

Powering Women into Clean Energy Apprenticeships GIA Report



2026



Acknowledgement

Tradeswomen Australia acknowledges Aboriginal and Torres Strait Islander peoples as the First People and Traditional Custodians of the lands on which we live and work. We pay our respects to Elders past, present and emerging. We honour the strength, knowledge and leadership of First Nations women, and recognise the intersections of culture and gender that continue to shape experiences in our communities and workplaces.

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Executive summary

Women remain unrepresented within Australia's electrical trades despite advances in the overall percentage of representation within the last 10 years. While the causes are multifaceted, a cursory review of the literature suggests these causes can be summarised as follows:

- a) Persistent rigid gender norms within the electrical sector
- b) Lack of information about pathways and the resulting career opportunities
- c) Systemic issues relating to advertising of vacancies and recruitment processes
- d) Toxic workplace cultures
- e) A lack of sector wide engagement to improve the material conditions women work in

The causes of female under representation in the electrical sector are well known and established by a substantive body of academic and non-academic research. **It is therefore important for projects such as this to reframe the narrative around low female participation not as a question of *why* this is happening but rather a *call to action* to make substantive improvements on the well-established barriers that women face.**

The initial phase of the project saw qualitative interviews carried out with multiple stakeholders including a number of women working in the sector – apprentices and certified electricians. The analysis of the data supports the findings of the rapid literature review and adds further evidence to the causal links between low female participation in the electrical trades and women's overall negative experiences in the electrical sector.

One unexpected finding is the persistent issue of access to facilities. Women reported little to no access to appropriate bathroom and changing facilities. This structural form of discrimination was further compounded by the high rates of gender-based violence and gender discrimination experienced by women in the sector.

Despite this project commencing at a time where major changes in the legal frameworks surrounding work, such as the Positive Duty requirements and psychosocial safety at work regulations had recently been introduced, stakeholders who took part in the interviews were not confident in the level of understanding or preparedness of small to medium enterprises (SMEs) around these issues. More broadly, stakeholders revealed a landscape that was heavily impacted by an economic downturn and changes in supervision arrangements for apprentices.

Powering Women

into Clean Energy Apprenticeships



The Powering Women into Clean Energy Apprenticeships project

The project, led by Future Energy Skills, brings together key organisations across the clean energy and electrotechnology apprenticeship and training sector to address skills shortages by increasing women's participation in the electrical industry.

As one of 20 federally funded projects through the Building Women's Careers program, the aim is to advance structural and cultural workforce change and improve women's access to flexible, safe and inclusive training and work opportunities in male-dominated trades.

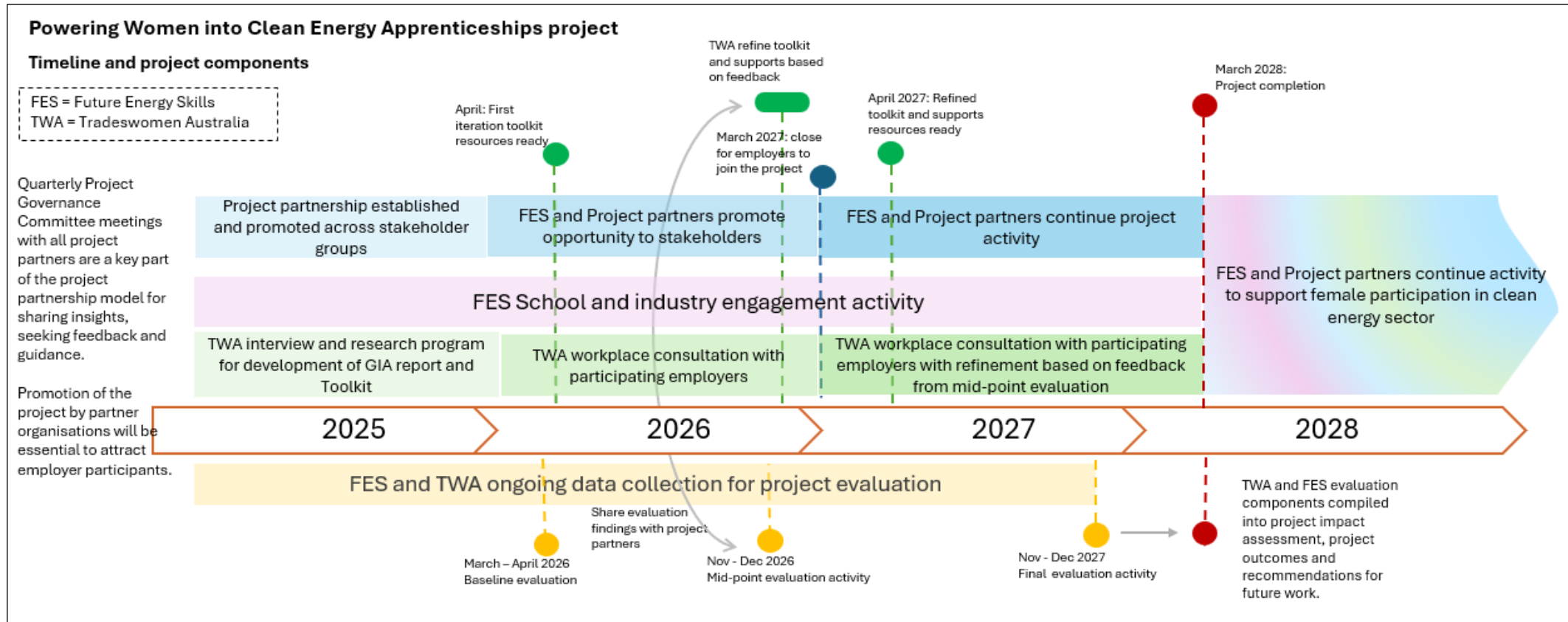
The project activity is based in Victoria and Tasmania and has three main components:

