

EMPOWERING EVERYONE

DIVERSITY IN THE AUSTRALIAN CLEAN ENERGY SECTOR



“I value diversity in the workplace. Diversity brings balance and a range of viewpoints that, while sometimes challenging, only serves to make up better people and to build a stronger and more relevant business.”

- Survey respondent

ABOUT THE SURVEY

In collaboration with the Australian Power Institute (API) and the Electrical Trades Union (ETU), the Clean Energy Council (CEC) surveyed the Australian renewable energy sector on the professional and social identities that make up its workforce.

This is the first time that such a survey has been conducted, and the findings will provide a baseline for improvement.

The survey was conducted from 23 August 2021 to 17 September 2021. It asked 23 questions about issues such as:

- the size and type of employer organisations
- employees' educational and cultural background, age, caring responsibilities and disabilities
- whether individuals had felt disadvantaged due to their diversity.

The survey was voluntary, strictly confidential and anonymous. It was distributed by various means through the collaborative efforts of the CEC, API and ETU.

All analysis in this report was undertaken by the CEC alone and does not represent the views of either the API or the ETU.

23

questions in
the survey



WHO RESPONDED

A total of **1274** people completed the survey.

The clean energy industry in Australia comprises the following workforce categories:

- Small-scale solar and battery, which consists of manufacturers, retailers and installers, many of which are small to medium electrical businesses.
- Utility-scale renewable energy, which can be divided into the following categories:
 - the trade-based workforce, which is engaged over the period of construction of a large-scale renewable energy project
 - the trade and technician workforce, which is engaged on an ongoing basis to operate and maintain wind and solar farms and hydropower projects
 - the permanent office-based workforce, which provides the business of renewable energy, including planning, financing, design, construction, and operation and maintenance.

Survey respondents covered the full gamut of technologies and service types delivered by the sector. However, the trade-based construction workforce in utility-scale renewable energy was heavily underrepresented.

As a result, some metrics cannot be reported against the entire clean energy workforce as this would be misleading. Instead, on those metrics of concern, we report within certain categories only, such as small-scale solar/batteries, utility-scale renewable energy or university-qualified employees.

1274

people completed
the survey



WHY DIVERSITY IS IMPORTANT

Energy is an essential service, meaning that our customers are **all** Australians and Australian communities.

On a fundamental level, our workplaces should reflect and respect the ideals and perspectives of our customers. On a practical level, businesses with inclusive practices and high levels of diversity are more successful, boasting higher profits and performance and tending to have fewer safety incidents.

Research by the Diversity Council of Australia¹ shows that diverse and inclusive organisations are three times more likely to be effective, five times more likely to be innovative and three times more likely to provide excellent customer service.

When employees feel valued and connected at work, they are five times more likely to be satisfied with their job and three times less likely to leave it. Employers that are known to be inclusive and have employees that are empowered to bring their own true self to work tend to attract a larger pool of highly skilled and capable talent. In the context of a growing industry with concerns around skills shortages, expanding the talent pool is critical.



Employers

The Australian clean energy sector consists of a variety of businesses across a range of technologies.

Larger organisations dominate the utility-scale renewable energy sector, with almost 50 per cent of the workforce employed by an organisation with more than 200 employees.

In contrast, almost 60 per cent of the small-scale renewable energy workforce is either self-employed or works for an organisation with fewer than 200 employees. Across the entire workforce, engineering and information technology is the primary field of qualification, supporting almost half the workforce.

Through the data shown below and on the following pages, we start to understand the types of employers that make up the sector and the skills and experience that they value and rely on. This level of data also allows us to analyse key metrics across different categories to identify trends and determine responses that are appropriate to the context.

TYPES OF BUSINESSES



RANGE OF TECHNOLOGIES



Battery



Bioenergy



Coal



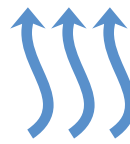
Demand



Electric vehicles



Energy efficiency



Geothermal



Hydro



Hydrogen



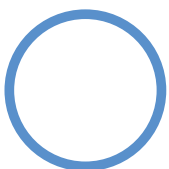
Marine



Micro-grid



Mining



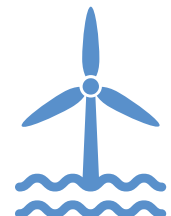
No technology preference (legal firms, finance companies etc.)



