

Renewable energy: powering jobs and regional communities

Employment opportunities and clean energy



1,500

people employed by a
600 MW wind farm during
the construction phase



\$10m

in local benefit funds
provided by clean energy
projects in 2023

Are clean energy projects providing jobs to regional Australia?

Clean energy projects are creating tens of thousands of jobs. There are an estimated 30,000 people working in clean energy already.¹ If all the projects in the pipeline to 2030 go ahead, this will create an additional 450,000 jobs during construction².

What are the economic benefits of clean energy projects beyond on-site employment?

Local businesses across the supply chain including transport and manufacturing can benefit from procurement opportunities. Hospitality and accommodation providers will see increased traffic while local infrastructure may be upgraded to support project delivery.

Can clean energy projects support community development?

Clean energy projects support community development priorities by contributing to local benefit funds. Clean energy projects are already providing more than \$10 million towards local benefit funds annually.

What are the employment opportunities during the construction phase of a project?

The construction of a single 600 MW wind farm can employ approximately 1,500 workers during construction. From electricians, engineers and technicians overseeing the technical aspects to construction workers like concreters and labourers laying the foundation, or truck drivers delivering the components, each role is pivotal.

Clean energy projects create ongoing employment, provide opportunities to upskill residents, boost local business and improve local infrastructure.

Are there ongoing employment opportunities?

Most clean energy jobs are created during the construction phase, which typically lasts 1-2 years. Workers will develop valuable skills that will take them to the next clean energy project. Once built, projects require a skilled workforce to run and maintain. These are ongoing, well-paying jobs over its 30-year operating life.

¹ Clean Energy Council. (2022). Skilling the Energy Transition: https://assets.cleanenergycouncil.org.au/documents/CEC_Skilling-the-Energy-Transition-2022.pdf

² Construction jobs: <https://www.cleanenergycouncil.org.au/news/jobs-report-guides-future-for-the-clean-energy-workforce#:~:text=450%2C000%20jobs%20in%20construction%20of,electrical%20engineers%20currently%20born%20overseas>



A typical **300 MW** project creates the following jobs³:

Technology	Construction jobs	Build time (years)	Operations and maintenance jobs	Operating life (years)
Wind	810	2	66	30
Utility solar	630	1	33	30
Battery storage	180	1	12	30

What are some examples of the career opportunities available in the sector?

There are people on the ground, in offices, operating large machinery, at the top of wind turbine towers, in communities, or underground at hydro power plants. There are people working with wind, water, the sun, and the earth. Primary and local subcontractors are involved in the construction and then operation and maintenance of these large-scale projects.

Is the clean energy workforce helping regional centres?

Skill shortages are often exacerbated in regional Australia. The 2023 Skills Priority List, which tracks occupations in shortage across the country, found that 100% of Construction Trades Workers, 73% of Electrotechnology and Telecommunications Trades Workers and 100% of Engineering Professionals occupations are in current and enduring shortage nationally⁴. These include degreed roles, tradespeople and technicians, machine operators and civil workers that are critical for the clean energy transition.

Are there upskilling opportunities for locals?

Renewable energy projects go beyond providing jobs, they offer opportunities for upskilling residents. Local residents gain expertise and skills that extends beyond the immediate project, making them versatile and employable in other industries. This commitment to training and skill development ensures that the community is prepared for the evolving demands of the energy transition, promoting long-term career sustainability.

Is the growth of renewable projects supporting manufacturing?

The growth of renewable energy projects is helping to increase manufacturing. This is largely because renewable energy can provide cheap energy for manufacturing processes. A clear example of this is Australia's biggest aluminium smelter - Tomago, near Newcastle, pushing ahead with plans to power its operations with renewables. Renewables will soon power Australia's largest aluminium smelter, employing more than 1,000 people.



³ 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: https://racefor2030.com.au/wp-content/uploads/2023/03/FINAL-ISP_Workforce_Rev1-1.pdf
⁴ Jobs and Skills Australia. (2023). 2023 Skills Priority List Key Findings Report: <https://www.jobsandskills.gov.au/sites/default/files/2023-10/2023%20SPL%20Key%20Findings%20Report.pdf>



The clean energy workforce is:

1. **Technical** with engineering-type roles, including civil, electrical and mechanical trades, accounting for approximately half of all jobs.
2. **Passionate and resilient**, attracting problem solvers and lifelong learners working hard to decarbonise Australia.
3. **Highly skilled**, with higher proportions of tertiary and trade qualifications than the broader Australian workforce.
4. **A pathway to employment**, with many entry-level labouring jobs in construction.

Is the expansion of renewable energy projects creating more transport and logistics work?

The transportation of renewable energy components, including wind turbine blades and solar panels, requires a well-coordinated logistics network. This has resulted in job growth in areas such as trucking, shipping, and warehousing.

Are there monitoring and maintenance jobs?

As renewable energy infrastructure expands, so does the demand for professionals involved in monitoring and maintenance. These are ongoing jobs, lasting for the life of the project, usually 25-30 years. These roles are also usually filled by people living in the communities hosting renewable energy projects.

Are there roles for project management?

From community engagement and environmental approvals to construction oversight and financial management, project managers play a crucial role in the successful implementation of renewable energy initiatives. The Clean Energy Council reported that the renewable energy sector supported over 7,000 jobs in project development and construction in 2021.

Benefit-sharing schemes are used to fund local initiatives, neighbourhood groups and provide scholarships.



Top 5 clean energy facts



Clean energy projects will create
450k jobs to 2030



Clean energy is already supplying almost
40% of Australia's electricity



As a windswept and sun-drenched land
Australia has an
abundance of cheap and
reliable renewable energy



Australia is already feeling the effects of
a changing climate, with more intense
heatwaves, droughts, floods, fires,
ocean acidification and rising sea levels.

Clean energy is the best way
to reduce emissions and
prevent the worst impacts of
climate change



Clean energy projects are delivering
millions of dollars in
community benefit
schemes



Learn more about clean energy careers and pathways



Careers for Net Zero

Showcasing career opportunities to
help deliver an equitable, prosperous
and net-zero-emissions Australia



CEC Clean Energy Careers Guide

Check out the latest careers in clean
energy. Provides breakdowns by
occupation type and career pathway.



Terra.do

A job board for verified climate jobs.



Women in Renewables

A CEC program enabling and championing
women working in renewables, through
initiatives such as the Career Launcher,
mentoring and scholarships.



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