

Acknowledgement

We acknowledge Aboriginal and/or Torres Strait Islander peoples as the Traditional Custodians of our land and its waters. Ninti One Limited and our project partners wish to pay respects to Elders, past and present, and to the youth, for the future. We extend this to all Aboriginal and/or Torres Strait Islander people reading this document.

Use of sensitive terms

The terms 'Aboriginal and/or Torres Strait Islander', Aboriginal', 'Indigenous' and 'First Nations' may be used interchangeably throughout our resources. Using these terminologies, we seek to acknowledge and honour diversity, shared knowledge and experiences as well as the right of stakeholders to define their own identities.

Appreciation

Ninti One gratefully acknowledges the contribution of our project partners Alinga Energy Consulting, Community Works, Humanitarian and Development Consulting Pty Ltd, Building Indigenous Capability Pty Ltd and consultants Dr Dan Tyson and Alanna Reneman to the First Nations Engagement in the Transition to Net Zero project and the development of this resource.

We sincerely thank the Cultural Safety in the Decarbonisation Transition Reference Committee for their invaluable guidance and support throughout the project.

We also extend our heartfelt thanks to all the people who generously shared their time and perspectives during the consultation process – your voices are at the heart of this work.

This project was funded by the Australian Government Department of Employment and Workplace Relations.

Disclaimer

This report has been compiled using a range of materials. While care has been taken in its preparation, Ninti One and its partners accept no responsibility for the accuracy or completeness of any material contained in this document. All parties involved disclaim all liability to any person in respect of anything, and of the consequences of anything done or omitted to be done by any such person in reliance (whether wholly or partially) upon any information presented in this document.











Artwork story

This artwork is a story that incorporates the project First Nations Engagement in the Transition to Net Zero. It represents the various pathways First Nations people might take to find their feet in a secure workforce.

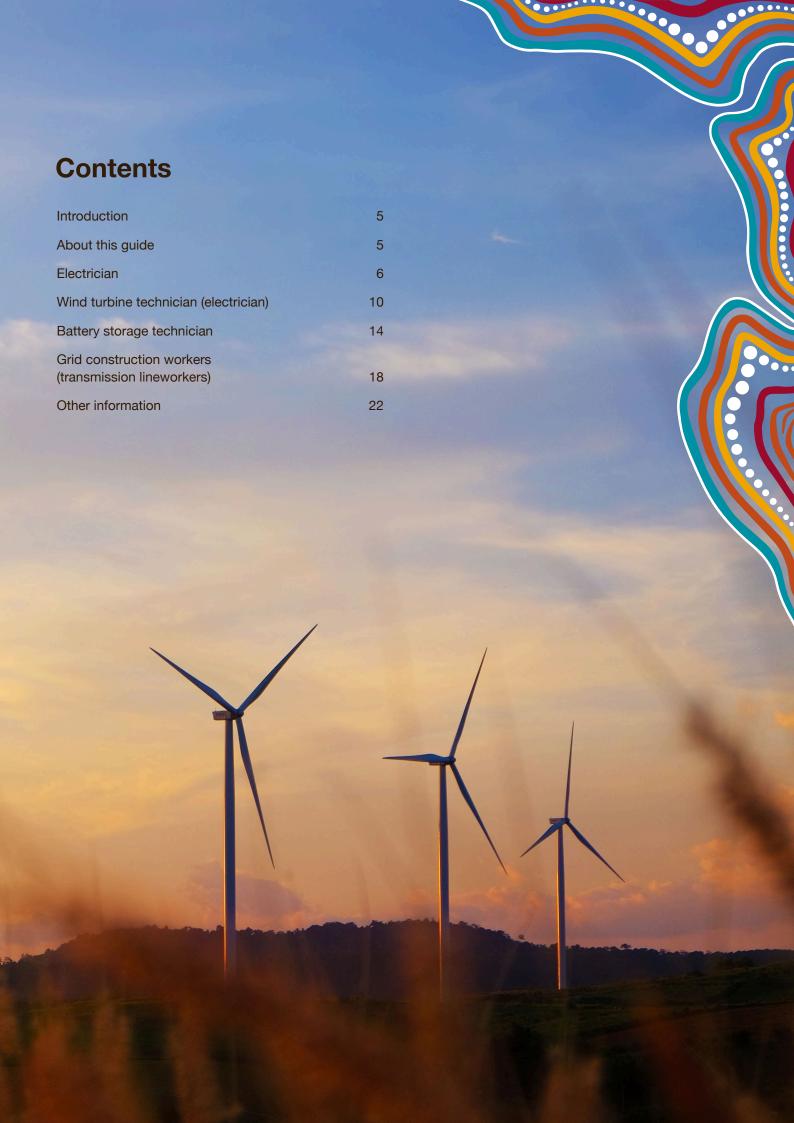
Each step of the way – from starting out, to becoming successful and eventually guiding the younger generations – is a journey in itself.