Solar

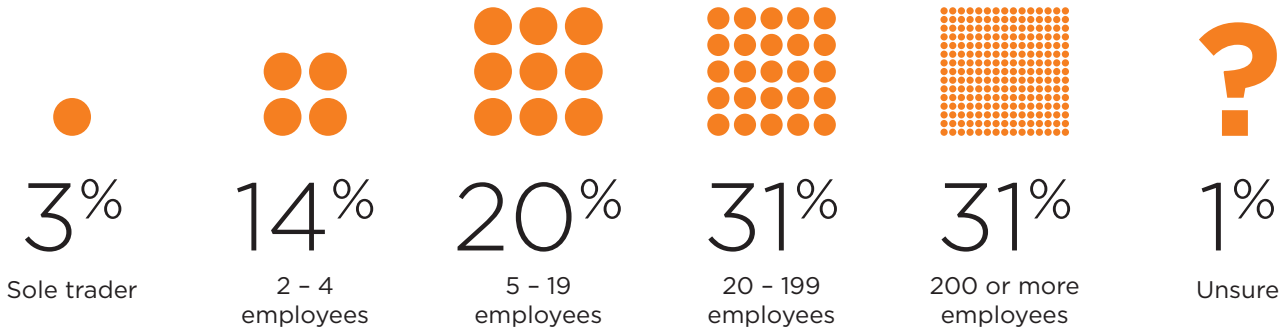


Wind - onshore

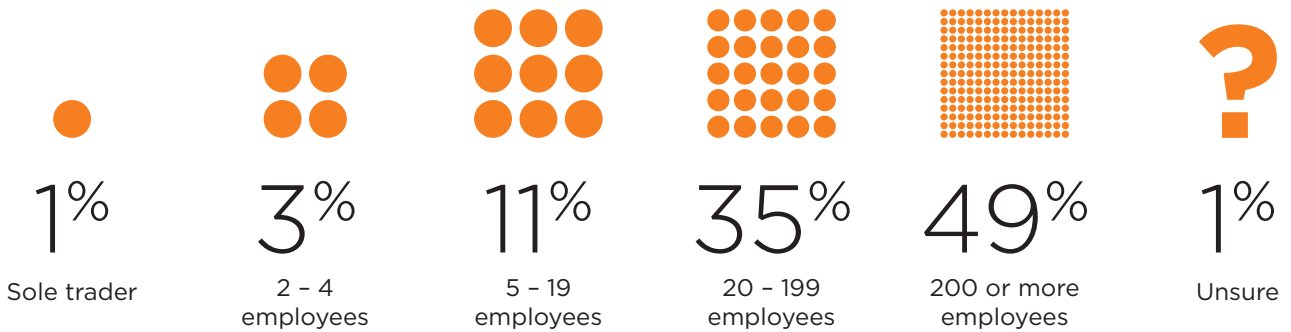


Wind - offshore

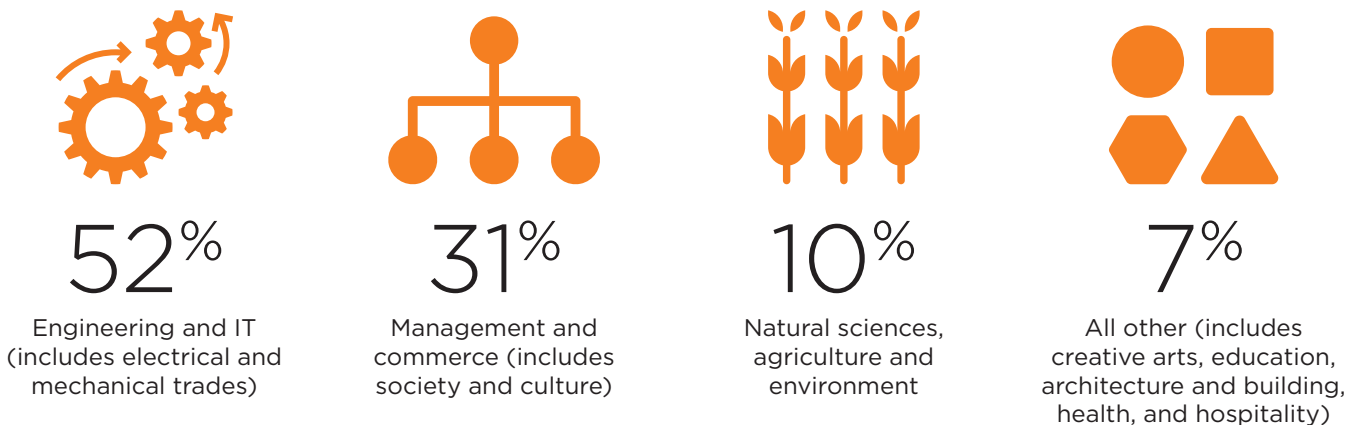
SMALL-SCALE RENEWABLE ENERGY SECTOR - SIZE OF ORGANISATIONS



UTILITY-SCALE RENEWABLE ENERGY SECTOR - SIZE OF ORGANISATIONS



MAIN FIELD OF STUDY FOR QUALIFICATION



Gender

The clean energy sector remains a masculine world, with more than 60 per cent of the workforce identifying as men. The representation of women drops further as we focus in on senior leadership roles or board positions.

