%). 20.5% of First Nations early school leavers were looking for work in the six months post- school leaving, compared to only 4.7% of Year 12 completers. This is likely to be partially explained by the subset who enrol in a Bachelor's degree and not seeking work.

Field of Study

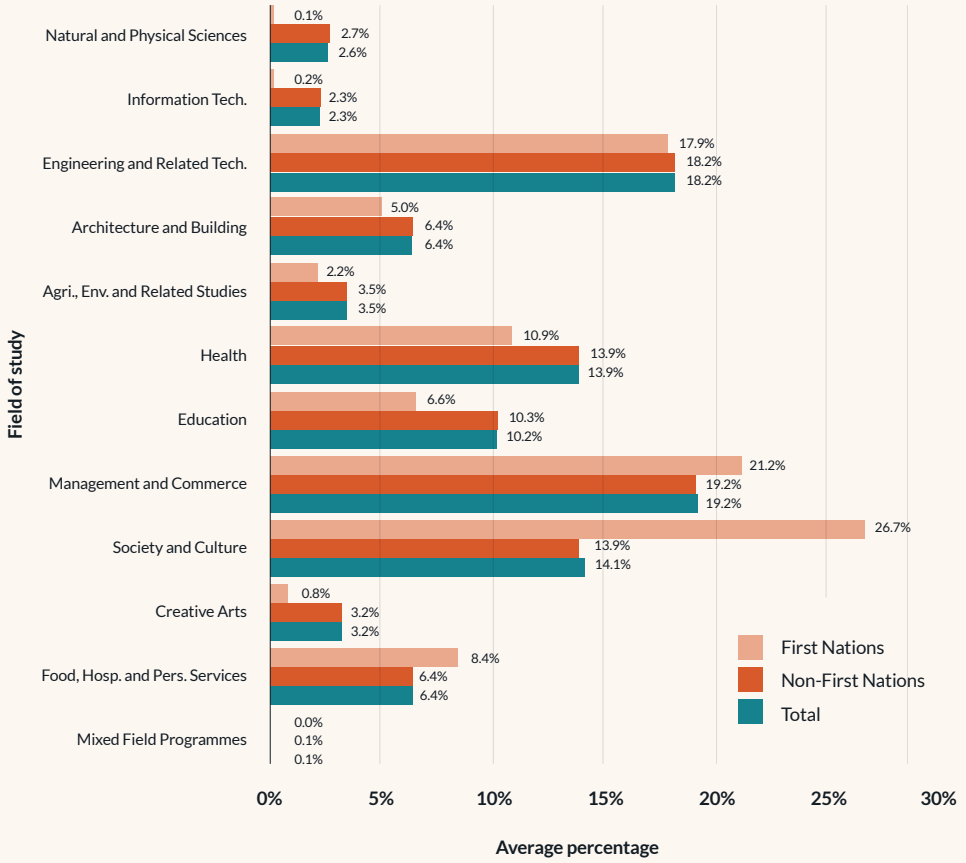
The ABS' 'Field of Study' variable is used to support a more holistic understanding of the types of qualifications – including non-school qualifications – undertaken in Australia. It can also be used to understand workforce characteristics when compared with occupation and industry of employment.[10]

In 2021, the top three fields of study among First Nations REZ residents with a non-school qualification were: Society and Culture (studied by 26.7%), Management and Commerce (21.2%) and Engineering and Related Technologies (17.9%) (Figure 18).

Engineering and Related Technologies is particularly relevant to the potential pipeline of the First Nations clean energy sector workforce. Banana REZ in Queensland has the highest proportion of its First Nations residents who have studied Engineering and Related Technologies (38.2% of its 3,800 First Nations residents).

While the evidence suggests that there are currently few First Nations people with qualifications aligned with the clean energy sector, facilitating reskilling or upskilling will be one way to bolster First Nations clean energy sector employment.

Figure 17: Population by field of study, REZ average, 2021



Source: ABS (2021)

[9] Victorian Government (2023), On Track 2022: Destinations of Victorian School Leavers. [10] ABS (2021), Non-school qualification: field of study (QALFP).

Labour force status

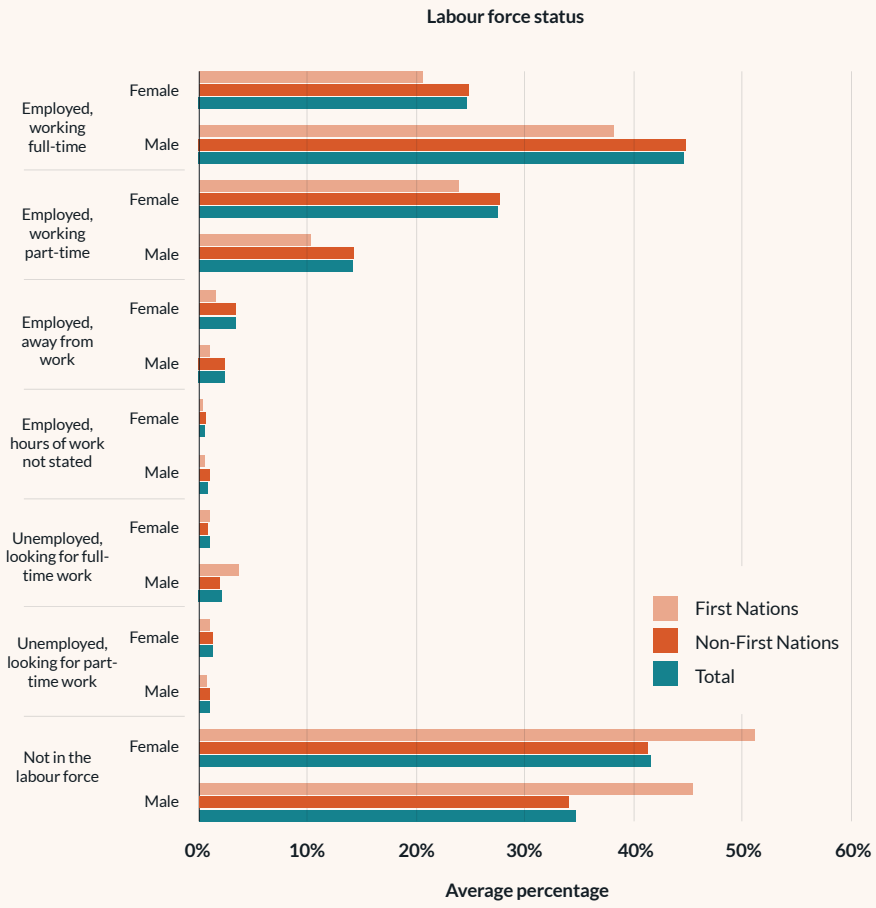
Compared to the wider resident population, there is a higher proportion of First Nations men (45.4%) and women (51.1%) who are not in the labour force, and a lower proportion of First Nations men and women who are employed full or part-time (Figure 19). Lower workforce participation among First Nations men and women is also evident across other employment categories.

The gender divide in the employment category is similar between First Nations and non-First Nations REZs populations, with higher male representation in full time employment and higher female representation in part-time work. A higher proportion of First Nations males are unemployed and looking for work compared to females.

An analysis of labour force status by gender across the REZs shows that South Australian REZs have the highest proportion of First Nations residents who are not in the labour force (59.8% females and 55.6% males).

Determining the drivers of low workforce participation - whether that may be family, cultural, health - will be useful to understand the potential to shift people into the workforce and what is required. Interventions to increase labour force participation can potentially include education and jobs pathways, accommodation measures, and consideration of the broader suite of social infrastructure that can help to rebalance gendered patterns of workforce participation.

Figure 18: Population by labour force status and gender, REZ average, 2021



Source: ABS (2021)

Occupation of employment

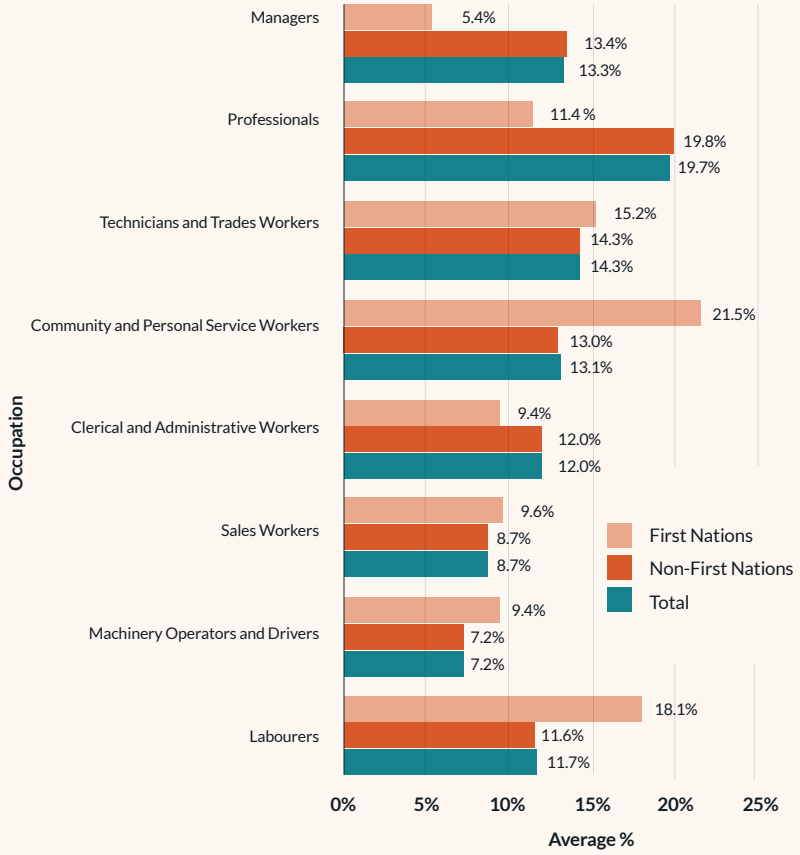
An occupational analysis shows there is a higher than population average proportion of First Nations REZ residents employed as Community and Personal Service Workers (21.5%), Labourers (18.1%) and Technicians and Trades Workers (15.2%) (Figure 20).

With the exception of Queensland, the most common occupation of employment for First Nations REZ workers was Community and Personal Service Workers. In Queensland, the most common occupation was Labourers (23.3% of First nations workers).

In contrast, there were significantly lower rates of First Nations employment in Managerial (5.4% compared to 13.3% in the wider population) and Professional (11.4% compared to 19.7% in the wider population) occupations.

Broadening First Nations participation into professional roles within the clean energy sector will need to be a longer-term aspiration if the sector is to grow its First Nations workforce. In the short term there is potential to transition First Nations Labourers, and Technicians and Trades Workers into the clean energy sector by upskilling and/or reskilling initiatives.