1. Applied research and a gender impact report (this report) on the structural and cultural barriers preventing women from entering and completing electrical apprenticeships with the development of a Toolkit of policies and resources to support participant employers make their workplace safer and more inclusive.
2. Work with participant employers and their apprentices to implement Toolkit policies and resources and evaluate the effectiveness of the resources and support provided.
3. Promote women in electrical trades, and safe and inclusive training and employment practices through school, community and industry engagement.

Iterative evaluation of the project components and the partnership model will inform the development of a final Toolkit and approach that will be scalable across the electrotechnology sector.

Project partners: Tradeswomen Australia, NECA – Victorian Branch, NECA Education and Careers, The Busy Group, MAS National, MEGT (Australia), Bendigo Kangan Institute and TASTAFE.





Rapid literature review

Introduction

Despite growth in the total number of women who work in the electrical sector, overall representation remains overwhelmingly low (Dawson et al., 2025). Participation rates hover at 1-3% and have remained there for the last couple of years (see Australian Bureau of Statistics, 2025a; Australian Bureau of Statistics, 2025b). Women's participation in male-dominated trades has been an issue that, for some time now, has garnered interest from the public sector, government, and the broader public. In a landscape that has been defined by post-Covid recovery, a housing and cost of living crisis, and the rapid rise of large language models (AI) replacing jobs it continues to feel pertinent to explore the issue. However, an important distinction must be made. Continuing to explore the problem – and the impetus to design solutions – must not be confused with a belief that the problem remains *unknowable*.

There is a vast knowledge base available to anyone who wants to delve into this topic. Academics and sector experts have produced a comprehensive body of knowledge that clearly outlines the barriers and opportunities. Government agencies have created resources, toolkits, and a myriad of programs to address the well-known causes of such low female participation in male-dominated trades. This literature review presents a rapid review of sources, both academic and non-academic, to provide a generalist picture of the state of affairs. Given the limited number of electrical trade specific research, this review broadened its scope to women in male-dominated trades in the Australian context.

The focus on barriers and retention, while an artificial divide, relate to the ultimate outcomes of the project this review is tied to. The literature review informed the thematic analysis of the interviews carried out in the second half of 2025 and aided in the design of the tools created for this project. Where other more comprehensive resources are available, they will be indicated in footnotes as additional reading.

Entry into male-dominated trades

The barriers for women begin well before they have even had a chance to consider whether they want to join the electrical sector, after all, the apprenticeship system was created *for men by men* (Gessler, 2019; Giazitzoglu, 2025; McMahon, 2025). Bridges et al. (2020) conducted a systematic literature review exploring women's recruitment and retention in the skilled trades. Their findings suggest there is little theoretical engagement with notions of masculinity and masculine culture and how these perpetuate the barriers that all women experience. Bridges et al. (2020) concluded that one of the most impactful barriers for women were informal and unregulated employment practices. In a sector that relies primarily on a word-of-mouth approach to hiring, women who do not have a male relative that can connect them with an employer, struggle to get an apprenticeship.