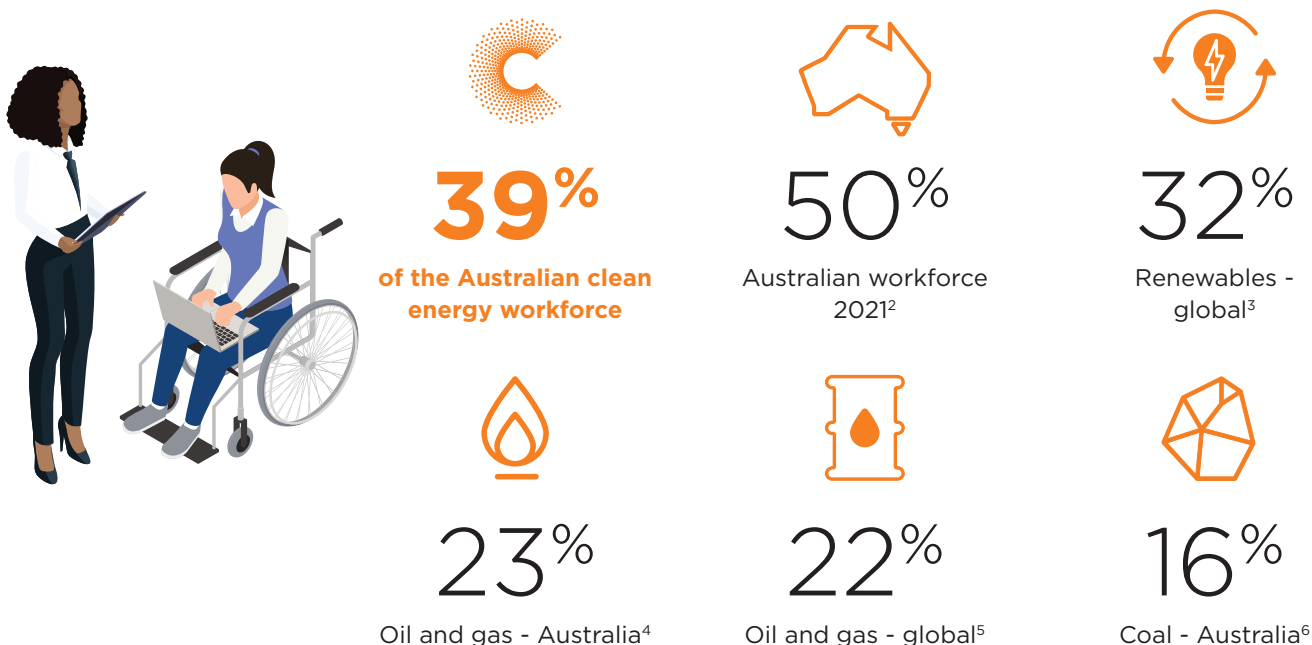
Any voluntary survey on an issue that holds different levels of importance to different individuals is likely to introduce some form of self-selection bias.

In this instance, it is likely that people that feel more marginalised by their diversity are more likely to see value in, and participate in, a workforce diversity survey. The effect of this is an overrepresentation on some metrics.

Anecdotal evidence, and data from other countries, suggests that the actual representation of women in the clean energy sector may be lower than what we have found in this survey. The underrepresentation of the construction trade workforce has likely also added to the skew towards a higher female representation.

Nonetheless, the data allows us to compare between categories. For example, the data shows that representation of university-qualified women decreases in leadership roles and above 40 years of age.

FEMALE REPRESENTATION



2 Workplace Gender Equality Agency, *WGEA Data Explorer*, All industries, data.wgea.gov.au/industries/1

3 International Renewable Energy Agency, *Renewable Energy: A Gender Perspective*, January 2019, irena.org/-/media/Files/IRENA/Agency/Publication/2019/Jan/IRENA_Gender_perspective_2019.pdf

4 Workplace Gender Equality Agency, *WGEA Data Explorer*, Comparing oil and gas extraction and coal mining, data.wgea.gov.au/comparison/?id1=90&id2=240

5 International Renewable Energy Agency, *Renewable Energy: A Gender Perspective*, January 2019, irena.org/-/media/Files/IRENA/Agency/Publication/2019/Jan/IRENA_Gender_perspective_2019.pdf

6 Workplace Gender Equality Agency, *WGEA Data Explorer*, Comparing oil and gas extraction and coal mining, data.wgea.gov.au/comparison/?id1=90&id2=240