Figure 19: Population by occupation, REZ average, 2021



Source: ABS (2021)

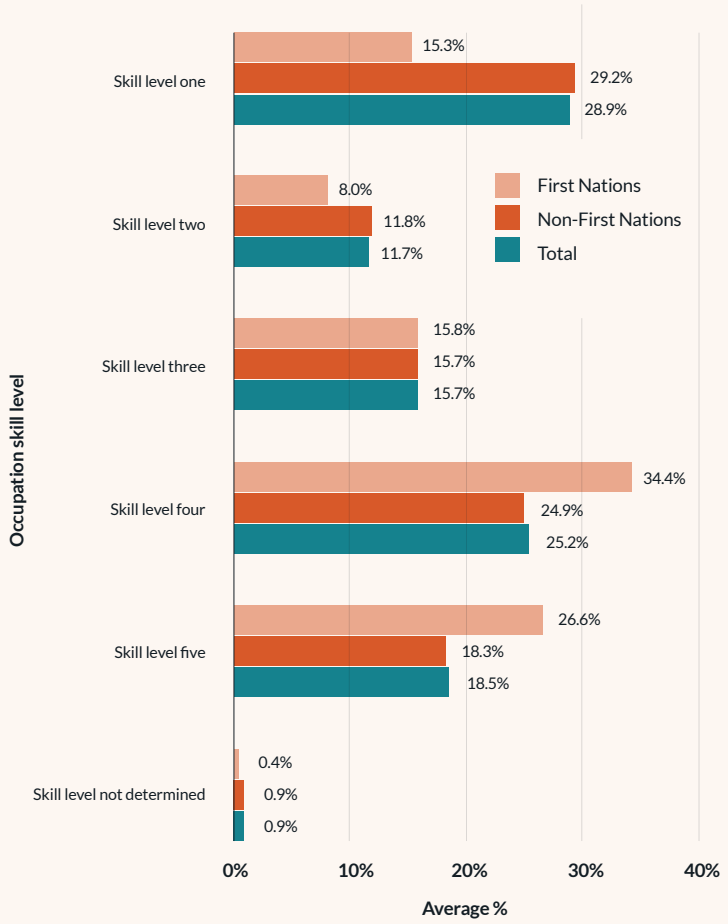
Occupation of employment by skill level

The ABS 'Occupation skill level' variable describes the skill level of a person's occupation, where Level One is the highest level of skill and Level Five is the lowest level of skill.[11] The analysis illustrates that across the REZs, employed First Nations workers are skewed to the lower skill levels four (34.4% compared to 25.2% among the total population) and five (26.6% compared to 18.5% of the total population) (Figure 21). This trend is inversed when examining the relative proportions at the higher skill levels one and two.

The top three REZs with the largest proportion of highest-skilled First Nations workers are: South West REZ (26.1%), South West Victoria (25.2%), and Mid-North SA (21.6%). Noting that level of skill is derived from the characteristics of the person's occupation rather than the individual's skill level, these statistics align with the earlier occupational analysis, which found that these three REZs also had the highest proportions of First Nations Managers and Professionals.

A focus on upskilling initiatives may help to rebalance the proportion of lower and higher skilled First Nations employees in the REZ regions and surrounds. As this measure is directly linked to the occupation of employment, closer attention to the factors of occupational selection and potential barriers to entry is warranted.

Figure 20: Population by occupation skill level, REZ average, 2021



Source: ABS (2021)

[11] ABS (2021), *Occupation skills level (OCSKP).*

Employment by industry

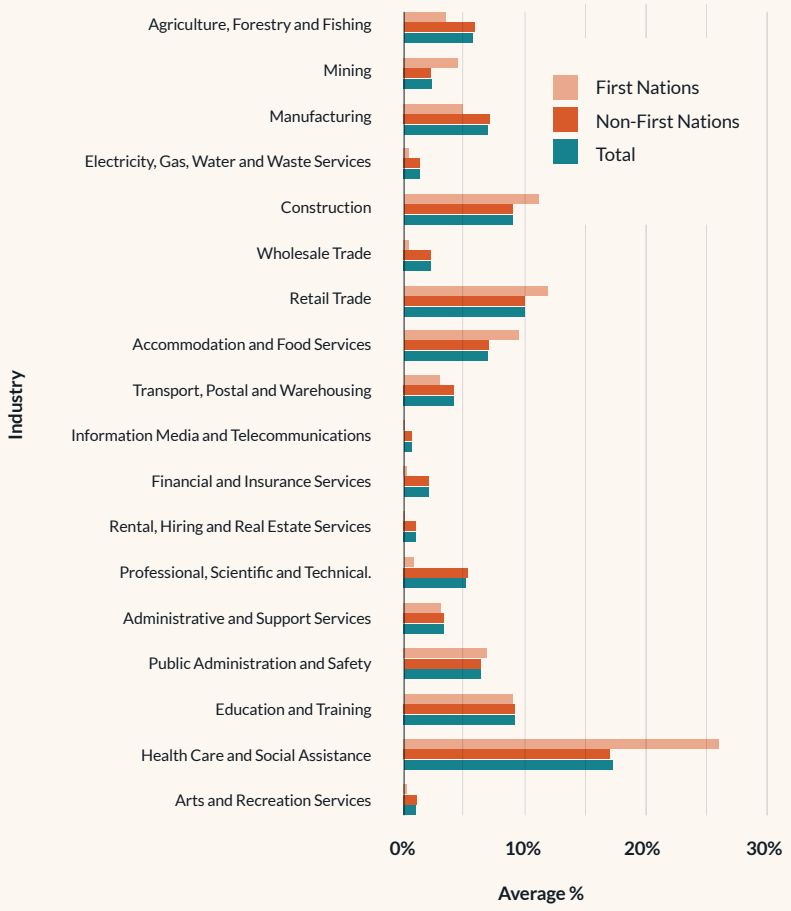
An analysis of employment by industry in the REZs indicates that First Nations employees are predominantly employed in the Health Care and Social Assistance sector (26.1%), followed by Retail Trade (12%) and Construction (11.2%) (Figure 10). The distribution of employment by industry for non- First Nations people is broadly aligned.

In terms of alignment with core clean energy sector skills, New South Wales and South Australian REZs were home to the highest proportion of First Nations people employed in the Professional, Scientific and Technical Services industry (both 1.2%).

Targeted education and training programs for First Nations students and workers may help to raise the proportion employed in core clean energy sector sub-industries, including many under the umbrella of Professional, Scientific and Technical Services.

First Nations construction workers will have an important role in filling construction demand for major renewable projects. These jobs typically have a 1-2 year timespan before the project transitions to the operational and maintenance phase. Nonetheless, there is an opportunity for First Nations construction workers to upskill as construction managers or other managerial roles.

Figure 21: Employment by industry, REZ average, 2021



Source: ABS (2021)

Appendix 2: Methodology

The methodology for this study included a combination of desktop review, quantitative and qualitative research. The key elements were:

- A desktop review of available data, reports and academic studies on First Nations employment and training participation, evaluations of policy and programs and any First Nations clean energy initiatives
- Quantitative analysis of the First Nations employment, students and persons in unemployment or not in the labour force in the REZs
- Qualitative stakeholder engagement including semi-structured interviews, a community workshop in the Central-West Orana REZ and Yarrabah and an online workshop with employment service providers across Western Australia and Queensland.

Qualitative stakeholder engagement

- Semi-structured interviews were undertaken to get perspectives on the current situation for First Nations people in clean energy, the barriers and opportunities to increasing participation and actions to be considered for recommendations.
- A total of 27 interviews were undertaken with:
  - First Nations representatives;
  - Employment, training and recruitment specialists;
  - renewable energy personnel in construction and operations and maintenance roles in solar, wind and battery storage and an industry representative;
  - government officials in NSW, Victoria, Queensland and Western Australia working in energy, education and training and economic development roles;
  - electricity utilities in NSW and Western Australia;
  - union officials;
  - TAFE staff.
- A workshop was held with community representatives, renewable energy developers, TAFE staff, NSW Department of Education staff and other training specialists in Wellington, NSW (Central-West Orana REZ). The workshop was facilitated by Indigenous Energy Australia over a day and a half across a broad range of topics relating to renewable energy. ISF facilitated a discussion on employment and skills as one session within this wider workshop.
- The methodology and results for the online workshop and community workshop in Yarrabah are described in more detail in Appendix 4.

Quantitative analysis

The Renewable Energy Zones (REZs) are the key sites for large-scale renewable energy along the Eastern States; Queensland, Victoria and NSW each have programs to coordinate new transmission with renewable energy generation and storage within REZs. Consequently, the way in which the REZs are developed will have a significant impact on the First Nations employment and training in renewable energy.

See Appendix 1 for the full employment and demographic profile.

Our analysis investigates the potential for First Nations employment to reach target shares of 1.5%, 5%, and 10% of renewable energy employment within a group of REZs. 1.5% is a common benchmark in infrastructure tenders for First Nations employment. 10% was nominated as a 'stretch goal' in the tender guidelines for the NSW auctions for Long-Term Energy Supply Agreements (AEMO Services 2022: 67). 5% is a mid-point between these minimum and stretch goals.

To assess the supply of First Nations people to reach employment benchmarks, there are four steps:

Appendix 2: Methodology

Step 1: estimating the First Nations share of employment in occupations aligned to renewable energy to understand the size of the current workforce in adjacent jobs that could work in renewable energy.

As clean energy or renewable energy is not defined in the Australian Standard Industry Classification, an alternative methodology is used. Based on past employment modelling, the key occupations with greatest skills alignment within the Australian Standard Classification of Occupations[12] to the clean energy sector are:

- Construction, Distribution, and Construction Managers
- Engineering Professionals
- Health Diagnostic and Promotion Professionals
- Building and Engineering Technicians
- Electricians
- Mobile Plant Operators
- Truck Drivers
- Construction and Mining Labourers
- Miscellaneous Labourers
- Mechanical Engineering Trades Workers
- Automotive Electricians and Mechanics
- Occupational and Environmental Professionals

Within the ASCO, 3 and 4-digit occupations were used. ABS census data from 2021 was used for the estimate of First Nations people in each of these occupations within each of the REZs.

The employment projections for a group of key occupations within the REZs (2030 and the peak year within each REZ) are derived from estimates by ISF based on the Step Change scenario in AEMO's Integrated Systems Plan (Rutovitz et. al. 2022). The result in the main study report on the numbers and proportions of First Nations employment in each of these occupations within the REZ as a percentage of projected employment in these occupations created by renewable energy within the REZ.

This analysis estimates the growth on the existing First Nations workforce base that would be required to achieve different employment target scenarios in the clean energy sector. Of course, a significant proportion of these workers may not move into the sector, and so this analysis under-estimates the scale of the challenge. Nonetheless, it is a starting point for understanding the level of growth required.

Step 2: estimating the size of First Nations people that could work in renewable energy in the future – the school students, the unemployed and those not in the labour force.

