

**Energy Skills Australia**  
Submission to the Building Women Career's  
Program – Consultation Paper

For Department of Employment and Workplace Relations

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# Introduction

Established by industry for industry in 1995, Energy Skills Australia (ESA), has been representing the energy sector for over 29 years and is an independent, not for profit, bipartite company committed to supporting high quality training and workforce development within and beyond the energy industries.

Providing industry stewardship, we exist to ensure Australia's energy sectors have access to a highly skilled and effective workforce in following energy related industry sectors:

- Electrotechnology
- Electricity Supply Industry - Generation
- Electricity Supply Industry -Transmission, Distribution and Rail
- Gas

We provide advice and expertise to industry and government bodies such as electrical regulatory bodies. Additionally, we oversee a suite of learning and assessment resources and accredited courses designed to provide quality and consistent outcomes for apprenticeship and post-trade training.

Our membership and board are made up of various industry bodies such as the National Electrical and Communications Association (NECA), Master Electricians Australia (MEA), the Electrical Trades Union of Australia (ETU) and the Australian Services Union (ASU). Our highly experienced board members provide ESA with the necessary direction, governance and oversight needed to ensure we are well placed to represent the views of industry.

ESA has established strong working relationships with key industry stakeholders, Governments, the Vocational Education and Training (VET) sector and regulatory authorities within Australia and internationally.

Critically, it is these relationships and deep connection to industry that allows us to support employers and workers as they grapple with the current workforce challenges across the growing clean economy.

We welcome the opportunity to contribute to the review the Building the Women's Career Program consultation led by the Department of Employment and Workplace Relations (DEWR) and look forward to further engagement should the DEWR require.

## Overview

The Electrotechnology sector has been in a state of skill shortage and high demand for over two decades and is undergoing significant change as it evolves through technological advancements, the increased uptake of renewable energy and electrification of homes and business. The Powering Australia Plan<sup>1</sup> details Australia's commitment to meet emission reduction targets of 43% by 2030 and net zero by 2050, which will further exacerbate the problem. Trade-based technical positions, including electrical, utilities and plumbing occupations, will be the most in need and vital in achieving Australia's emissions reduction targets.

According to the recent *Workforce Plan 2024 The New Power Generation: Challenges and Opportunities Within Australia's Energy Sector*<sup>2</sup> produced by the Energy Jobs and Skills Council Powering Skills Australia (PSO), the energy workforce has the lowest representation of women (16.5%) out of all the 10 industry sectors. That percentage declines further when defined to women in energy tradesperson roles, at only 2.3%. Increasing female participation in the electrotechnology sector is crucial to addressing these skills shortages and achieving our workforce infrastructure goals to meet our net-zero targets.

Electricians are the largest occupational category nationally within the Electrotechnology sector. Data from Nowcast of Employment By Region and Occupation (NERO) reports that there is 195,954 Electricians in Australia which a predicted future growth of 3% in 1 year and a huge increase to 25% in 5 years<sup>3</sup>. In October 2023 the Australia Government produced *The Clean Energy Generation Report*<sup>4</sup> and based on preliminary modelling Australia will likely need an extra 32,000 more electricians in the next seven years and an additional 85,000 more by 2050. However, with the Federal Government's recent commitments to establishing Australia as a renewable energy superpower, the projected demand for electricians has significantly increased. The Supplementary Modelling Report of the Clean Energy Generation Report indicate the initial estimate has now risen to 42,500 additional electricians needed by 2030 and nearly 100,000 more by 2050.<sup>5</sup> The Clean Energy Generation Report identifies electricians as a critical occupation, in the transition to renewables.

We need to change the perception that the electrical industry is not suitable for women. Addressing the gender imbalance and fostering a more inclusive culture within this traditionally male-dominated field is critical for its growth, innovation, and ability to meet our future workforce needs and targets.

It's essential to provide the right support and assistance to address these disparities and meet the growing demand for skilled labor in the Electrotechnology sector.