A recent strategic review of the Australian Apprenticeship Incentive System published by the Department of Employment and Workplace Relations (DEWR) (2024) confirmed that women, First Nations apprentices, culturally and linguistically diverse apprentices, and apprentices with a disability experience more pronounced issues in male-dominated trades. School aged girls are not encouraged to consider a trade as a viable career path or are actively discouraged by parents and peers (Bridges et al., 2024). It would be easy to dismiss this as gender bias in action, but when we consider the structural and material conditions women work in, parental reluctance can seem less biased and more evidence based. Providing support and information to parents is key to ensuring that school aged girls are provided with the chance to consider a career in the electrical trades. Such support coupled with active school engagement with the electrical sector to attract new talent is the key to ensuring a sustainable workforce into the future.

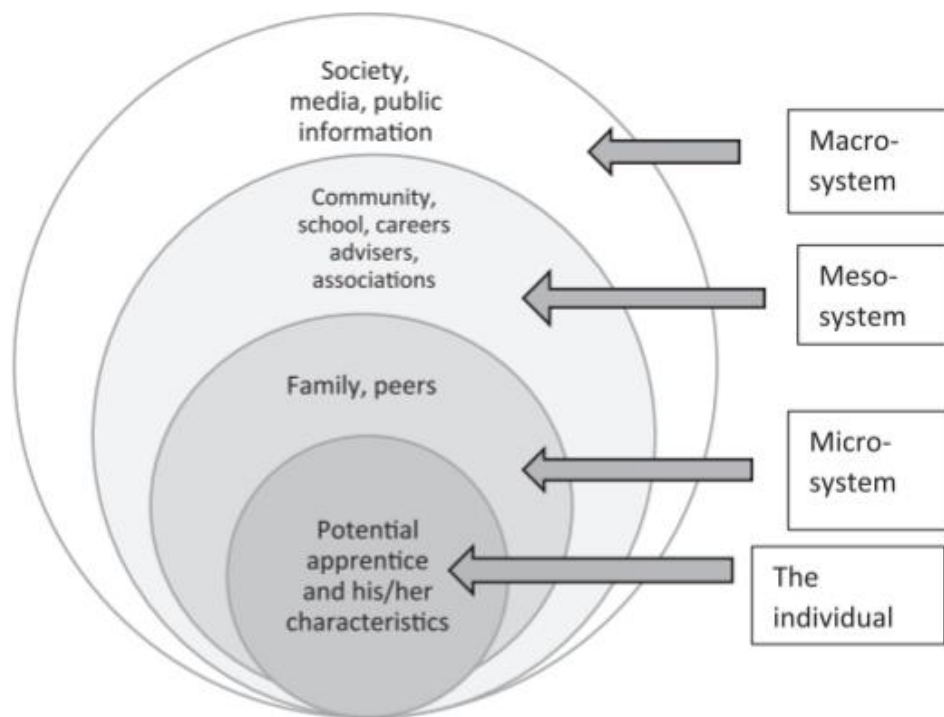


Figure 1 - Levels of influence affecting an individual's decision to undertake an apprenticeship (Smith, 2023, p. 34)

Smith (2023, adapted from Bronfenbrenner 1979), proposed the above model to better understand the forces that influence potential apprentice candidates (*Figure 1*). While the model lacks an explicit gender sphere, if we understand rigid gender norms as being woven into and operationalised at all levels, this figure is a useful visualisation of the barriers that a female apprentice will have to overcome even before securing an apprenticeship. Once young girls or women enter the workplace they face toxic workplace cultures, discriminatory hiring practices (DEWR, 2024), lower wages (Baker et al., 2024), and higher rates of gender-based violence. Results from a 2022 survey commissioned by the Electrical Trades Union (ETU) revealed that the

most cited reason for leaving an apprenticeship, regardless of gender, was wages followed by work culture (Electrical Trade Union & Essential Media, 2022).¹

According to DEWR (2024, p. 215) “the key barriers to the participation of women apprentices in male-dominated trades were gender expectations, cultural norms and misconceptions about women’s capabilities to perform in these roles”. Baker et al. (2021, p. 7) investigated the effectiveness of gender equality and diversity initiatives (GEDIs) in project-based organisations and found that “despite legislative and industry influence in the offering of various GEDIs, leaders also select GEDIs based on their personal views of justice, and their individual biases... [and] there was no tracking or auditing in any organisation of the performance or outcomes of the GEDIs selected to address equality and diversity”. Even a cursory read of the literature suggests that diversity and inclusion initiatives that lack the proper theoretical underpinnings and have no clear structure to quantify and measure meaningful change have little impact on improving outcomes for women.²