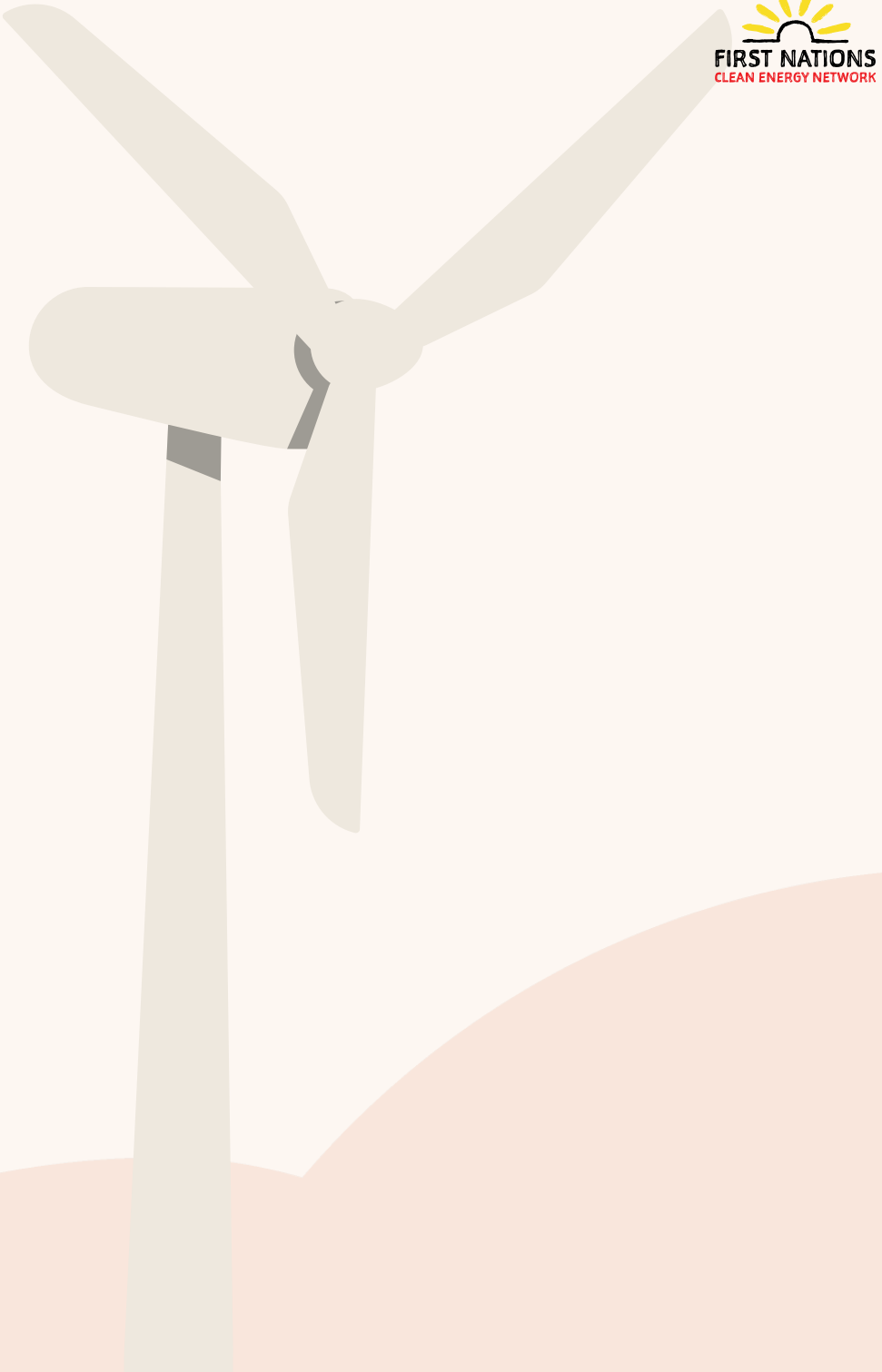
The objective of the analysis is to consider the scope for the existing First Nations secondary school-aged population to move into the renewable energy sector (Table 5). Unfortunately, our analysis of secondary school enrolment data determined it was unreliable with extremely low proportions of students relative to ABS census populations of First Nations people. Consequently, we have used census data on 15-19 year olds that self-identify as First Nations as the best available source to analyse the volume of new entrants to renewable energy that could come from young people.

The first part of the analysis estimates the volumes of First Nations young people that would enter renewable energy-aligned occupations at the current rate, which varies between 1 – 3 % ('BAU rate') across the REZs.

The second part of the analysis shows what proportion of 15-19 year olds would need to enter renewable energy aligned occupations to solely account for a 1.5%, 5% or 10%. Obviously, not all these students would go into renewable energy, but the analysis provides an indication of the potential for new entrants from First Nations students into renewable energy.

The same approach is used for First Nations people who are unemployed or not in the labour force.

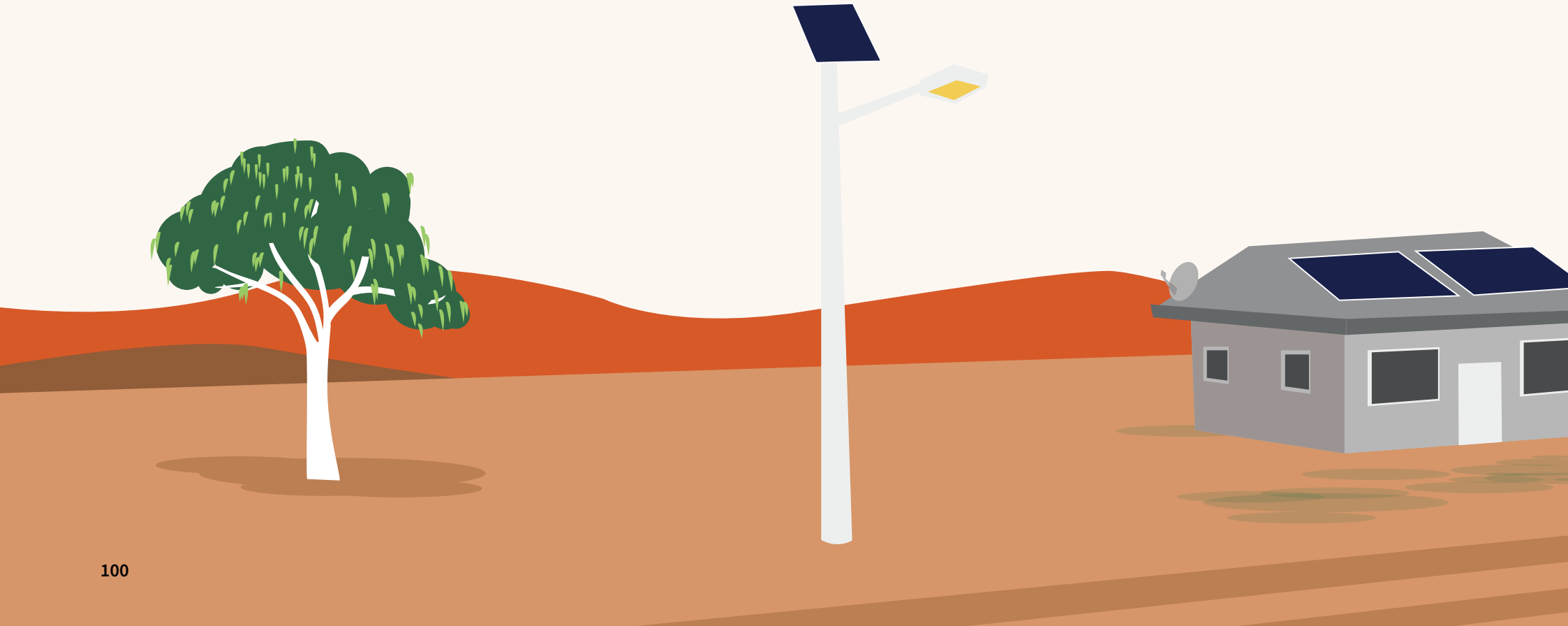
[12] ABS (2022), *Australian and New Zealand Standard Classification of Occupations.*



Step 3: integrating these sources of labour supply and comparing them with the employment volumes that would be required to achieve 1.5%, 5% or 10%.

The components of analysis were to:

a. Quantify the number of First Nations residents employed in occupations with skills alignment to renewable energy sector, 2021
b. Multiply the employment projection for renewable energy at 2030 by 1.5%, 5%, and 10% to estimate the number of First Nations workers needed to reach each target proportion
c. Subtract the number of First Nations residents already employed in aligned occupations from the employment target to estimate the shortfall
d. Add the estimated supply from First Nations youth in each REZ and surrounds based on the current participation rate – that is, by multiplying the percentage of First Nations currently employed in these occupations for each REZ to the size of the 15-19 year old cohort in the ABS census 2021
e. Add the estimated supply from those who are unemployed or not in the labour force based on the current participation rate – that is, by multiplying the percentage of First Nations currently employed in these occupations for each REZ to the size of the First Nations population who were unemployed or not in the labour force in the ABS census 2021.

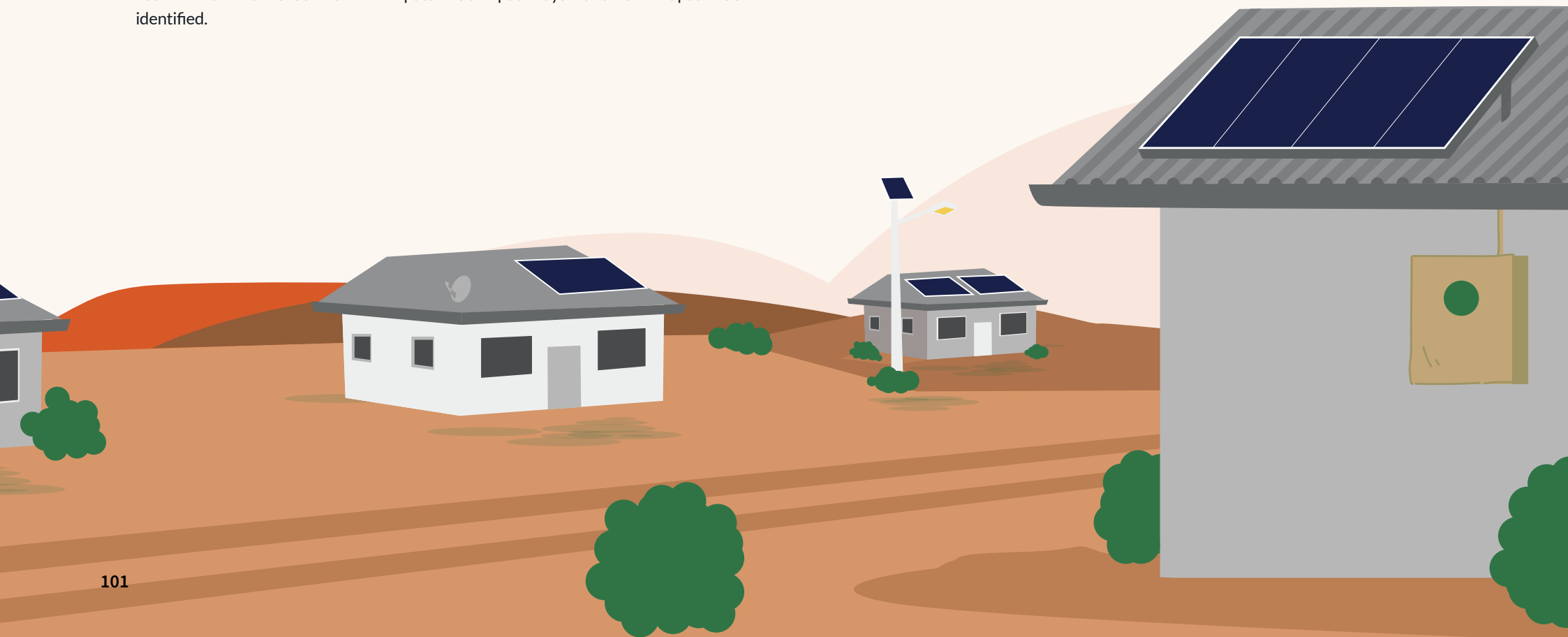


Appendix 3: Occupational Pathways

As an input to the analysis, occupations were analysed to understand where the best opportunities might lay for First Nations Australians. In part, this was a response to regular questions asking where the best opportunities lay and how to get into them and in part this was for our understanding of where to focus on recommendations.