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<sup>1</sup> <https://www.dcceew.gov.au/energy/strategies-and-frameworks/powering-australia>

<sup>2</sup> [https://poweringskills.com.au/wp-content/uploads/2024/07/Workforce\\_Plan\\_Report\\_2024\\_Final\\_15July2024.pdf](https://poweringskills.com.au/wp-content/uploads/2024/07/Workforce_Plan_Report_2024_Final_15July2024.pdf)

<sup>3</sup> <https://www.jobsandskills.gov.au/data/nero/nero-dashboard>

<sup>4</sup> <https://www.jobsandskills.gov.au/publications/the-clean-energy-generation>

<sup>5</sup> <https://www.jobsandskills.gov.au/download/19313/clean-energy-generation/2384/supplementary-report/pdf>

# Opportunities for Structural and Cultural Change

## **What are the change opportunities within your industry / sector that align with the fundamental elements of the Building Women’s Careers Program?**

The creation of more gender equitable workplaces and training options in male dominated sectors will be critical to attracting, retaining and empowering women to thrive and remain in traditionally male occupations.

Change is needed around structural issues such as a culture of long and inflexible hours as well as insufficient work-life balance, inadequate gendered amenities and PPE. Addressing and changing the hypermasculine workplace cultures so that women stay in the occupation and consider trades as a viable career path.

Complemented by increased promotion of trade related skills and career pathways to young girls will be essential to achieving increased female participation.

The Electrotechnology industry has made considerable and positive efforts to address and improve female participation over the years, pleasingly the culture is changing, and progress is being made, but there is still a lot more to be done.

Feedback gathered through PSO’s *Energy Pathway Roadshow*<sup>6</sup> indicated that inflexible working arrangements for family formation, including limited access to childcare, flexible work hours, and part-time work or apprenticeship options, were significant challenges for women’s participation, particularly in regional areas. Additionally, the lack of amenities that are inclusive of women serves as a significant deterrent. Many of these barriers are not unique to the electrotechnology sector but are systemic across many trade sectors. These issues are well-known and have been long-standing challenges. Combined, they significantly constrain the future supply of workers, and if left unaddressed, will likely prevent supply from meeting demand.

To address these challenges more engagement with training providers and employers to provide opportunities for women to reskill or upskill will need to consider a more flexible work-life balance. Access to childcare facilities, that open early in the morning and late in the evening to accommodate various work schedules. This would require the federal government to invest in industry-specific childcare facilities which no commitment has been made.

Employers need to be empowered and informed to invest in their businesses and train the increase apprentices numbers. An industry – led awareness initiative to increase the number of women entering the electrical trades could indeed be highly beneficial for both employers and the industry as a whole.

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<sup>6</sup> [https://poweringskills.com.au/wp-content/uploads/2024/07/WFP24\\_C\\_Energy-Pathway-Roadshow\\_Final.pdf](https://poweringskills.com.au/wp-content/uploads/2024/07/WFP24_C_Energy-Pathway-Roadshow_Final.pdf)

- Identify and feature industry role-models who have successfully recruited and retained female apprentices.
- Produce case studies and video interviews showcasing their strategies and the positive outcomes for their businesses.

Through an initiative like this the knowledge and experience of these employers could amplify program outcomes and support structural and cultural change across organisations and industries and beyond the end of the program as highlighted by fundamental element 5 of the Building Women’s Careers Program.

Another program that could alleviate barriers is occupational-specific support and mentoring. All apprentices and trainees, including women and other underrepresented groups, need support and mentoring from those within their occupation or industry. Occupational specificity is particularly important in sectors undergoing rapid changes, such as the transition to renewable energy.

Investing in industry-led programs such as mentoring and ongoing support are critical components in ensuring that women electrical apprentices remain committed to and successfully complete their training. Effective mentoring and support systems can significantly improve completion rates, addressing one of the primary challenges faced by the electrotechnology sector.

There are many examples of successful programs and partnerships that have been implemented over the years to increase participation from underrepresented groups, specifically women, in the electrical sector, including:

- The WAVE (2021-2022): The Women in Apprenticeship Program (WAVE) aimed to increase the number of women entering electrical trades and to support them as they transition from an electrical pre-apprenticeship to employment in the electrical industry. WAVE successfully saw the recruitment of 30 women into electrical apprenticeships.
- Supporting Women to Succeed in Tasmania (2021): Provided support to employers in recruiting trade-ready women into traditional trades and creating healthy, inclusive work cultures. It focuses on providing women who are interested in entering a trade with the tools and support to become trade-ready, as well as training, mentoring resources, and support for workplace supervisors to become champions of change in the workforce.