Firstly, people will hear about a job and decide if it is right for them. If this is the path they'd like to take, the next step of this journey is getting skilled up and landing the job. Once the job is secured, they will settle in and ultimately grow and thrive, in order to eventually teach new ones coming through.

Each pathway and section of the design has plenty of community symbols. This represents the support of those who are encouraging and helping to build confidence for these First Nations peoples.

About the artist - Kirralee Costelloe

My name is Kirralee Costelloe, and I am a proud Mandandanji / Noonuccal Woman who was born and raised in Rockhampton, Queensland. My art journey started about 7 years ago when I decided to carry on my Elder's legacy of painting and create my own, for my people, for my family and for myself. I thrive when I'm meeting new people in my community and having the opportunities to teach them about my story, while also creating art for them in many different ways.



Introduction

The Australian Government is working to accelerate the development of clean energy and the skills and capabilities needed to support Australia's transition to net zero. As part of this, increasing participation of First Nations peoples in the decarbonisation workforce has been identified as a priority.

To inform this work, the Department of Employment and Workplace Relations engaged Ninti One Limited to research the opportunities and barriers for First Nations people in accessing training and employment in the decarbonisation workforce. This research also assessed existing cultural safety measures and identified practical opportunities to create safer, more supportive environments for First Nations learners and workers.

Ninti's research involved extensive engagement with First Nations peoples, organisations, employers, training providers and government stakeholders, with more than 100 consultations conducted nationally.

The project findings are designed to inform the development of tools and resources that will help industry, training providers and government better support participation of First Nations people in Australia's future decarbonisation workforce. This guide also supports the objective identified in the Australian Government First Nations Clean Energy Strategy 2024-30 (the Strategy) to grow the clean energy workforce, including the priority actions to:

- Coordinate First Nations clean energy workforce development
- · Improve First Nations workforce readiness
- · Develop a First Nations clean energy job guide

The Strategy was developed through engagement with more than 1,200 people across Australia, including First Nations peoples, industry, government and non-government organisations.

About this guide

Victoria is aiming to become a clean energy leader by adding 10 gigawatts of renewable energy and over 6 gigawatts of battery storage by 2035. Big job growth is expected across the state, especially in places like Gippsland, the Mallee, and the Western and Central Renewable Energy Zones (REZs). The Gippsland offshore wind project alone could create over 6,000 jobs in construction and operations. Electricians, construction workers, engineers, and technicians are all in demand as Victoria builds new solar farms, wind farms, and energy storage systems. If you live in regional Vic or want a job that gives back to Country and community, there's strong opportunity here.

This guide gives details about 4 different jobs that have important roles to play in decarbonising industries. The jobs are electrician, wind turbine technician, battery storage technician, and grid construction worker.

The guide will help you explore these roles and see where you fit. For each job, you'll find:

- 1. a clear explanation of what the role involves
- a description of why it matters for mob including how it supports community, protects Country and creates opportunities to walk between 2 worlds
- 3. out what skills and training are needed, and how to get them
- 4. the requirements for site readiness, licensing or registration
- 5. what support is available including mob-led programs and services
- 6. where the jobs are across Victoria
- 7. step-by-step guidance to help you take the next step.

This isn't just about joining the clean energy transition – it's about making sure our mob are at the centre of it. Leading, not following. Building futures that are strong, grounded and ours.