There were two steps to this process:

- Occupations were mapped against different sections of the energy sector to understand which are the most common occupations (Table 11).
- Some of the major occupations were evaluated for fit for First Nations Australians based on current education and work patterns and pathways into these occupations are identified.



Appendix 3: Occupational Pathways

Table 9: Occupations against the different sections of the energy sector

ANZSCO CATEGORY	OCCUPATION	ENERGY GENERATION, STORAGE AND TRANSMISSION CONSTRUCTION WORKFORCE	OPERATIONS AND MAINTENANCE ROLES	SUPPLY CHAIN	ENERGY EFFICIENCY AND ENERGY MANAGEMENT
MANAGERS	Construction managers	■			■
	Logistics & procurement managers	■			
	Operations & production managers		■	■	
	Business managers	■	■		
PROFESSIONALS	Electrical engineers	■		■	■
	Industrial, mechanical and production engineers			■	
	Mining engineers			■	
	Geologists, Geophysicists & Hydrogeologists			■	
	Environmental scientists	■	■	■	
	OHS & environmental health professionals	■	■	■	
	Community engagement	■	■		
	Civil engineers	■		■	
	Finance, business, legal & policy professionals	■			
	Database Administrators				■
	Property valuers				■
	Architects				■
	Interior designer				■
	Chemical engineers			■	
	Systems engineers		■		
CLERICAL & ADMINISTRATIVE	Program/project administrator				■
MACHINE OPERATORS & DRIVERS	Earthmoving plant operators	■			
	Truck drivers	■			
	Riggers & dogmen	■			
	Process operator			■	
	Crane, hoist and lift operators	■			■

Appendix 3: Occupational Pathways

Table 9 (continued): Occupations against the different sections of the energy sector

ANZSCO CATEGORY	OCCUPATION	ENERGY GENERATION, STORAGE AND TRANSMISSION CONSTRUCTION WORKFORCE	OPERATIONS AND MAINTENANCE ROLES	SUPPLY CHAIN	ENERGY EFFICIENCY AND ENERGY MANAGEMENT
TRADES & TECHNICIANS	Electricians	■	■		■
	Electrical engineering draftspersons & technicians			■	
	Mechanical trades & technicians	■	■	■	
	Metal fittests and machinists			■	
	Mechanical fitter			■	
	Electrical instrument technician			■	
	Control room & power plant operators		■		
	Telecommunications technicians	■	■		
	Lineworkers	■			
	Energy Assessor				■
	Plumber				■
	Glazier				■
	Roof plumber				■
	Plasterer				■
	Airconditioning and refrigeration mechanic				■
	Building designers/Architectural draftspersons				■
	Wall and floor tiler				■
	Building inspector/surveyor/certifier				■
	Other building and engineering technicians			■	
	Process technician			■	
COMMUNITY & PERSONAL SERVICE WORKERS	Emergency responders	■	■	■	■
SALES WORKERS	Materials recyclers			■	
	Retail sales assistant				■
	Energy retailer				■
	Property manager/strata manager				■
LABOURERS	Building and plumbing labourer	■			
	Concreters	■			
	Electrical trade assistants	■			
	Structural steel workers	■		■	
	Building insulation installer				■

Sources: Energy generation, storage and transmission construction and O&M workforce: Rutovitz, J., Langdon, R., Mey, F., Briggs, C. (2023) The Australian Electricity Workforce for the 2022 Integrated System Plan: Projections to 2050. Revision 1. Prepared by the Institute for Sustainable Futures for RACE for 2030. Supply chain workforce: Jobs and Skills Australia (2023) The Clean Energy Generation: Workforce Needs For a Net Zero Economy. Energy efficiency and energy management workforce: Jobs and Skills Australia (2023) The Clean Energy Generation: Workforce Needs For a Net Zero Economy. Langdon, R., and Wilmot, K., Tice, J., 2024. Residential Energy Efficiency Workforce, Mapping prepared by Institute for Sustainable Futures for the Energy Efficiency Council, Forthcoming.

Table 10: Occupations and their role within the energy

ELECTRICIANS	
Demand	Electricians are in very high demand across multiple segments of clean energy - building clean energy, connecting renewables to the grid, operating and maintaining technology, and electrification in homes and businesses.
Description	Electricians install, test, connect, commission, maintain and modify electrical equipment, wiring and control systems.
Pathway	Certificate III in Electrotechnology. Electricians can add post-trade specialisations to their tool kit (e.g. training for high voltage substations, batteries). There are a wide variety of sectoral pathways including: • Residential electricians (home electrification) • Commercial and industrial energy systems • Large-scale renewable energy e.g. commissioning electricians • High-voltage technicians e.g. transmission and distribution networks, battery.
Opportunity assessment	Barriers: Electrical apprenticeship numbers have stagnated until recently and the trade also suffers from low training completions. First Nations electricians are low and there may be foundational skills issues (e.g. numeracy and maths). Opportunity: the largest source of jobs with strong employment prospects across sectors. There are some opportunities in remote and regional areas. Industry has indicated difficulty in finding suitably qualified technicians in regional or remote areas and it is cheaper for industry to employ remote technicians that can work on wind farms, transmission lines and substations and batteries (these need rapid maintenance support within 1 hour).

ENVIRONMENTAL SCIENTISTS	
Description	The environmental scientists occupational group covers a wide range of technical, social and environmental management professionals. Environmental scientists play a fundamental role in ensuring that projects minimise their impacts on the environment, communities and cultural sites of significance. They advise on and design impact mitigation strategies, management actions and restoration activities.
Demand	Environmental scientists are required during the planning stages of major construction projects. They are the key contributors to environmental impact assessments and cultural heritages impact assessment. They are also in demand during environmental monitoring, management and restoration activities that take place throughout the lifetime of the project. In the case of renewable energy lifetimes may be as long as 20 years, for mine sites lifetimes can be much longer, with considerable restoration activities required to remediate mine sites during operations and after mine closure.
Pathway	University pathway: Bachelor of Environmental Science VET pathway: Certificate II, III, or IV in Conservation and Ecosystem Management Diploma of Conservation and Ecosystem Management Advanced Diploma of Conservation and Ecosystem Management
Barriers	"Educational attainment was lowest for First Nations people in remote or very remote areas" (JSA, 2022). First Nations people are less likely to have completed training above a Certificate III (JSA, 2022) than non-indigenous people which may be a barrier to careers with university training pathways.
Opportunity	A higher proportion of First Nations people have completed training in environmental studies compared to the non-indigenous population (JSA, 2022), which may indicate the potential for career pathways within the environmental sciences field. Employment pathways into environmental science fields could be explored for First Nations people leveraging on environmental management skills and training. First Nations people are essential in identification of areas of cultural heritage and cultural heritage management planning and can play an ongoing role in this area.

Table 10 (continued): Occupations and their role within the energy

CONSTRUCTION MANAGERS	
Description	Builders, inspectors, or senior managers within the building and construction industry who apply knowledge of building, construction and sustainability systems and processes, structural principles, codes, standards and legal obligations to construction projects including high rise. Can be registered as a private certifier and supply occupancy permit (new homes) and certificate of final inspection; ensures compliance with relevant legislation (ie building code).
Demand	Construction managers are in high demand across grid scale renewable energy projects and energy efficiency and energy demand related projects such as residential and commercial building construction and major renovations.
Pathway	RII50420 - Diploma of Civil Construction Management - Civil construction project management (site based) CPC50320 - Diploma of Building and Construction (Management) - Building construction management (up to 3 storeys) CPC60220 - Advanced Diploma of Building and Construction (Management) - Building construction management (high rise qualification) A degree in building surveying or construction management - University pathway. Career paths. Builder licensing varies across States and Territories and requirements additional to the attainment of this qualification may be required. Additional or prescribed units of competency may also be required to meet builder registration requirements in various States and Territories.
Barriers	Construction managers do not feature on the list of top 30 employing occupations for First Nations people (JSA, 2022), indicating the low employment of First Nations people in this field.
Opportunity	Management and commerce is the second highest field of study for First Nations people (JSA, 2020), indicating the interest of First Nations people in management positions, however, depending on the management field of study, additional training may be required to work in construction management specifically. A significant proportion of First Nations people are employed as construction and mining labourers, First Nations people working on construction sites are likely to pick up industry knowledge that could help to serve further training pathways into construction management.

OHS & ENVIRONMENTAL HEALTH PROFESSIONALS	
Description	Occupational Health and Safety roles are required at multiple levels to ensure that worksites (construction sites, mine sites, assembly sites) and workplaces (assembly sites, warehouses, factories) are safe for workers. At entry level OHS representatives manage the day to day management of OHS risks and respond to and report incidents within the organisation. Outside of the organisation, OHS inspectors and officers manage compliance with regulated OHS procedures and management plans. OHS practitioners develop organisational and site based OHS procedures as part of business management planning.
Demand	OHS and environmental health professionals are needed to manage safe work practices in wind and solar. Construction and maintenance workers on wind farms in particular perform their work at heights and lug heavy equipment up stairs within wind towers.

Table 10 (continued): Occupations and their role within the energy

OHS & ENVIRONMENTAL HEALTH PROFESSIONALS (CONTINUED)	
Pathway	University pathway: Bachelor of Occupational Health and Safety - OHS practitioner VET pathway: BSB30719 - Certificate III in Work Health and Safety - OHS representative, Office Manager (OHS), OHS assistant BSB41419 - Certificate IV in Work Health and Safety - Work cover inspector, OHS technician, OHS officer BSB51319 - Diploma of Work Health and Safety - OHS practitioner
Barriers	Additional training in the specifics of OHS principles and practices will likely be required to transfer from a related healthcare role.
Opportunity	The community and personal service sector employs the greatest proportion of First Nations people. First Nations people working as carers, aids and health and welfare support workers may have transferable skills for an OHS and environmental health role.

COMMUNITY ENGAGEMENT PROFESSIONALS	
Description	Community engagement officers communicate complex project information, such as project timelines, locations, travel corridors, and grievance channels, to multiple community stakeholders. Community engagement officers field project related questions and record/respond to grievances. Engagement officers are highly skilled in communication, they build a relationship of trust with community and help to translate complex information in an easily understandable way.
Demand	Proposed clean energy projects are constructed on sites that are in close proximity to residential, business, and community infrastructure. Community engagement professionals are required to consult with a wide variety of stakeholders to balance clean energy project and stakeholder needs and requirements. The engagement process is more concentrated during the planning and development stages but engagement activities generally continue throughout the project life.
Pathway	No formal qualifications were identified as a requirement for this occupation. Job advertisements indicated that tertiary qualifications in public relations would be favourable but indicated that demonstrated experience in community engagement could substitute formal qualifications. University pathway for formal qualifications: Bachelor of communications (public relations).
Barriers	Additional training in the specifics of community engagement principles and practices will likely be required to transfer from a related health and welfare role.
Opportunity	The community and personal service sector employs the greatest proportion of First Nations people. First Nations people working as health and welfare support workers may have transferable skills for a community engagement officer role.