FEMALE REPRESENTATION BY AGE



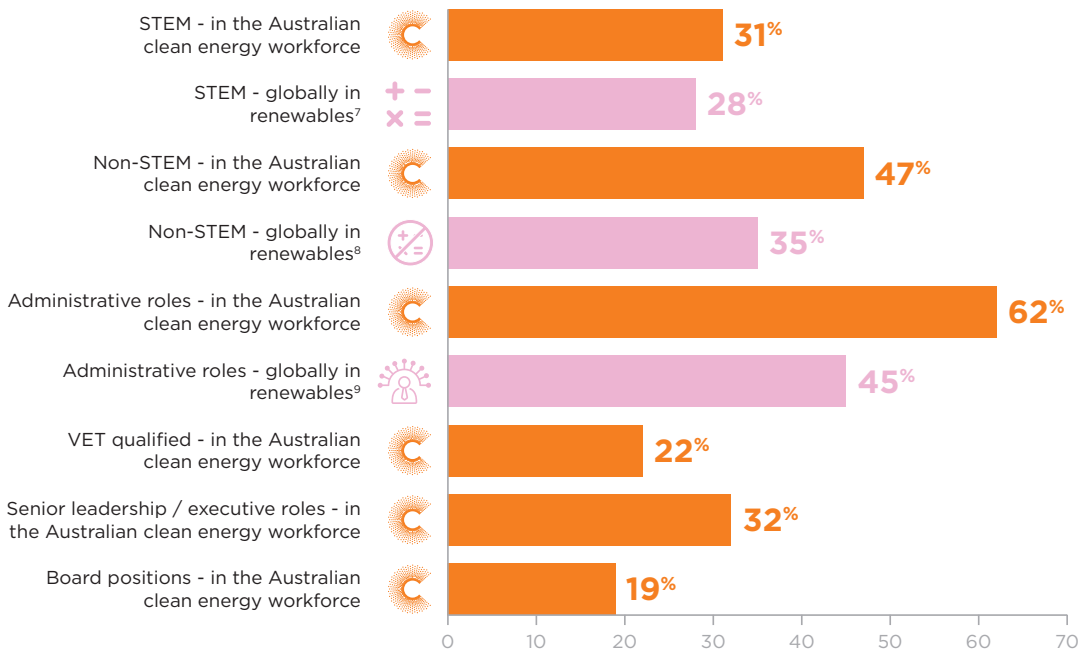
46%

Under 40s

33%

Over 40s

FEMALE REPRESENTATION ACROSS CATEGORIES



STEM: Science, technology, environment and mathematics
 VET: Vocational education and training

7 International Renewable Energy Agency, *Renewable Energy: A Gender Perspective*, January 2019, [irena.org/-/media/Files/IRENA/Agency/Publication/2019/Jan/IRENA_Gender_perspective_2019.pdf](https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2019/Jan/IRENA_Gender_perspective_2019.pdf)

8 Ibid.

9 Ibid.

Aboriginal and Torres Strait Islander employment

Indigenous participation in the workforce is mostly in the small-scale renewable energy sector and mostly in the form of sole traders or in organisations that employ fewer than 20 staff.

INDIGENOUS PARTICIPATION



0.8%

of the Australian clean energy workforce



3.3%

of the Australian population¹⁰

LGBTIQ+ representation



13%

of the Australian clean energy workforce



11%

of the Australian population¹¹



¹⁰ Australian Bureau of Statistics, *Estimates of Aboriginal and Torres Strait Islander Australians*, 31 August 2018, abs.gov.au/statistics/people/aboriginal-and-torres-strait-islander-peoples/estimates-aboriginal-and-torres-strait-islander-australians/latest-release
¹¹ Department of Health and Ageing, Australian Government, *National Lesbian, Gay, Bisexual, Transgender and Intersex (LGBTI): Ageing and Aged Care Strategy*, November 2012, acon.org.au/wp-content/uploads/2015/04/National-LGBTI-Ageing-and-Aged-Care-Strategy-2013.pdf