Electricians (or "sparkies") install, fix and test wiring and electrical systems — from homes and commercial buildings to renewable energy projects like solar farms and battery storage. In Victoria, electricians are in high demand, especially in renewable energy zones and transmission upgrades. This job can take you across industries and open doors to specialisations over time — like solar, wind, batteries, or leading your own team.

Why it matters for mob

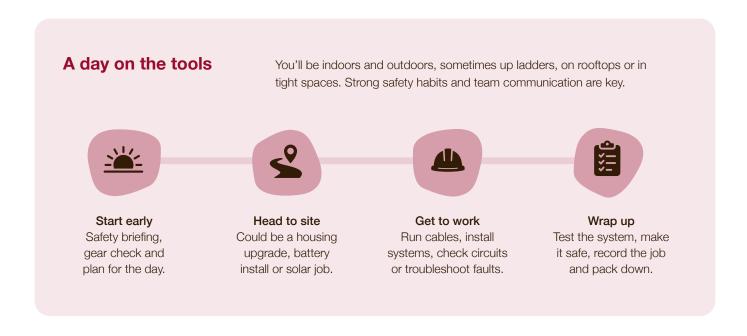
Electricians are at the heart of the energy transition. It's a hands-on job that lets you work anywhere — city, bush, or coast — while helping power up communities. For mob, becoming a sparkie is about more than income. It's about building independence, growing skills, and staying connected to Country through meaningful, practical work.

This job suits you if you ...

- · like working with your hands and solving problems
- · are focused and careful safety matters
- · enjoy being outdoors or working in different environments
- · are up for a challenge and willing to learn new things
- have or can get a <u>driver's licence</u> (needed to travel between sites and onsite).

Add-ons to get site-ready

- White Card (construction safety training) required before going onsite
- · CPR and low voltage rescue training updated yearly
- Working at heights / first aid training often required by employers
- Solar Accreditation Australia (SAA) accreditation
 required to install solar or battery systems.



<u>Certificate II in Electrotechnology Studies</u> (<u>Pre-vocational</u>)

A 6-month pre-apprenticeship at TAFE – learn the basics and see if it's for you.

Certificate III in Electrotechnology Electrician

A 4-year paid apprenticeship mixing hands-on site work and TAFE study (usually delivered in person, often weekly or in blocks – some providers offer regional delivery or travel support if needed). You'll learn how to wire homes, fix faults and work on clean energy sites.

Electrician's License

Once you finish your apprenticeship, you apply to Energy Safe Victoria for you're A-grade license. This lets you work on your own and take on bigger jobs.

Career pathways

There are many directions you can take once you're qualified. Here are some roles you might step into as you gain experience:

Lead hand or supervisor

Run jobs and guide apprentices.

Solar or battery tech

Specialise in clean energy systems.

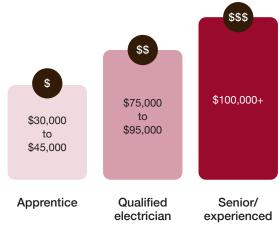
Inspector or compliance officer

Check safety and quality.

Start your own business

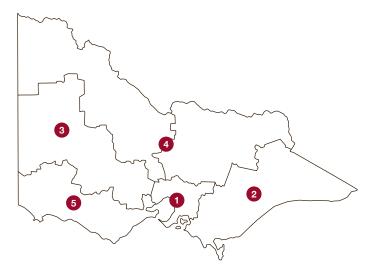
Become your own boss.

What you can earn



Region	Opportunities
Melbourne Metro	EV charging, home retrofits, solar and battery installs
2. Gippsland	Wind farms and offshore energy transition (e.g. Star of the South project)
3. Western Victoria	Big solar, wind, and battery projects (e.g. Bulgana, Dundonnell, Ballarat)
4. Hume and Loddon Mallee	Regional energy zones and infrastructure upgrades
5. South-West Victoria	Solar and battery roles in Colac, Portland and Warrnambool areas

Jobs in the decarbonisation workforce are also located outside of these hotspots, visit the <u>First Nations Clean Energy Network</u> explore local projects involving mob.