Table 10 (continued): Occupations and their role within the energy

ELECTRICAL ENGINEERS	
Description	Electrical engineers design, documentation and provide oversight of electrical related construction and installations.
Demand	Electrical engineers are in high demand in the construction of wind farms, transmission network infrastructure, electrical component manufacturing and in energy efficiency and energy demand management.
Pathway	Bachelor of Engineering Honours (Electrical Engineering)
Barriers	Very low numbers of First Nations people are currently employed in engineering professions within REZs. Higher numbers of First Nations engineers are employed in regional centres such as the Hunter. It is unclear how many of these engineers are employed in electrical professions.
Opportunity	Electrical engineering professionals are less likely to be working within regional or remotely based REZs and more likely to be concentrated in cities and regional centres.

LINEWORKERS	
Description	Several roles fall under the linesworker occupational category, including power line vegetation control workers, transmission line construction workers, and network systems maintenance workers. Each role requires different levels of training.
Demand	Extensive new transmission networks are required to allow new renewable generation to be connected to the grid. Linesworkers play an instrumental role in the construction of transmission lines and in the ongoing operations and maintenance once constructed and are in high demand in regions where major transmission lines are expected to be located.
Pathway	UET20321 - Certificate II in ESI - Powerline Vegetation Control - Vegetation control worker - Elevated platform operation, chainsaw operation. UET20422 - Certificate II in Transmission Line Construction - Transmission line assembly worker - rigging, crane operation, vehicle manoeuvring, installation of structure hardware UET40422 - Certificate IV in ESI - Network Systems - Live line worker, powerline supervisor, line worker (power systems)
Barriers	Travelling to specialised transmission tower training facilities may be difficult for First Nations people, with only one main training tower available on the east coast.
Opportunity	Several of the linesworker roles, including transmission line assembly worker and vegetation control workers, require minimal training for entry. Training is focused around safety working at heights and around powered lines and includes training in machinery operation. A percentage of First Nations people already work in similar work environments as labourers and mobile plant operators, these skills could be transferred to linesworker roles with minimal additional training.

Appendix 4: First Nations Clean Energy Jobs Strategy

Introduction

This report details the workforce provider consultation undertaken as part of a research project to support the development of a First Nations Clean Energy Jobs Strategy by the First Nations Clean Energy Network. The research has included stakeholder engagement in three key areas: Government identified Renewable Energy Zones (REZ), remote communities and industrial regions in transition to becoming clean energy hubs. The online focus group for workforce providers forms a part of the industrial transition regions component of the study. Workforce provider consultation was proposed to help answer the following primary research question: What are the barriers and opportunities to increasing First Nations participation in the clean energy sector? The engagement aimed to capture experiences and insights from a key stakeholder group in the employment of First Nations people. To accomplish this, an online workshop (or focus group) was held for workforce providers from the Gladstone/ Rockhampton, Pilbara and LaTrobe Valley regions.

Background

Industrial Areas in Transition

In October 2022, Gladstone Regional Council published the Gladstone Region Economic Transition Roadmap where they announced that Gladstone will be undertaking a major economic and environmental transformation. In the report they note that the Gladstone region will shift away from a fossil fuel-based economy and assert itself as a renewable energy superpower. Historically, the region has been known for its aluminium smelting and LNG production, and the port which exports 50 million tonnes of coal a year.

The Pilbara region in Western Australia is similarly known for its mining and fossil fuels-centric economy. Recent pressures on these mining giants to decarbonise their emissions-intensive operations has opened up opportunities for the region to embrace large renewable energy projects for local use and for export overseas. The Pilbara will be home to some of the largest renewable energy projects in the state and Australia.

The LaTrobe Valley was home of the Hazelwood Power Station which was constructed in the late 1960s and supplied up to 25% of Victoria's base power needs. The brown-coal fuelled power plant was flagged as one of the most polluting power stations in the world in 2005 and was decommissioned in 2017. The plant was a major employer in the region, staffing around 500 direct employees and around 300 contractors. The region has responded to this significant economic shift with a transition plan to capitalise on their status as a Renewable Energy Zone and the first declared Offshore Wind Zone in Australia.

We chose to consult workforce providers in these areas because of their extensive experience working with local First Nations people. These organisations have a deep understanding of the employment preferences and challenges for Indigenous people in their region, as they go on the journey with hundreds of First Nations job seekers a year.

About workforce

Workforce Australia Employment Services are federally funded providers who support job seekers to become "job-ready" and to find employment. Workforce providers assist people to:

- write resumes
- look for work
- prepare for interviews
- build new skills through training
- obtain a drivers licence
- cover eligible costs associated with training and starting a new job
- find work experience
- manage mutual obligation requirements to maintain government benefits.

While workforce providers only assist job-seekers that are on Government income support payments, this represents a significant proportion of Indigenous Australians in the labour force (up to 21% of First Nations people aged 15 to 64 receive JobSeeker or Newstart Allowance).

About The Community Development Program

The Community Development Program or CDP is an employment and community development service administered by the National Indigenous Australians Agency (NIAA). The program is specifically for remote communities and aims to help job seekers build skills, address barriers to employment and contribute to their communities. CDP applies across 75% of Australia, supporting 40,000 people in over 1,000 communities. Like Workforce, local providers are the points of contact for assistance. The key difference between Workforce and CDP is that CDP job opportunities include financial support for employers to create new, ongoing roles within remote areas (part time or full time with a minimum of 15 hours per week). Employers needed to apply to receive funding of up to $61,058 over two years.

In mid-2024 the CDP will be replaced by the Remote Jobs and Economic Development Program (RJED), a $707M initiative as part of the Closing the Gap Implementation Plan. CDP will continue to be administered through providers until July 2025. The new program aims to create 3,000 jobs over the first three years. The aim is to create meaningful, desirable, local jobs that are developed in partnership with First Nations people and communities. As part of this fund, community-controlled organisations can identify projects the community needs and apply for funding of capital and equipment, supporting local business and economic development.

Consultation with over 2,250 people across 100 remote communities revealed that First Nations people want the RJED program to:

- be planned and led by communities
- recognise roles carried out in the communities
- take a new approach for young people
- support local jobs for local people
- include a form of reciprocity
- be flexible to invest in local priorities, and
- assist people unable to work right now

The RJED program will incorporate some successful elements of the older Community Development Employment Projects (CDEP) but will aim to improve on some of CDEPs shortcomings. According to NIAA, other CDEP community organisations had to complete complex paperwork and people did not experience fair workplace conditions such as:

- a paid job
- good wages
- decent conditions
- superannuation
- leave

The details of the program are yet to be announced as NIAA finalises three community pilots.

Research Aims

The key aim of this portion of the research was to consult workforce providers and recruitment/ labour hire companies to gain insights about employment of First Nations people in key regions that are transitioning from industrial centres into clean energy hubs.

The workshop was developed to help answer one of the primary research questions - What are the barriers and opportunities to increasing First Nations participation in the clean energy sector?

The following secondary research questions also shaped the design and delivery of the workshop:

- What are the training and career pathways into these jobs?
- What are the barriers to increasing First Nations employment in the clean energy sector?
- What industry 'best practice' initiatives can be emulated?
- What should be the key priorities for policies and programs to increase the volume and quality of First Nations training, jobs and careers in Clean Energy?
- How can energy jobs be structured to respond to the needs and wants of First Nations people who could work in the sector?
- How could clean energy jobs be attractive to communities to compete with alternatives such as mining roles?

Method

The 90 minute online focus group was held on zoom at 2pm AEST on February 14th 2024. It was facilitated by Ruby Heard (Alinga Energy Consulting), Chris Briggs (ISF) and Sarah Nicklas (ISF). The interview was semi-structured, with nine questions to direct the conversation.

Participants were emailed an information sheet prior to the interview informing them of the scope of the research, their involvement, the questions that would be asked and how their contributions would be used.

The workshop was video and audio recorded for automated transcription and consent for this was sought verbally at the beginning of the meeting.

Recruitment

We reached out directly to workforce providers and employment recruiters in person at their workplace (Rockhampton area only), by email and by phone. In general, providers were happy to participate but we needed to identify an appropriate person within the organisation, which was challenging for some organisations within the timeframe we had.

ORGANISATION	BRANCH LOCATION
Busy at Work	Central QLD
Australian Training Works Group	Central QLD
Tracks	Central QLD
Intojobs/intowork	Central QLD
Achieve Recruitment	Central QLD
Indigenous Workstars	Central QLD
Community solutions	Central QLD
Jobs and Skills WA	Pilbara
Real Futures	Pilbara
Gbs recruitment	La Trobe Valley
Baw Baw LaTrobe	La Trobe Valley
sgbcllen	La Trobe Valley
Employment Plus - Salvation Army	La Trobe Valley
Workways	La Trobe Valley

Attendees

We were not able to get representatives from all of the organisations we contacted to attend the focus group. Some organisations did not respond to our email requests and their call centres were not able to direct us to an appropriate person to speak with. We had five people attend the focus group representing four Queensland based offices and one Western Australia based office. Both Real Futures and Indigenous Workstars are majority Indigenous owned businesses with a focus on First Nations employment. The other organisations are not specifically focused on First Nations employment but operate in Central Queensland where there is a significant Indigenous caseload.

One participant works at a recruitment company which is not a Workforce provider supporting unemployed persons, but he works closely with those agencies to find workers on a project-by-project basis.

ORGANISATION	REPRESENTATIVE	BRANCH LOCATION	TYPE OF PROVIDER
Intojobs/intowork	Sandy Sionepeni, Training Coordinator	Gladstone, QLD	Workforce
Achieve Recruitment	Kenn Cromwell, National BD Manager	Rockhampton/ Townsville/ Brisbane QLD	Recruitment
Indigenous Workstars	Tayla Weder, Recruitment Specialist	Rockhampton, QLD	Workforce
Community solutions	Sam Storch, Employment services	Rockhampton/Mount Morgan QLD	Workforce
Real Futures	Sean Challis, Regional Manager	Carnarvon, WA	Employment Support Services / CDP

Data Collection

Our focus group participants were asked to answer and discuss the following questions:

1. What are the top priorities for your First Nations clients when it comes to employment? Does this differ in any way from non-Indigenous clients?
2. Have you placed any workers into the renewable energy sector? If so how many, how many First Nations people and what percentage of placements would that represent? (estimate is fine)
3. What's the top sector you place First Nations people into and why?
4. Can you talk specifically about heavy industry in terms of how and why you might place someone there, job satisfaction and retention rates? And also ways that the industry may not meet expectations?
5. What are the key barriers or challenges you see to increasing First Nations placement of FN people into renewable energy jobs? Is there any additional support you need?
6. Knowing what FN are looking for in employment, what would you say are the opportunities that the renewable energy sector could provide to First Nations people?
7. What strategies have other industries (for example mining/construction) used to increase job attractiveness and awareness or facilitate ease of you placing people?
8. What are the key actions or changes needed to improve job and training uptake (and completion)?
9. Are there any other issues that we haven't covered that you would like to discuss?