Age

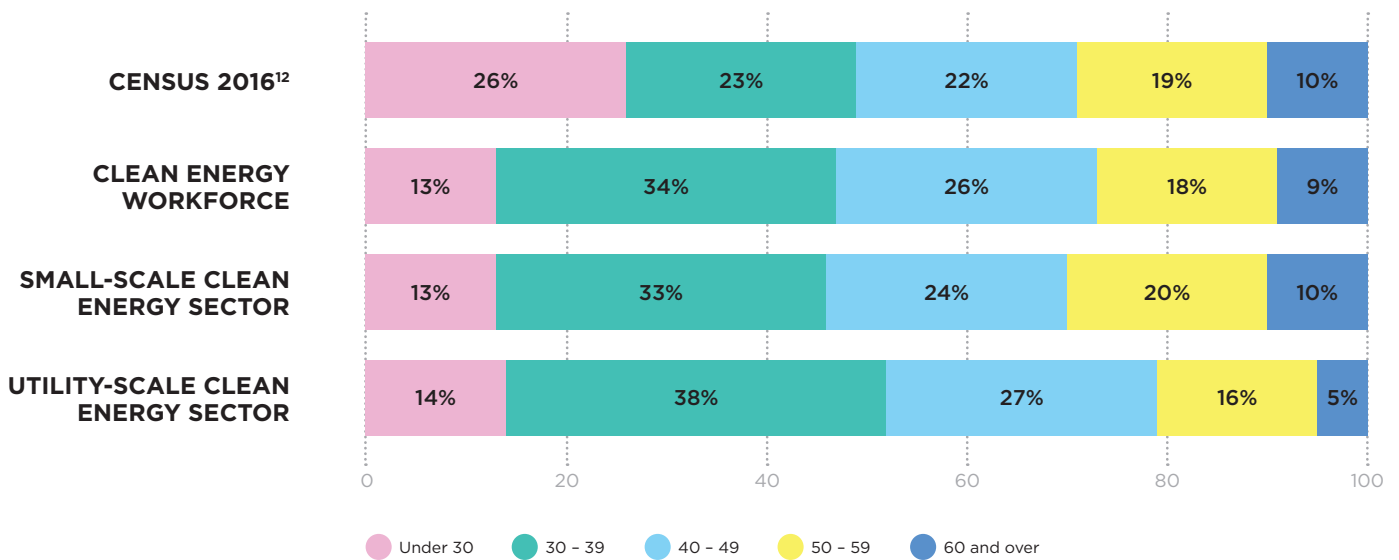
The clean energy workforce is a mature workforce, with many roles requiring a developed level of skill and experience.

Smaller organisations demonstrate less of a capacity to employ a younger workforce. As a result, the small-scale renewable energy sector has a slightly older workforce, but no utility-scale technology was more or less likely to employ a younger or older workforce.

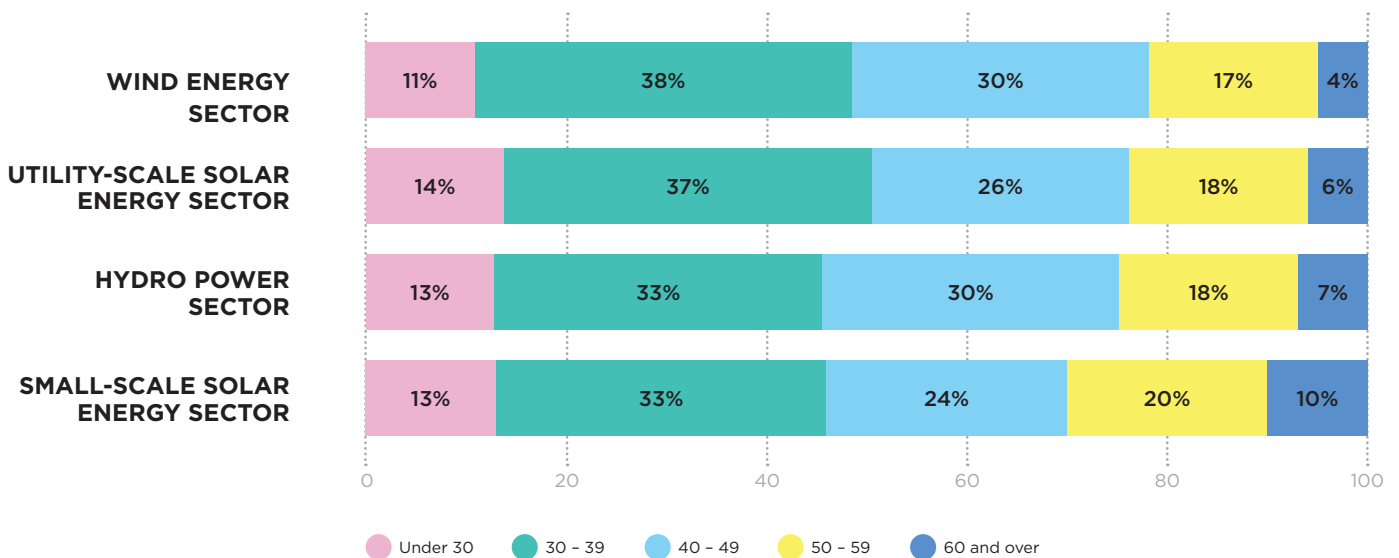
<30

age group within which casualisation is the highest

AGE BY CATEGORY



AGE BY TECHNOLOGY



Cultural background

The level of cultural diversity is consistent across technologies, gender and employment status (full-time, part-time, casual or contract).