How to get started (step-by-step)

- 1. Get your <u>driver's licence</u> most jobs require it
- 2. Get your <u>White Card</u> basic safety training before you go onsite
- 3. Do a Cert II at TAFE gives you the basic knowledge
- 4. Apply for a paid apprenticeship4 years on the job + study
- 5. Finish your Cert III and apply for your electrician's licence
- 6. Do extra training (solar, batteries, first aid, etc.) to open more doors
- 7. Look for jobs ask TAFE, check job boards or yarn with AES
- 8. Gain experience work with a good crew and learn the ropes
- 9. Grow your career lead teams, specialise or start your own business

- Aboriginal Employment Strategy (AES) helps mob get apprenticeships and support through the trade
- TAFE Indigenous Centres tutoring, wellbeing and cultural support
- Victorian Registration and Qualifications
 <u>Authority (VRQA)</u> Provides information on apprenticeships and training schemes in Victoria
- School-Based Apprenticeships and Traineeships (SBATs) – for secondary students, offering a pathway combining school studies with part-time apprenticeships
- Apprenticeships Victoria connects you with training and job opportunities
- New Energy Apprenticeships Program get up to \$10,000 for gear, tools and travel



Wind turbine technicians install and maintain the electrical systems inside wind turbines – including the wiring, switchboards and controls that help generate and move power. In Victoria, the expansion of renewable energy projects, particularly in designated REZs, has led to increased demand for skilled technicians in this field. You'll work outdoors, often at heights, in crews that travel together across Country. This job suits people who want to specialise in renewables, stay active and work on the projects powering the clean energy future.

Why it matters for mob

Wind turbine technicians play a crucial role in Australia's transition to clean energy. This hands-on job offers opportunities to work in various environments, from coastal areas to inland regions, contributing to sustainable energy solutions. For mob, this career path not only provides a stable income but also allows for skill development and the chance to work on projects that benefit communities and the environment.

This job suits you if you ...

- · are comfortable working at heights and in confined spaces
- · have strong problem-solving skills and attention to detail
- · are willing to travel and work in remote locations
- · are physically fit and have good stamina
- · have a commitment to safety and continuous learning.

Add-ons to get site-ready

- Global Wind Organisation (GWO) certification essential for wind turbine technicians. Find a GWO provider near you
- Course in New Energy Technology Systems designed for qualified electricians and related professionals, this course focuses on the installation and maintenance of new energy technology systems, including wind energy systems
- · High-risk work licence may be required for certain tasks
- White Card (construction safety training) required before going onsite
- · CPR and low voltage rescue training updated yearly
- Working at heights / first aid training often required by employers
- Solar Accreditation Australia (SAA) accreditation required to install solar or battery systems.

A day on the tools

Work often involves climbing turbines, working at heights and being exposed to various weather conditions. Strong safety habits and team communication are essential.



Start early Safety briefing, gear check and plan for the day.



Head to site
Could be building a wind
farm or maintenance on
existing turbines, often in
a regional area.



Get to work
Inspect electrical systems,
perform maintenance,
troubleshoot faults or assist
in turbine installations.



Wrap up
Test systems, ensure
safety protocols are
met, document work
and pack down.

<u>Certificate II in Electrotechnology Studies</u> (Pre-vocational)

A 6-month pre-apprenticeship at TAFE – learn the basics and see if it's for you.

Certificate III in Electrotechnology Electrician

A 4-year paid apprenticeship mixing hands-on site work and TAFE study (usually delivered in person, often weekly or in blocks – some providers offer regional delivery or travel support if needed). You'll learn how to wire homes, fix faults and work on clean energy sites.

Electrician's License

Once you finish your apprenticeship, you apply to Energy Safe Victoria for you're A-grade license. This lets you work on your own and take on bigger jobs.

Career pathways

There are many directions you can take once you're qualified. Here are some roles you might step into as you gain experience:

Lead technician or supervisor

Oversee turbine maintenance teams.

Blade repair specialist

Focus on turbine blade maintenance and repair.

Commissioning technician

Specialise in bringing new turbines online.