All these models share common characteristics, which include:

- Targeted programs
- Long-term approach
- Industry-led initiatives
- Industry-led mentors and support

# Project Partnerships

## **How could project partnerships operate within your industry / sector to achieve the objectives of the Building Women’s Careers Program?**

Energy Skills Australia supports the Building Women’s Careers Program fundamental element 2 emphasising the importance of strong and collaborative partnerships.

These partnerships should encompass industry, peak bodies, very large employers, unions, community organisations and women’s services, and training providers. Such collaborations provide a broader reach and greater influence, amplifying outcomes and driving structural and cultural change within target industries and sectors. By leveraging shared leadership, expertise, networks, ideas, and values, partnerships can effectively promote and support women's careers in the electrotechnology sector.

In the electrotechnology sector, fostering robust partnerships requires the involvement of industry, peak bodies, unions, Registered Training Organisations (RTOs), and government (both state and federal). This holistic approach is crucial for collectively influencing the ecosystem that supports women entering the workforce. A notable example of industry collaboration is *the Joint Industry submission See & Be for the National Strategy to Achieve Gender Equality*<sup>7</sup>, demonstrating the sector's commitment to advocating for change.

For project partnerships to be effective, several requirements need to be established. Firstly, a clear governance structure with defined roles and responsibilities for each partner is essential. This ensures accountability and efficient coordination. Appointing leaders with proven track records in driving industry change and fostering inclusive environments is also crucial. These leaders should possess in-depth knowledge of the electrical industry and its specific challenges.

The size of the partnership should be balanced—large enough to leverage diverse perspectives but small enough to ensure effective communication and decision-making. Maintaining a collaborative environment where partners work together towards common goals is vital for success. This involves fostering an atmosphere of mutual respect and shared objectives.

Despite the benefits, several challenges exist in creating and operating project partnerships. These include aligning the different goals and priorities of various partners, managing communication and coordination among a diverse group, and ensuring sustained commitment and resource allocation from all parties. Addressing these challenges requires strong leadership, clear communication and roles, and a commitment to the shared vision of advancing women's careers in the electrotechnology sector.

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<sup>7</sup><https://www.neca.asn.au/sites/default/files/Industry%20Submission%20-%20National%20Strategy%20to%20Achieve%20Gender%20Equality%202023.pdf>

## VET Pathways

### **What are some of the ways vocational education and training (VET) could be integrated into Building Women's Careers Program projects?**

As highlighted in our overview, electrotechnology is facing a skills shortage. The Clean Energy Generation Report identifies electricians as a critical occupation in the transition to renewables. However, with current completion rates on a downward trajectory, we won't meet the demands required to achieve our nationwide net-zero goal by 2050. According to the Jobs and Skills Australia Skills Priority List, the occupation of electricians is currently facing a shortage and has been for many years.

Traditionally, the VET pathway for the electrotechnology industry is through an apprenticeship with a nominal duration of four years. Most commonly, apprentices will embark on a Certificate III pathway, gaining both practical and theoretical knowledge during their apprenticeships, and then continue to specialised streams or post-trade qualifications. The industry also offers Certificate II pathways, which are more commonly utilised in secondary schools if available.

VET pathways we would like to see supported through the program lead to an occupational outcome.

These qualifications are:

- UEE30820 Certificate III in Electrotechnology Electrician
- UEE32220 Certificate III in Air Conditioning and Refrigeration
- UET30521 Certificate III in ESI - Transmission Overhead
- UET30621 Certificate III in ESI - Distribution Overhead
- UET30821 Certificate III in ESI - Distribution Underground

To make Vocational Education and Training (VET) in the electrical industry more accessible for women, it needs to be delivered with a focus on inclusivity and support. Firstly, flexible training schedules, including industry education and acceptance of part-time apprenticeships, can accommodate women who may have family or other commitments. Additionally, providing on-site childcare facilities or partnerships with local childcare centers can alleviate one of the significant barriers for women entering the industry.