However, the 30-40 age group is the most diverse, while the over 60 category is the least diverse.

The higher the level of qualification, the greater the level of diversity, but field of study is not a strong determinant of diversity. At the board level, there is an almost even split between Australian and non-Australian backgrounds.

>60

the least culturally diverse age category

BORN IN AUSTRALIA



68%

of the Australian clean energy workforce

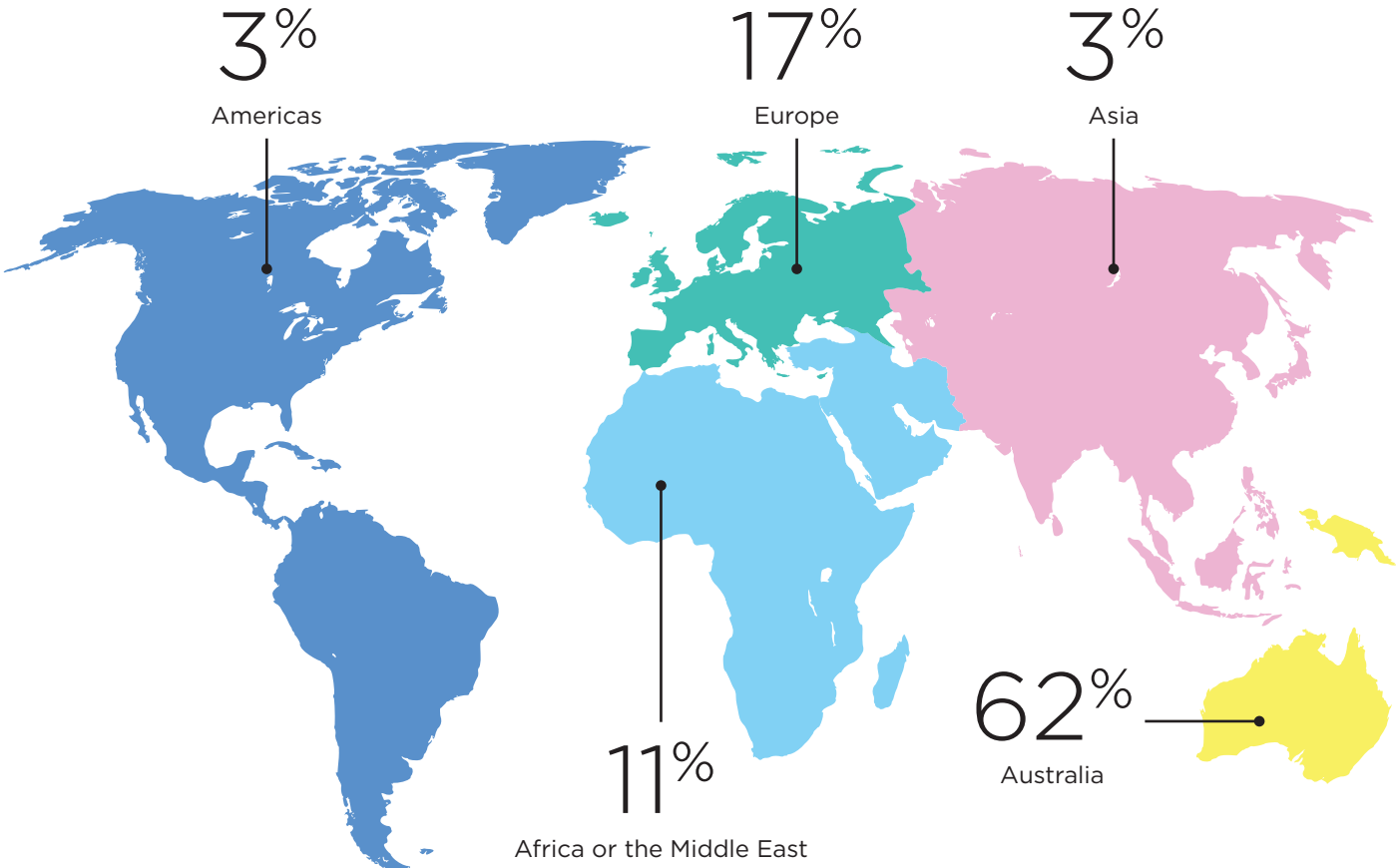


67%

of the Australian population¹³

England, India, New Zealand and China were the top two countries of birth after Australia, matching the Census data.