Start your own business

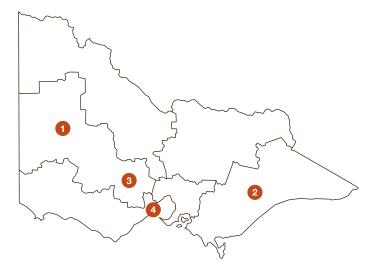
Become your own boss in the renewable sector.

What you can earn



Region	Opportunities
1. Western Victoria	Major wind farm projects and maintenance roles
2. Gippsland	Expansion of wind energy projects and new installations
3. Ballarat	Ongoing maintenance and development of wind farms
4. Geelong	Transitioning energy sector with emerging wind projects

Jobs in the decarbonisation workforce are also located outside of these hotspots, visit the <u>Solar Victoria Training and Workforce Development page</u>.



How to get started (step-by-step)

- 1. Get your <u>driver's licence</u> most jobs require it
- 2. Get your <u>White Card</u> basic safety training before you go onsite
- 3. Do a Cert II at TAFE gives you the basic knowledge
- 4. Apply for a paid apprenticeship 4 years on the job + study
- 5. Finish your Cert III and apply for your electrician's licence
- 6. Obtain GWO certification and other relevant training
- 7. Look for jobs ask TAFE, check job boards, or yarn with AES
- 8. Gain experience work with a good crew and learn the ropes
- 9. Grow your career lead teams, specialise or start your own business

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 Authority (VRQA) Provides information on apprenticeships and training schemes in Victoria
- School-Based Apprenticeships and Traineeships (SBATs) – for secondary students, offering a pathway combining school studies with part-time apprenticeships
- Apprenticeships Victoria connects you with training and job opportunities
- New Energy Apprenticeships Program get up to \$10,000 for gear, tools and travel



Battery technicians install and maintain systems that store power like household batteries, community-scale storage or big batteries connected to the grid. These systems help communities manage energy use, store excess solar and keep power going during outages. In Victoria, the push towards renewable energy has led to a significant increase in battery storage projects. This includes residential installations, commercial systems, and large-scale battery energy storage systems (BESS) that support the electricity grid. This is a specialised area for electricians who want to be part of the clean energy transition building smarter, more reliable systems that work for mob and Country.

Why it matters for mob

Battery storage is essential for reliable and sustainable energy. For mob, this means opportunities to work on projects that support community energy independence, help reduce electricity costs in remote areas, and contribute to sustainable practices that protect Country. It's a hands-on role that combines technical skills with meaningful impact.

This job suits you if you ...

- are a qualified electrician looking to specialise in renewable energy
- · enjoy technical, hands-on work
- are interested in sustainable practices and community development
- want a career with strong job prospects in a growing industry.

Add-ons to get site-ready

- White Card (construction safety training) required before going onsite
- · CPR and low voltage rescue training updated yearly
- Working at heights / first aid training often required by employers
- Grid-Connected Battery Storage Systems Course offered by the Clean Energy Council, this course covers the design and installation of grid-connected battery storage systems, ensuring compliance with Australian standards
- Solar Accreditation Australia (SAA) accreditation required to install solar systems eligible for government rebates.

A day on the tools

Work environments vary and safety is paramount, especially when dealing with electrical systems and heavy equipment.



Start earlyCheck tools, safety gear and job plans.



Head to site Which could be a home, business or large-scale facility.



Install battery units, connect them to existing systems and ensure safety standards are met.

Get to work



Wrap up
Make sure the system
works correctly and
efficiently, explain how
to use and maintain the
system to the customer.

<u>Certificate II in Electrotechnology Studies</u> (<u>Pre-vocational</u>)

A 6 month foundational course providing essential electrical knowledge and skills to prepare for an apprenticeship.

Certificate III in Electrotechnology Electrician

A 4-year paid apprenticeship mixing hands-on site work and TAFE study (usually delivered in person, often weekly or in blocks – some providers offer regional delivery or travel support if needed). You'll learn how to wire homes, fix faults and work on clean energy sites.