The interviewers asked follow-up and clarifying questions as needed.

Findings

The discussion has been condensed into the following key insight categories:

- State of training and RTOs in regional areas
- First Nations employment preferences
- Key employment sectors for First Nations
- Challenges and barriers to First Nations employment
- First Nations Women in the workforce
- Opportunities and challenges for the clean energy industry

State of training and RTOs in regional areas

Creating a new clean energy workforce of First Nations people will require some training and up- skilling, particularly as we aim to progress Indigenous people out of lower-skilled, entry level jobs. A key challenge identified by our focus group was the lack of quality training and appropriate Registered Training Organisations (RTOs) in the regional areas they operate in. It was noted that many RTOs operate on a "tick and flick" model, moving job seekers through sub-par training quickly for financial gain. The result is qualifications without proper training and even people completing courses where they do not meet other requirements for a particular line of work (for example putting people into security operations courses who will never get a security licence because of previous history).

"..We all know what the issues are, there's not enough training or ability to train for Indigenous people to get up into the same sector." Sean

"I find I fly most of my trainers up from Brisbane, I work with RTOs in Brisbane and fly them up here [to Rockhampton].. especially for their practical [learning] and that sort of stuff…We don't use many locals." Sandy

"We are the same [in the Pilbara]. I get most of my RTOs from Perth, or east coast. I try to use the [local] TAFE where I can. But they have a huge shortage of lecturers, and they can't cope with a lot of stuff." Sean

The lack of adequate local training in regional areas means that providing certifications is expensive and is not as readily available to our regions. Our participants told us that this was not only the case for technical qualifications but was also impacting employment checks and screenings.

"..trying to get a traffic management course done. It's a six month wait to get RTO's to actually run that course." Sean

"NDIS screening cards, it's a minimum of a six month wait." Sam

Attendance and completion of training is also a challenge due to the same barriers that impact First Nations employment (discussed later). Real Futures has had success in improving completion rates by compensating job seekers while they attend training.

"..part of my model is I put a lot more money back into training and employed training. So anybody's doing a course for more than two weeks, they get paid wages. And they actually come and they turn up and they finish the course, we have a much higher level pass rate than what we used to." Sean

First Nations employment preferences

When asked what types of employment their Indigenous caseloads preferred, the responses were unanimous. First Nations job seekers in the Pilbara and Central Queensland are most likely to enquire about roles in mining.

"They all say mines, I'm pretty sure every second person says "I want to go to the mines"." Sandy "Yes, they all say mining" Sean

Our workforce providers told us that the key motivations for wanting to work in the mining industry were first and foremost for the high wages and also the perception that many of the roles are not strenuous. Lower paid roles such as cleaning are much harder to fill according to Real Futures.

"They can tell you why, it's because money. They don't know what they want to do out there… Or they just see all the advertisements, they hear that in mining you make lots and lots of money. Yeah, truck driver sits for 12 hours a day and doesn't have to do anything too strenuous." Sam

"..unfortunately, we're unable to fill any cleaning contracts [for mines in WA] with cleaners because they don't want to do cleaning work. They [job seekers] want the higher paid end jobs." Sean

In terms of job retention however, Real Futures sees a dramatically lower rate for Indigenous people staying on in the mining industry long-term.

"I would say that in placing indigenous and non-indigenous people into the mine sites (because I have a mixture of my caseload) around 20 to 30% actually stay on (employment of indigenous). Whereas I have a 60% stay on for non-Indigenous in the mining sector." Sean

Key employment sectors for First Nations

We asked our workforce focus group what roles they are generally placing their Indigenous job- seekers into. The responses were consistent, with top jobs being labouring and cleaning, and the top industries being construction, civil construction, rail and mining. The key reasons were noted as – availability of entry level positions, ready access to the required training courses, on-site training and short-duration training.

"…Cleaning is such an entry level type role where.. on-site training is so easy to be given. So cleaning is a big one that we place our customers into, as well as labouring." Tayla

"Mainly labouring. Because it's a lot easier to get the training done with your rail and your construction and your resources and infrastructure than your certificates, II and III, for a lot of our indigenous caseload" Sam

"Those quick, you know, two, three day courses. Rail's a few weeks, so, really low qualification level roles to get them into." Sandy

"The training for construction is really easy for me to get people into." Sean

Where budgets allow the providers to pursue more in-depth training, as is the case with Real Futures under the CDP arrangement, they are able to put job-seekers into higher level qualifications. This opens up opportunities into additional sectors and higher skilled roles directly. Otherwise, their clients would need to look for opportunities to progress into new roles by working their way up from an entry-level position.

"For us, it would be the mining sector, main roads or road work crews and construction and labouring are the biggest ones for us. But I do have a large budget so I can do 16 week training courses for cert III civils, digital stuff." Sean

"..A lot of my indigenous caseload, if they go into mining, they go into the cleaning side to start with… So they're getting on-site training as they're going. And I have had quite a few that have stuck with that and they've moved on from there. So they then go on from that if positions come up on-site for training for operator roles further on." Sam

Challenges and barriers to First Nations employment

Workforce providers see the key barriers to First Nations employment as:

- Cultural awareness among employers and RTO's
- Trade-offs between wages and government benefits
- Working outside of community
- Foundational education including computer literacy
- Transportation
- Engagement
- Prejudice and previous history bias

Cultural awareness among employers and RTO's

The need for cultural awareness in workplaces and training environments was a strong theme throughout the discussion. It was noted as one of the key employment priorities and challenges for First Nations workers from the experiences of our Workforce providers.

"...One of the hardest things we've had to deal with over the years. They've got sorry business and cultural business and law that they have to attend. A lot of employers don't like the idea of their staff disappearing for two, three weeks at a time. And that is one of the biggest issues we have regarding indigenous to non-Indigenous employment." Sean

"I think the main.. sort of barrier with employment with our indigenous caseload is the fact that a lot of employers these days aren't culturally aware." Tayla

"Understanding of sorry business and things like that does make a massive difference." Sam

Some sectors (for example professional services) have started to offer cultural leave options to First Nations employees. However, many industries do not offer much flexibility, particularly to entry- level workers and would prefer to hire on a casual basis. First Nations employees may therefore seek out casual working arrangements, missing out on the benefits of stable, full-time employment.

"Nine times out of a 10, an employer would prefer to hire them as a casual contractor, instead of employing them directly." Sam

"…Construction employers, generally it's casual. So they accept the fact that somebody goes away for cultural business, they just don't get paid, they come back. Different to the mines, where they're expected to be there on shift, ready to go." Sean

The flexibility of casual working arrangements may therefore lead to higher long-term retention rates of First Nations employees.

"Construction is a difficult one to get a retention rate to because construction sites are very short lived, they are generally short contracts, three months, six months… it would be 50/50 with non- Indigenous and indigenous people in construction.."

While our workforce providers are seeing some employers that demonstrate cultural awareness, in some cases an understanding of First Nations needs was seen as a barrier to employment.

"..We have a number of partners we work with. There's a lot of companies out there that are culturally aware, and they are very good. We work alongside them." Sean

"… A lot of the employers that are not culturally aware enough to.. well they are aware enough, but they don't want to employ indigenous people, for the very reasons that they do have their culture." Sean

Cultural awareness was also seen as an important requirement for employment training. The workforce providers emphasised the need to provide training that caters for individual needs and meets people where they're at.

"..Delivering that training in a culturally safe environment…just always comes down to understanding your cohort and who you're delivering the training to. Mix it up.. it's not going to be a.. blanket approach for every cohort.. just understand you might be doing group training .. but they're still individuals.. At the end of the day, we might need 100 people on the job site, but that's still 100 individuals.." Sandy

"..You have to make the training very versatile, to cover multiple different personalities, LL&N, backgrounds and things like that. It's not just, this is what I'm giving today, everyone's got to take it and understand it, because it won't happen and if people feel like they're not enough or feel like.. it's too hard. They just won't engage and won't come back." Sam

A central value of Aboriginal and Torres Strait Islander culture is family connection and the responsibility and obligations that come with that.

"They're very family orientated, you know, if something happens, they all come together as one, as a mob. And that's a big thing that employers just don't seem to understand." Tayla

"Their family commitments is a huge thing." Sandy

Those obligations also extend further than a Western model which tends to acknowledge only a small immediate family group.

"..You have to take into account that family is a big thing for them. So time off may not necessarily be just for your close, immediate family. It may be for further on down the family line, if not other relatives, non-relatives that are treated like relatives." Sam

"Your females, you've got school pick/up drop off that sort of stuff, because you know, the transport isn't here to assist for that. And, and it might not even be their children. They could just be aunties and uncles and you know, we have 100 children we've got to take care of and get to school." Sandy

Obligated benefit sharing is another cultural expectation that puts pressure on First Nations workers. Workers may find a large proportion of their hard-earned pay packet is distributed to the community, making having a job not feel worthwhile.

"Indigenous will share a lot more of their pay packet with family than non-Indigenous will." Sam

Trade-offs between wages and government benefits

In some ways the current government benefit systems can dis-incentivise unemployed people from getting and keeping a job. The workforce providers agreed that this is an issue across all states which again drives people towards casual work and limited hours.

"We do find that a lot of our job seekers, especially indigenous would rather (and this is going opposite to what was there before), prefer the short term [work], because they don't like losing their Centrelink, their house rent assistance. And over here with Homes West, as soon as you get a job, your rent goes up. So basically, they get cut in the pocket in three different directions. As soon as they get a job, they start weighing it up. Is it worth it? So they try and keep to the lower income over a shorter period of time." Sean

Real Futures also noted that in some Pilbara communities it's difficult to employ a local workforce as there are substantial mining royalties which negates the need to work.

"WA's a huge mining resource so a lot of the indigenous people here are on royalties. So you get up in Roebourne to Port Hedland and that, you're flat out even getting them interested in working because they have so much money coming in royalties that they don't really want to work." Sean

Working outside of community

Local work is hard to come by in many regional and remote communities. The majority of job opportunities will either require people to relocate or work on a fly in-fly out (FIFO) basis, most commonly associated with mining. But cultural commitments can often be a barrier to working outside of community as people can't quickly and easily return home.

"And it's not necessarily sometimes them [the employed person] that can't handle them being away doing the mining work (a lot of the time they want to get away from family) it's the calls from family. And if they go out on [the mining jobs] transport's provided. So if they're going out on buses.. there's no way for them to stop, drop and roll and get home… It's not a case that they can leave at a moment's notice if they have to… So it's a big thing for family to understand that. If they're working in town, they can quickly take off, if they're working away, yes, they get the big dollars, but there are a lot of stipulations that go with that." Sam

"Yes, they all say mining [is where they want to work] but once they get into the mines, they realise that it's 12 hour shifts, and it's seven days a week for two weeks solid. Then they get one week off and.." Sean

"And they're too far away from family" Sam

Not only does this impact their ability to support their communities and families, they also lose their own support networks.