CULTURAL BACKGROUND



¹³ Australian Bureau of Statistics, 2016 Census of Population and Housing

Caring responsibilities

In the context of the COVID-19 pandemic and state lockdowns, caring metrics are not comparable with historical data from other sectors or the broader economy but they provide insight into how the clean energy workforce has been impacted and managed over the last couple of years.

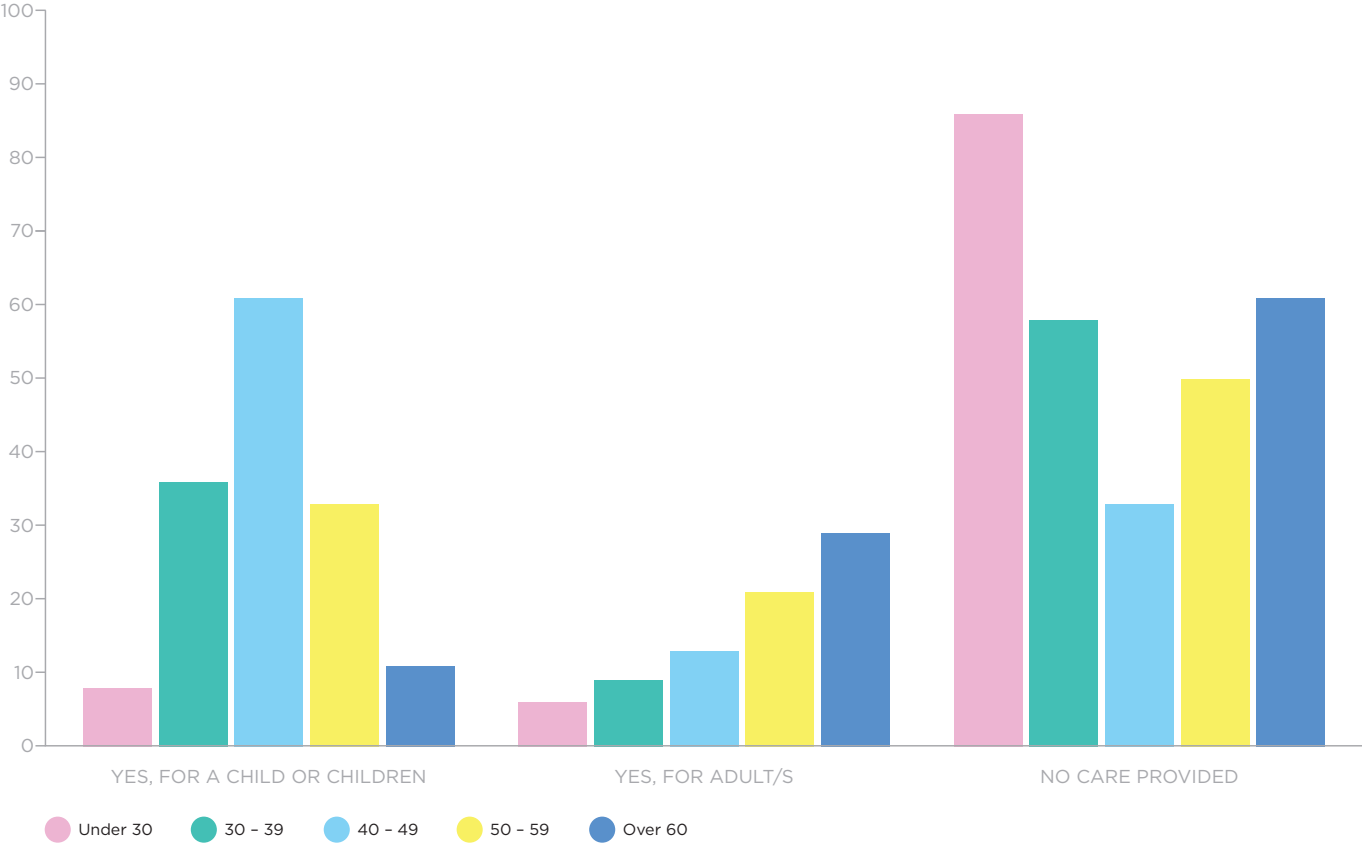
In the 30–40 age group, a third of the workforce has provided unpaid care to children while employed. In the 40–50 age group, this figure rises to 60 per cent.

Unpaid care to adults was highest in the over 50s age group, with 20–30 per cent of that age group implicated. These caring responsibilities are shared among men and women in the clean energy workforce.