Electrician's License

Once you finish your apprenticeship, you apply to Energy Safe Victoria for you're A-grade license. This lets you work on your own and take on bigger jobs.

Career pathways

There are many directions you can take once you're qualified. Here are some roles you might step into as you gain experience:

Lead technician

Supervise jobs and junior techs onsite.

System designer

Plan and design battery setups for homes or businesses.

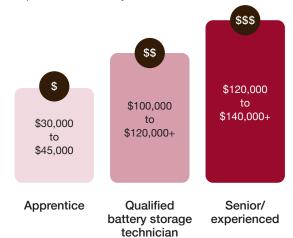
Energy consultant

Give advice on energy use, storage and savings.

Business owner

Run your own battery installation or service business.

What you can earn



Region	Opportunities
Melbourne Metro	High demand for residential and commercial installations
2. Geelong	Growing market with new housing developments
3. Ballarat	Expansion in both residential and industrial battery projects
4. Bendigo	Strong community interest in sustainable energy solutions
5. Gippsland	Agricultural sector adopting battery storage for energy needs

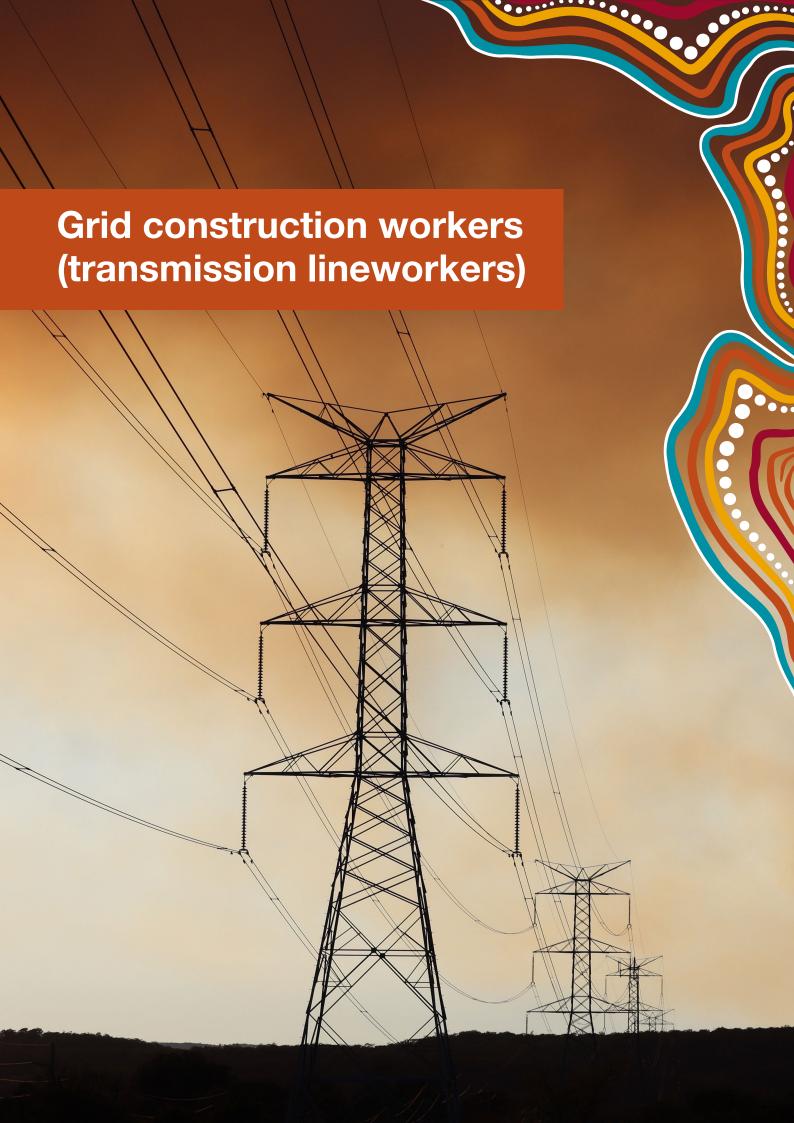
Jobs in the decarbonisation workforce are also located outside of these hotspots, visit the <u>Solar Victoria Training and</u> Workforce Development page.