"..It is difficult because.. they stay, away from family (depending on which mine sites they go to) [or] they go to a labour hire company that moves them to different mine sites and there might not be any of their people at that mine site they know, or friends to fall back on.." Sean

Foundational education

Foundational language, literacy and numeracy skills (LL&N) have been an ongoing issue amongst First Nations people and will present an employment challenge for the clean energy industry. Computer literacy also tends to be low as a result of lack of access to computers and low school attendance.

"..Having the ability to have people who are educated is no longer a thing, it's a thing of the past... Now we have to have mentors in place to actually help them get through the paperwork, nearly every single job they go to now they have to do an enrolment system or to get on site, they've got to get on the computer and they've got to do inductions. And most of the people don't have the capacity to do an induction." Sean

"..Basically, without the LL&N ability and the training and the upskilling that's needed to meet this new industry, and it is a new industry, it's going to be very difficult for us to get a lot of indigenous people placed." Sean

"It is gonna be another big thing in the future. But.. it's very hard to get IT trained people when you can't get them to go to school." Sean

The workforce providers see it as a legacy issue, passed down between generations but seemingly worse now than ever before.

"Biggest barrier we have seen is the younger generation not wanting to go to school and it's a huge issue. And I can see, I've been in this industry for what 16 years, and I can see it's getting worse and worse and worse with every generation. On my caseload now, I've got 3rd generation non-schoolers who have never been to school." Sean

"I think it comes down to generational, a lot of the young people here you'll see their parents don't drive or their parents haven't finished school." Tayla

Transportation

Transport is a big issue in regional and remote communities and our workforce providers identified it as one of the biggest challenges facing their job-seeker clients.

"… Look at the specific region, and what that region needs. So our biggest thing in central Queensland is transport." Sandy

"..Transports a huge, huge, issue in CQ." Tayla

"..[Public] transport, where we are in central Queensland is just pretty much non-existent compared to like Brisbane." Sandy

"..We're all in remote areas so transport is a big issue. We have no trains. We only have a plane service, and a bus service once every two days." Sean

Without public transport options it's essential to have personal transportation to gain employment. However, licensing and access to a vehicle is another common challenge for First Nations people due to difficulty obtaining a licence and affording to buy, run and maintain a vehicle. Passing a conventional written drivers licence test can be tough given the low literacy levels amongst First Nations people.

"There's no drive to get the young people.. their licence let alone them even thinking they could afford to run a car." Sandy

"I've heard also that WA and Northern Territory have it a lot easier than New South Wales and Queensland as far as getting driver's licences… They've [First Nations] got to do everything exactly right [on the east coast]. All the driving tests, all the questions. It's full on, there's no help towards indigenous people that have... some do not have the capacity to understand reading from a manual. And they have to do the same tests that a non-Indigenous person does, which I don't agree on." Sean

"PrepL [online learning and assessment pre-requisite for car licence in Qld].. in Queensland, you know, it takes hours and hours, and it's reading. So straightaway, they're already kind of starting behind the eight ball with their LL&Ns too low to understand that." Sandy

"They do have a remote driving department, they come out to Aboriginal communities.. in Queensland. But as I said, they have to pass a course exactly the same as a non-Indigenous person. And it's very difficult for them to do so. Whereas in Northern Territory, and WA are much more culturally aware. And we have department transport remote teams come out. And sometimes they don't even have to do a written test, they can actually do it verbally, if they have issues. And this is the biggest problem - different states have different laws, different rules." Sean

We also heard that in regional areas driving schools can be severely under-resourced, some relying on volunteer staff. This results in long waiting lists for lessons. Lack of personal identification and lack of access to a computer can also slow down licensing.

"We can use the [Workforce] employment fund to help with driving lessons and learner's licence… But.. it's not necessarily having the funds there to assist with it, it's having the resources.. there's only a [small] number of driving schools here [in Rockhampton]… only one driving school goes up to Mount Morgan and he's like three months booked out". Sam

"You've only got a handful of driving schools up here… Mount Morgan… that's like half an hour out, you've got driving schools that won't even go out there. People have to find their way into the main city, which is Rocky. PCYC used to have like a Break The Cycle [program], that was free lessons... But you need volunteers to run it and it's just not happening." Sandy

"The waiting list for the PCYC driving school here is three months out… they've got to get online to do the PrepLs, having access to a computer, they've got to come into our site, because a lot of them don't have access to computers. And it's really hard to do on a mobile phone. So it delays processes even longer, and getting IDs and stuff to be able to do that makes the process just sometimes too hard for some people." Sam

To combat the transport issues, some employers will provide bus transportation from town to the job site. This solves many of the transport issues but can create other challenges for First Nations people ie. returning home quickly when required (as mentioned previously).

"So a lot of the employers have figured out, get a bus for pickup and drop offs, you'll have a lot more applicants." Sandy

"..That's the same with construction. So when we were doing ShoalWater Bay here, which is the army base, they'd have a pickup point from South Side [of Rockhampton], pickup point from North Side rock of Rocky and they'd all go out on buses. That way.. it didn't congest the road going in and out with all the machinery and stuff with.. hundreds of cars going in and out and they're not having hundreds of cars on site. ..plus, the people can sleep on the way there and the way back." Sam

Engagement

Workforce providers noted that there is a common pattern of disengagement with their First Nations caseload. A short-term perspective on cash flow may have workers begin employment, receive a paycheque, and then fail to return to work or job-seeking until that money wanes. They called out the need for incentives to have people complete training and for supportive work environments to increase retention rates.

"Getting people to engage is the hardest thing. They'll show up for one appointment with us and then maybe miss three and then really need to re-engage because they're not getting their payments." Sam

The participants also pointed out that moving people from training directly into employment is critical as people can become demotivated if their certifications don't quickly result in a placement. This is a key issue for the renewable energy sector where there can be a lot of uncertainty around project start dates and timelines.

Prejudice and previous history bias

Our workforce participants agreed that criminal records pose a significant challenge for many First Nations people seeking employment. Even old charges can automatically disqualify candidates from HR processes, and job-seekers need support to have these records expunged in court.

"..Some employers are biassed… a lot of our young Indigenous people have been in trouble when they're younger. So you do have a lot of employers that are "well if they've.. done this when they're younger, they're still going to be doing that". ..that was [possibly] 35 years ago, people have changed, they've got families, they're wanting to do something, give them a chance." Sam

"Oh, that's a big thing.. the police check. If there's anything on there, no matter how old it is, they're gonna be overlooked. And it might not even be relevant to the role they're even going for." Sandy

"..We try and take them back to court and get everything that's 10 years or more taken off their police clearance check. So that way, the things they did when they were 15/16, isn't there now that they are 22 or 25.." Sean

"[Domestic violence related court orders] can delay an NDIS screening card by six to eight months unless someone gets involved [to support them through the courts]." Sam

Providers were also frustrated about employers that set excessive minimum requirements for the job offered such as needing a clear background check for low-risk roles. One example they gave was an employer requiring a spotless police-check to fill a cleaning role for an empty warehouse. They urged employers to set appropriate candidate requirements that don't perpetuate previous history bias, giving many First Nations people a fair go at employment opportunities.

"…It's just having the requirements only that's required of that role… I had an employer come looking for cleaners for a warehouse… the equipment had all left.. it was to clean a warehouse, but they had to have a police check. So… just make sure you're looking for the qualifications.. but don't want absolutely everything if it's actually not required for someone to be successful in that role." Sandy

The providers suggested that in some cases, blatant discrimination can also occur in the hiring process.

"… I'll just use one case just recently, this young fella, he is dedicated to welding, loves engineering, done his engineering ticket, done his welding ticket. He is a really good welder. And not one of the companies or mines in this area would take him on, or an apprenticeship. They overlooked him and took people with less qualifications (that were not indigenous) to employ. He's now got a job cleaning conveyor belts up in Newman." Sean

First Nations women in the workforce

The consensus among the workforce providers was that women are interested in, and capable of obtaining the same job opportunities as men. They have strong female participation in their machine operating courses and find that the employment opportunities are available to those that apply themselves and demonstrate capability, regardless of gender.

"We do get a lot of women into the machinery during our Cert II civil courses, which is excavator, grader, roller, skidsteer. We have probably 30 to 40% women..." Sean

"..We find that women are equal opportunists. They want the same sort of work the men do. Mind you they would like "easier work", air-conditioned cabins, stuff like that in the machinery." Sean

"We've just finished a cert III on resources and infrastructure. And every one of the females in the class wanted to apply for mining and wanted to apply for the tools, hands on roles. And actually, out of the course three females got accepted into the roles (entry roles) and none of the males did. So they tried a little bit harder and they got through. So I think it's a case of equal opportunity. Whoever puts their hand up and strives for [it] gets the roles." Sam

In some cases, they see that women are actually preferred by employers because of their attention to detail, emphasis on safe work practices and care for their machinery.

"I've got more females at the moment being hired by one of my manufacturing companies that do resources for mining, because of the female's attention to detail. And males aren't, as the manager says, "anal about making sure things are done right", especially safety." Sam

"You'll find that most mines will take on women above a male because they treat the machinery better than the men do. And that's honest." Sean

There may be additional constraints around employment for First Nations women due to community and family obligations, and a stigma around capabilities particularly for mature age women.

"One of the ladies was 44… she got a role in mining. ..I think it's a stigma too, that a lot of the mature age ladies think that's all that's open to them. But once you give them all of the information, they go gung ho and go," Yep, I can do that. Put me forward"." Sam

The workforce providers suggested that there are some successful campaigns which support women in male-dominated industries including Sisters in Mining (getting Indigenous women into the mining workforce), and Purple Boots for the construction industry. One good news story out of Community Solutions showed the possibilities for advancement from entry level roles when women are given support to build their confidence.

".. I helped her 18 months ago, to get into cleaning in the mine sites in hospitality and kitchen work. And she's now a roller operator... Because she took the opportunity that came forward... it's actually

changed a lot of her perspective that she can actually do things, without thinking that she's not valued, and that she's just someone to sit at home with the kids. So it does make a difference if they're given the right tools to step forward..." Sam

Opportunities and challenges for the clean energy industry

None of the workforce providers in the focus group had placed any job-seekers into clean energy jobs. For Real Futures in Western Australia this was put down to a lack of engagement by the renewable energy sector.

"For us, in WA we were never involved, like no clean energy would contact us or be involved with us until the hydrogen project started…" Sean

The providers see a lack of training pathways as a big barrier to getting First Nations people job- ready for the new industry. It was also noted that there is a practice of procuring and hiring inter- state or overseas contractors and labour for energy projects, creating competition for local workers.

"..The training that the indigenous people need is solar, wind, generation, construction, and chemicals, such as ammonia.. And there is nothing in WA, I have tried to get training through TAFE and other RTOs in WA. No one does solar or wind generation training for straight from the very bottom [entry level], you actually have to go to college… there's no one training any new people on it." Sean

"There's a massive wind farm with generation plant went up there [near Perth] for the mining sector. And it was all done by overseas contractors. And they brought workforces from the eastern states over." Sean

Central Queensland providers had more interactions with the clean energy industry and were concerned about the project commencement delays they were often seeing. The providers attempt to meet the workforce needs of a project by putting potential candidates through relevant training, in line with the proposed project schedule. Delays to that schedule may mean that they have no job for their newly qualified job-seekers to go on to and they may need to be placed into a different industry or remain unemployed, losing motivation to work.