60%

of people in the 40–50 age group have provided unpaid childcare while employed

PROVIDED UNPAID CARE, HELP OR ASSISTANCE IN THE LAST TWO WEEKS



Disability and disadvantage at work

DISABILITY

In contrast to the national data, the employment of people with a disability in the clean energy workforce does not vary with gender or age.

PEOPLE WITH A DISABILITY IN THE WORKFORCE



3%

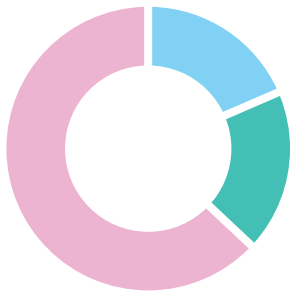
of the Australian clean energy workforce



18%

of the Australian population¹⁴

WORKPLACE MADE SATISFACTORY ADJUSTMENTS?



Yes	63%
No	19%
Prefer not to say	19%

DISADVANTAGE AT WORK

Key themes emerge when employees are asked about how their working life may have been affected by their diversity.

The top concern relates to sexism. Women in the clean energy sector experience different forms of bullying and harassment, and it is not uncommon for a woman to feel that they have been ignored or excluded on discussions where they had a contribution to make. Some women feel that they have been overlooked for promotion or that they are expected to carry out higher duties for lower salaries than their male counterparts.

Other issues relate to:

- workplace entitlements, particularly around parental leave, which are not always applied equitably in non-traditional family settings such as same-sex couples
- ageism, which was felt by some employees, particularly talented young employees commenting that older colleagues are given priority for promotion despite performing at a lower level of competency
- language and visa status, particularly at the recruitment stage, which were highlighted as bases for discrimination
- caring duties, for both children and adults, which were noted as rationales for employees being excluded from projects.

19%

of employees have experienced disadvantage at work due to their diversity

HAVE YOU EXPERIENCED DISADVANTAGE AT WORK DUE TO YOUR DIVERSITY?



“Being a female meant I was spoken over, people redid my work because they didn’t believe that I’d already done it and people didn’t believe me until a man told them the same thing”

Conclusions

WHAT DOES THIS ALL MEAN?

Diversity and inclusion are important issues for many organisations in the industry.

It is likely that there has been some self-selection bias from individuals that feel less well represented in the workforce and thus identify more strongly with a diversity agenda. However, this first effort provides a baseline that will allow the industry to observe change over time as measures are implemented at the government, industry and organisational level.

THE GOOD NEWS

There are positive findings from this survey.

- Female representation is higher across the Australian clean energy workforce than across some other sectors and internationally.
- The workforce is rich in cultural diversity.
- The clean energy workforce is highly skilled, with an over-representation of graduates and post-graduates.
- The data does not suggest any systemic discrimination towards LGBTIQ+ status or cultural background.

WHAT WE CAN WORK ON

However, there are opportunities to do better.

While female representation is generally encouraging, it decreases at the higher echelons. This suggests that women may be being overlooked for promotion. Organisational culture starts at the top, which is where more women are needed.

Female participation is very low in the trades. This is not unique to clean energy, but we can work with relevant stakeholders to help improve the attractiveness and retention of women in the trades.

The sector already struggles to recruit enough engineers and electricians, and this challenge is only likely to increase over the next decade. If we are to meet this challenge, we need to invest more in recruiting and training young workers graduating from university or in apprenticeships.

There is scope to bolster Aboriginal and Torres Strait Islander employment across all parts of the industry in both blue-collar and white-collar roles. This should be considered in close collaboration and consultation with Indigenous groups.

More research and information is needed on why the rate of disability is so low in the workforce and how employers can better accommodate employees that are suffering from a mental or physical disability.

We also need to address and eliminate any culture of sexism or other forms of discrimination in the workplace if we want the clean energy sector to be seen as a first choice employer.

WHAT'S NEXT?

This is the first time that the clean energy sector has been surveyed in this manner.

The low representation of the construction trade workforce in the data needs to be remedied. We are working on better ways to engage those workers in future surveys to capture that important data.

The next step is to understand on a qualitative level what clean energy employers are doing to ensure an inclusive and equitable workplace that supports diversity outcomes. We will survey clean energy employers on what measures, policies and activities they are implementing, which ones work, which ones do not, where the challenges exist and how we can raise the bar as an industry. Employer data will also help triangulate results from this employee survey to correct for self-selection bias or other biases in the data.

Finally, we will use these findings to develop industry-level programs and strategies towards a more inclusive and equitable clean energy sector. In this, we will work with governments, NGOs and unions to progress a broad and practical conversation about the importance and benefits of diversity.

“Keep putting a spotlight on diversity so that organisations put intentional strategies and actions in place to attract diverse talent and foster a culture that celebrates diversity and equality. It usually starts at the top.”