How to get started (step-by-step)

- 1. Get your driver's licence most jobs require it
- 2. Get your <u>White Card</u> basic safety training before you go onsite
- 3. Do a Cert II at TAFE gives you the basics
- 4. Apply for a paid apprenticeship 4 years on the job + study
- 5. Finish your Cert III and apply for your electrician's licence
- 6. Complete the Grid-Connected Battery Storage Systems Designer Installer Skill Set
- 7. Obtain SAA accreditation necessary for battery installation work
- 8. Look for jobs ask TAFE, check job boards or yarn with AES
- 9. Gain experience work with a good crew and learn the ropes
- Grow your career lead teams, specialise or start your own business

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Grid construction workers build and maintain the high-voltage powerlines that move clean energy from where it's made – like solar and wind farms – to where it's used. In Victoria, this work is critical as the state upgrades its grid to support renewable energy projects and replace retiring coal-fired power stations. You'll work in teams to install towers, string wires, and keep everything safe and working. It's outdoor, physical work that connects power to place and offers long-term jobs in regional areas where mob already live.

Why it matters for mob

These are not just infrastructure jobs – they're nation-building jobs. Victoria is overhauling its electricity grid to carry clean energy across vast distances, and that means thousands of new roles in regional and remote areas. For mob, this is a pathway into reliable, well-paid work that doesn't require a degree and puts you at the centre of the state's biggest energy projects. Whether you stay on the tools or move into leadership, it's a solid career built on teamwork, pride and contribution.

This job suits you if you ...

- · enjoy hands-on, physical work
- · are comfortable working at heights and outdoors
- · can follow safety procedures and work in a team
- · are willing to travel and work in different locations
- have or can get a <u>driver's licence</u> (often needed for access to site).

Add-ons to get site-ready

- White Card (construction safety training) required before going onsite
- · First aid training often required before starting
- Working at heights / elevated work platform depends on the site.

A day on the tools

Work is usually outdoors in all weather. It involves working at heights, using safety gear and being physically active. Crews rely on each other, so communication and teamwork are key.



Start early

Prepare gear, check safety systems and plan the day's tasks with your crew.



Head to site

Could be a remote tower install, a grid connection upgrade or ongoing maintenance.



Get to work

Climb and build, install poles and wires, lift and bolt components and follow safety procedures.



Wrap up

Log progress, debrief with the crew and check site safety before heading out.

<u>Certificate II in Electrotechnology Studies</u> (<u>Pre-vocational</u>)

A 6-month course introducing you to the basics of transmission line work, including safety and equipment use.

<u>Certificate III in ESI – Transmission</u> <u>Overhead</u>

A 4-year paid apprenticeship combining on-thejob training with TAFE study (usually delivered in person, often weekly or in blocks – some providers offer regional delivery or travel support if needed). You'll learn how to construct and maintain high-voltage transmission lines.

No trade licence required; however, additional certifications may be needed depending on your role.

Career pathways

There are many directions you can take once you're qualified. Here are some roles you might step into as you gain experience:

Transmission lineworker

Build and maintain high-voltage powerlines.

Live lineworker

Specialise in working on live (energised) lines.

Team leader or supervisor

Manage crews and oversee projects.

Trainer or assessor

Teach and assess new apprentices.

Project manager

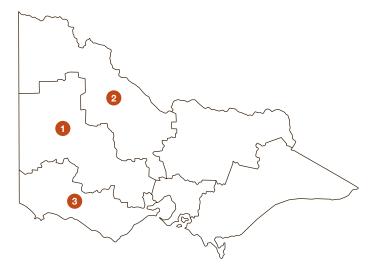
Plan and coordinate large-scale transmission projects.

What you can earn



Region	Opportunities
Western Victoria	Western Renewables Link – a 190km transmission line connecting Bulgana to Sydenham
2. North-West Victoria	VNI West – a 500kV interconnector enhancing renewable energy integration between VIC and NSW
3. South-West Victoria	Mortlake Turn-In – connecting existing transmission lines to the Mortlake Terminal Station

Jobs in the decarbonisation workforce are also located outside of these hotspots, visit the <u>First Nations Clean Energy Network</u> explore local projects involving mob.