"We still got them [jobseekers] sitting here or we've had to put them elsewhere into lower roles just to get them into employment so that they don't lose momentum… and they don't lose the whole eagerness to work because you work them all up and get them ready to go get them trained and get them to the stage where [they feel] "yep, I can do this". And then, aw no the contract hasn't been awarded yet, or we haven't got this or we haven't got that. It's now 18 months off before it's going to start…" Sam

The providers also remind us that it's not just an individual that is being let down, their family may also be relying on their employment.

"They get their family on board as well. So it's not just them, you're not affecting just them. You're affecting family. So they're taking away time from their family to go do training. So say a 13 week course, where they would be home normally with their family… you're taking them away from what their family can see is their [family] time, to get them trained to get these big jobs. And then at the end of it, we've got to say, at the moment, it's been put off. So you're not just disappointing them, you're disappointing, people around them." Sam

"I was saying to some of the employers that came through last year that had a bit of a yarn about the farm, the solar farms and that sort of stuff. You know, there were people definitely changing lifestyle to make this happen. And then it was just another roadblock put in front of them when nothing was available for them to apply for. So it's just…being as transparent as possible." Sandy

The clean energy sector has the opportunity to provide many appropriate jobs for First Nations people over the coming few decades. However, attracting and retaining Indigenous people will require effort. The focus group continuously highlighted that First Nations job-seekers will need support systems and culturally aware employers, in many cases even to obtain entry level work. They see the most success with employers who are willing to provide ongoing training, mentorship and clear expectations from the outset.

"Definitely the appeal of entry level, on-site training, that's a big thing, because that's where customers.. of mine.. are really worried because they don't have that experience. You know, we're actually dealing with very long-term unemployed people, some not having a job at all. So it's a very daunting thing to step into full time employment or part time employment even. So just knowing that they're gonna have that support from their employer or their supervisor is a really big thing. Because, you know, First Nations people, we have to gain trust, you know.." Tayla

"A couple of businesses that I work with.. have on-site, Indigenous mentors as well. So they do help them progress through the employment, they approach them and have meetings with them once a week, to see where they're going, see what they need." Sam

"..It's the awareness of what's required of them in the workplace as well, you know, they definitely need that. To be really clear at the beginning of it all, it's.. not necessarily a nine to five job, that sort of stuff. So them just being aware of exactly what's expected of them ..." Sandy

"It's them [the jobseekers] understanding you need to live a lifestyle to have sustainable employment. So you can't go do what you like Saturday, Sunday to turn around and go to work Monday if you're not going to pass the drug and alcohol [test] from the weekend. So I think that was a big barrier for us here in central Queensland. It's educating them that your lifestyle needs to suit the employment goal that you have." Sandy

Key takeaways for the clean energy industry

Some considerations that the clean energy industry can take away from this consultation are:

- Training pathways will be key to creating a strong pipeline of First Nations workers in the clean energy industry. Training will need to be:
  - Accessible – taking into account the barriers faced by regional and remote communities (e.g. literacy, access to computers/high speed internet, lack of quality local RTO's, travel requirements etc). This may also include paying people to attend training. There are some successful models from other industries that could be used as a template (eg using milestone payment structures to incentivise course completion).
  - Affordable – course fees will present a significant barrier to many First Nations people including those applying through a workforce provider.
  - Attractive – developing a strong public image that promotes the industry and its key benefits for First Nations people. Identifying, communicating and supporting clear pathways from training to job outcomes.
  - Supportive – personalised support to ensure everyone is given a fair go to help them succeed.
  - Timed – avoid training too early and then leaving job-seekers without a position to move into.
- Industry-specific training will be required to elevate First Nations people above entry-level roles. There is a current gap in this market, especially for those living regionally and remotely. Based on the challenges we heard, this training should be:
  - Targeted – Industry specific training will ensure that people are fully prepared for the roles that are relevant to the clean energy sector.
  - Quality – Many existing RTOs have low quality content and a lack of individual support. The clean energy industry should look to form new RTOs or develop relationships with good existing RTOs that can deliver well-trained workers into the industry.

  - Linked to a position – ideally proponents would take responsibility for job-seekers before they undergo their training. Offering them support and a guaranteed position at completion.
  - Paid – completion rates are higher when First Nations people are paid while they complete necessary training.
  - Ongoing – Continued on-site training and support is required for many First Nations people to feel confident in their role.
- First Nations job seekers (particularly the younger generations) in regional and remote communities are motivated to attain high wage positions. This is driven by high remunerations in the mining industry, loss of government assistance when employment is obtained and a cultural obligation to share income with immediate and extended family Lower-paid entry level jobs will be less attractive to a First Nations labour force. Efforts will need to be made to train this workforce for positions that meet salary expectations.
- Cultural awareness is a key priority and concern for First Nations employment. What this means in practice is a working or training environment where there is an understanding of Aboriginal and Torres Strait Islander culture and a flexibility that allows for cultural obligations to be upheld. This may include reduced working hours to cater for regular caring duties, and paid or unpaid cultural leave for circumstances such as sorry business or ceremony.
- The clean energy industry will be in competition for First Nations workers, primarily with the mining and construction industries. There is a perception that mining is easy money, but many First Nations employees quickly find out that the conditions are not favourable for them. A key distinction between mining and the clean energy industry is that mining can involve work that is underground and may require night-shift work, both of which are detrimental to people's health but are not common with clean energy projects. The clean energy industry should look to promote themselves as an industry with healthier and more appropriate working conditions. Outside work is likely to be attractive for First Nations people based on our remote job-seeker consultation.

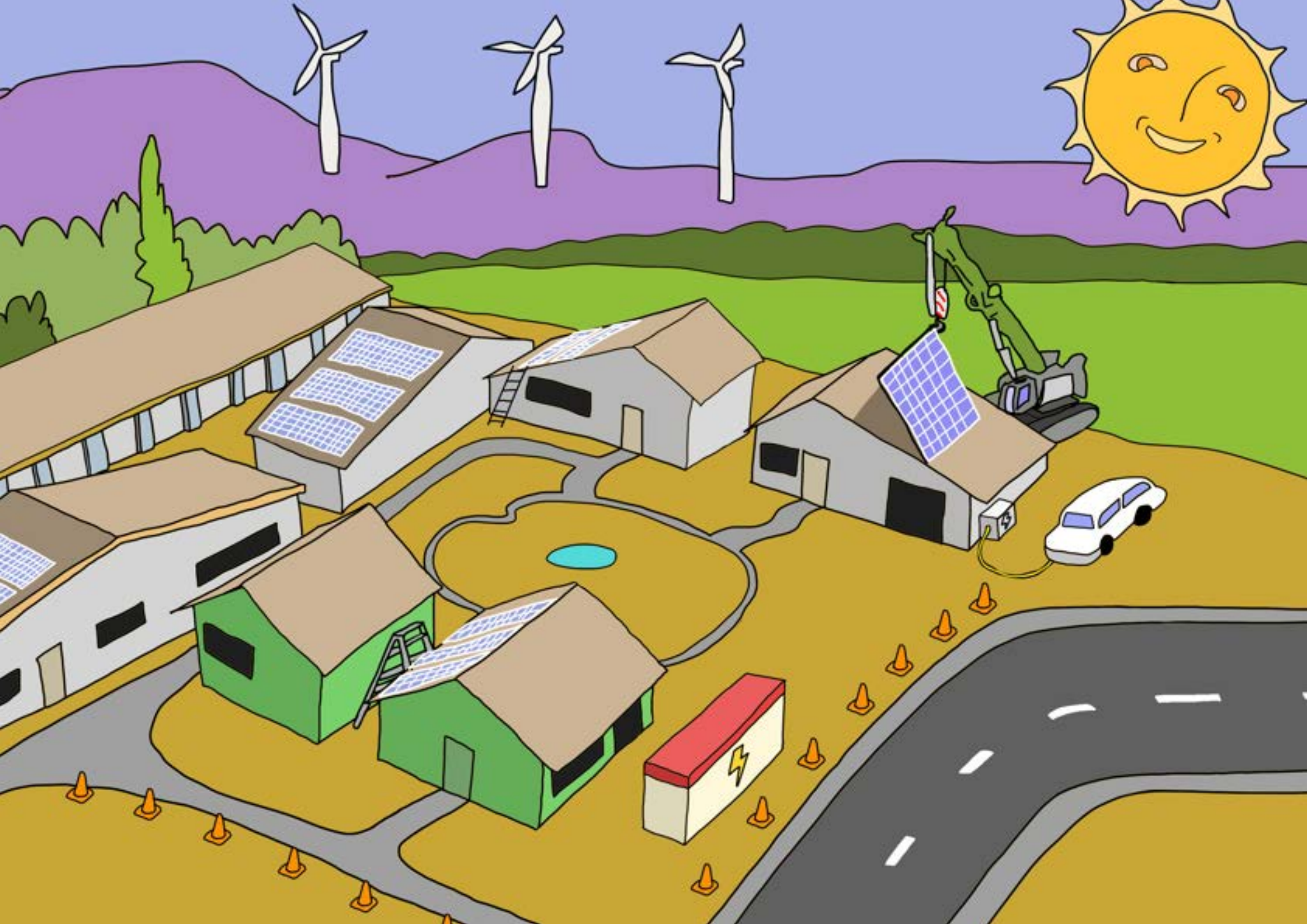
Conclusion & Recommendations

Although Workforce providers only represent job-seekers on Government benefits, this includes a significant proportion of working age First Nations people. Further, if the clean energy industry is looking to maximise their positive impact within the First Nations community, then there should be a focus on employing school leavers and the unemployed, rather than competing for already skilled workers. The workforce provider consultation has provided insights that are relevant to the wider regional and remote Indigenous labour force. This included essential knowledge about job expectations, cultural considerations and employment challenges for First Nations peoples in their regions.

Many of the training and employment challenges that regional and remote Indigenous communities face are due to systemic, intergenerational disadvantage. The clean energy industry will need to bring innovative solutions to the table to overcome the barriers to achieving ambitious First Nations employment targets.

Some additional considerations for the industry include:

- How will the industry address or work within the foundational education limitations of many First Nations people?
- How can the industry better engage job-seekers and workforce providers? Whose role is it? How can the industry collaborate to lift the image of the sector and promote itself as an attractive industry for First Nations peoples?
- Project delays can exacerbate demotivation in an already at-risk job-seeker cohort, which also has impacts on whole families. How can the industry work to remove uncertainty or what could other solutions look like? Example offering to temporarily place trained workers on other projects in construction.
- Is the industry aware of their HR previous history screening requirements? Are they appropriate for the roles, or will they rule out candidates unnecessarily?
- Is there a way that the industry can help combat systemic disadvantage in regional and remote communities such as lack of transportation, driving experience and LL&N education? For example: forming partnerships with existing non-profits, donations to programs and providing project staff with paid volunteer time may be effective.



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