Furthermore, creating mentorship programs that connect female apprentices with experienced female tradespeople and role models in the field can provide guidance and support. It is also essential to foster a learning environment that actively combats gender biases and stereotypes, promoting a culture of respect and equality. Offering financial incentives specifically for women can also encourage more female participation.

Lastly, ensuring that training facilities and equipment are accessible and designed with women in mind, such as appropriately sized tools, uniforms and safety gear, can make the learning experience more comfortable and effective. Addressing these aspects, VET in the electrical industry can become more welcoming



## Sustaining Positive Change and Lessons Learned

### **How can we ensure the lessons learned from Building Women’s Careers Program projects are shared, amplified, and continue to be used over time and after the program finishes?**

To ensure lessons learned from the Building Women’s Careers Programs are shared, amplified, and utilised over time, it is crucial to embed ongoing policies and support for this and similar initiatives. Often, successful projects remain pilot programs, leading to short-lived success. By Institutionalising policies and creating support structures, we can extend the impact beyond the program’s lifespan and ensure continuous progress.

Project partnerships can support long-term outcomes by focusing on cultural and systemic change. This requires designing initiatives that address root causes and promote sustainable practices. By fostering a commitment to diversity and partnerships inclusion within the electrotechnology industry, these partnerships can drive lasting change. Ensuring stakeholder partnerships, buy-in and ownership is vital leading to continued support and implementing the lesson learned.

Sharing and discussing outcomes and lessons learned across all the Building Women’s Careers Programs projects with stakeholders is essential. Establishing a centralised knowledge repository such as an online platform can facilitate this. This platform could host each project’s case studies, best practice and outcomes combined with industry conferences webinars, publications can amplify the programs success. This would be driven with all project stakeholders to utilise their industry reach.

While significant progress has already been made in promoting women’s careers in the electrical trades, there still more to be done. The Building Women’s Careers Program is a great way to continue driving the necessary changes focusing on systemic and holistic change and actively sharing knowledge, we can ensure that the impact of these project endures and continues to benefit the industry.

## Program Risks and Opportunities

### **What do you see as the key risks and opportunities to the success of the Building Women’s Careers Program? How could we respond to these?**

The Building Women’s Careers Program faces several key risks that could impede its long-term success. One significant risk is the possibility of the program not continuing beyond its initial term. Often, even successful projects fail to secure sustained support, resulting in short-lived impacts. To mitigate this risk, it is crucial to integrate the program’s objectives into long-term industry and government policies. Ensuring that the program’s goals are aligned with broader policy frameworks will help secure ongoing commitment and funding.

Another major risk is the potential for changes in government policy and focus. Shifts in political priorities can disrupt the continuity and effectiveness of such initiatives. By demonstrating the program's value and aligning it with broader economic and social goals, we can create a more stable and supportive environment for its continuation.

Lack of ongoing funding poses another significant risk. Without adequate financial resources, it is challenging to sustain the initiatives that drive cultural and systemic change. Advocating for long-term funding commitments from both government and industry stakeholders is crucial.

Despite these risks, there are substantial opportunities inherent in the Building Women's Careers Program. One of the most significant opportunities is the potential for systemic change. By promoting diversity and inclusion in the electrotechnology sector, the program can help shift cultural perceptions and create a more inclusive industry environment. This cultural shift can encourage more women to view the electrical trades as a viable and rewarding career path, increasing female participation in the sector.

The Building Women's Careers Program provides an opportunity to set a precedent for other programs in different workforces. By demonstrating the benefits of a diverse workforce and showcasing successful strategies for recruiting and retaining women, the program can inspire similar initiatives across different sectors. This broader impact can contribute to a more inclusive workforce overall, benefiting the economy and society.

## Summary

The Electrotechnology and Electricity Supply Industries are pivotal to the renewable energy and infrastructure development initiatives of the federal government, encompassing both public and private sector projects.

Through strategic planning, advocacy, and stakeholder engagement, the opportunities for a systematic change and increase female participation in the electrotechnology sector highlights the programs potential to drive long-lasting, positive change. This approach is essential to meet our workforce needs as we transition to a more cleaner economy.

We welcome further discussion should you require. The contact for this submission is detailed below.

# Contact

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