How to get started (step-by-step)

- 1. Get your <u>driver's licence</u> many sites are regional
- 2. Get your White Card basic safety training
- 3. Try a Cert II in Transmission Line Construction– a good way to test the waters
- 4. Apply for a paid apprenticeship through local TAFE, jobs boards or mob-led programs
- 5. Complete your Cert III and build on-the-job experience
- 6. Add safety tickets (like first aid, working at heights) to expand options
- 7. Apply for lineworker roles and ask if support is available for mob
- 8. Grow your skills move into specialist or leadership roles over time
- 9. Grow your career lead teams, specialise or start your own business

- Aboriginal Employment Strategy (AES) helps mob get apprenticeships and support through the trade
- <u>CareerTrackers</u> paid internships and wraparound support for First Nations students
- Victorian Registration and Qualifications
 Authority (VRQA) provides information on apprenticeships and training schemes in Victoria
- School-Based Apprenticeships and Traineeships (SBATs) – for secondary students, offering a pathway combining school studies with part-time apprenticeships
- New Energy Apprenticeships Program get up to \$10,000 for gear, tools and travel



Getting job-ready

Need a birth certificate?

Local legal aid services or your land council can help so you can apply for ID and Working With Children Checks.

Worried about a police check or Working With Children Check?

Some jobs still accept you – check first before ruling yourself out.

No car or licence?

Some training programs offer lessons or help you get your <u>licence</u> – ask your job provider or TAFE.

Need gear or tools?

Programs like the New Energy Apprenticeships can help with uniforms, boots, and other job cost.

No internet or a computer?

Try your local land council, library or job hub for help getting online, writing and printing or applying for jobs.

Need help with people skills or confidence?

Programs can help with communication, teamwork or speaking up onsite. These are called job-ready skills and they matter too – ask your job provider or TAFE for support.

Unsure what's right for you?

Pre-employment programs, short courses or workshops can help you test it out before committing.

Living away from home

DIDO/FIFO

Some roles involve flying or driving to site for 1–3 weeks, then coming home for breaks.

Relocation help

Some employers may offer support or grants to help you move closer to work or training.

Accommodation support

You might stay in camp-style housing, share housing or access subsidies.

Cultural safety at work

Some employers offer yarning circles, support staff or Elders – look for places that value mob.

Homesickness and wellbeing

It's normal to miss home. Many programs now offer mental health and cultural support, especially for young workers.



Programs just for mob

Entry pathways and outreach

- <u>Powering Up Workshops</u> learn about jobs, projects and opportunities near you
- Aurora Indigenous Pathways Portal a comprehensive database of scholarships and resources for First Nations students, including access to support programs and mentoring
- PowerMakers Program helps grow mob into leaders in clean energy

Apprenticeships and vocational support

- Aboriginal Employment Strategy (AES) helps mob get apprenticeships and stay supported while on the job
- Busy at Work First Nation's Apprenticeships culturally sensitive support for First Nations apprentices, partnering with local organisations to empower apprentices and employers
- TAFE Indigenous Centres tutoring, wellbeing and cultural support

Higher education and university support

- <u>CareerTrackers</u> paid internships and wraparound support for First Nations students
- University Indigenous Centres providing tutoring, cultural safety and wellbeing support

Mentoring and professional networks

- National Indigenous STEM Professional Network mentoring, professional networking and connection to career pathway opportunities
- National Indigenous Australians Agency Indigenous Skills and Employment Program (ISEP) - a place-based program connecting First Nations people to jobs, training, and career advancement opportunities

Other support

- New Energy Apprenticeships Program up to \$10,000 support for apprentices in clean energy
- <u>Victoria Apprenticeship Finder Tool</u> search local jobs or training providers
- <u>TAFE Victoria Reconnect Program</u> enabling programs, short courses, tutoring and wrap around support pathways into training
- Victorian Registration and Qualifications
 <u>Authority (VRQA)</u> provides information on apprenticeships and training schemes in Victoria
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