Retention

A common theme that emerges in the literature on women in male-dominated trade spaces is the impact of toxic workplace cultures. A recent report from NAWIC (2024) revealed that 88% of respondents experience microaggressions in their day-to-day. The most common type of microaggressions were verbal and 41% of aggressors are supervisors or managers (NAWIC & TDC Global, 2024). Microaggressions were defined as small acts that make you feel less welcome, less valued or less safe that should be understood as having a disproportionate cumulative effect on those who experience them. The report also noted that those who had been in the industry for 15+ years were just as likely to experience microaggressions as those who had been in it for less than two.

The material conditions that women operate under continue to make certain aspects of work inaccessible. Choy and Edwards-Groves (2024, p. 15) argue that ‘gender-inclusive policies which are non-discriminating and offer equal access to VET need revitalising’. This mean access to targeted funding for scholarships, mentoring, childcare, flexible schedules, as well as support networks that extend into the workforce with the participation of industry partners. Baker et al. (2024) note that working conditions are clearly a factor that influences women’s length of stay in the sector.

Recently published research on humour in the workplace reveals that women experience humour that is sexist and/or sexual as having a negative impact on their mental and physical health and can lead women to avoid certain work situations (Lingard et al., 2026). Perhaps more

¹ For a further analysis on apprentice and trainee completion rates see <https://www.ncver.edu.au/research-and-statistics/publications/all-publications/apprentice-and-trainee-outcomes-2024e> and [trainee outcomes 2024](#)

² For an in-depth discussion on gender, VET, and policy see Smith, E. (2025). How women are disadvantaged in the Australian apprenticeship system. *The Economic and Labour Relations Review*, 1-23. <https://doi.org/10.1017/elr.2025.10033>

alarming is the finding that over one-third do not report their experiences. The experiences identified by participants ranged from displays of pornographic photos/drawings, receiving unwanted sexual material via messages, unwanted sexual advances, unwanted touching, unwelcome sexual jokes, sexualised comments about their bodies or clothes, and hearing sexualised comments about women in general (Lingard et al., 2026, p. 6).

It is worth considering how an environment characterised by such sexualised exchanges will interact with the psychosocial safety at work legislation that is now active nationwide.³ Bridges et al. (2024) note that the women in their study normalised gender based harassment, something noted by multiple other authors, as a way to fit in and minimise any negative impact that may come from speaking up. Bridges et al. (2020) had also found that the support provided for women in male-dominated trades was uncoordinated across industry stakeholders. Turner et al. (2021) found that women in male-dominated trades had high levels of resilience despite little to no support from their workplace. The authors further suggested that resilience development be included in apprentice programs to support retention and career success for women. This report notes that resilience should be understood as a set of protective skills that allow the individual, and in this case women, to exercise autonomy and independence in the face of situations that are harmful. Resilience should not be conceptualised as the ability to tolerate, simply for the sake of retention, situations that are harmful.

In a departure from the norm, Bridges et al. (2022, p. 371) looked at the factors that contributed to women's success in male-dominated occupations with a focus on social and cultural capital. The authors described women's success as "most likely to be singularly occurring, unpredictable and difficult to replicate." Their study found that preexisting social capital was positively linked with finding a position in skilled trades. Findings such as this further reinforce the question of what happens when women do not have the benefit of such networks.

NCVER provides regular updates on the number of apprentices who begin and complete their apprenticeship over the course of a year. The latest release indicates that women who entered the electrical trades (code 3232 Electrical Services) had an attrition rate of 16.6% and that they did so within 162 days of commencement.⁴ McKenzie and Dawson (2024, pp. 15-17) note that there are key drivers to poor retention for all apprentices, namely economic strain due to low wages and cost of living, negative workplace culture, and lack of support. The authors also note that bullying and negative workplace cultures are *more impactful* for women. Overall, the research conducted within male-dominated trades paints a picture that is characterised by

³ For further information see <https://www.safeworkaustralia.gov.au/safety-topic/managing-health-and-safety/mental-health/psychosocial-hazards>

⁴ NCVER 2025, Apprentices and trainees: December quarter 2024 - apprenticeship-level completion rates DataBuilder. Note the rate/duration is based on a low number of records or where a high number of apprenticeships are still in progress and therefore should be treated with caution. For recent data on apprentice and trainee outcomes visit <https://www.ncver.edu.au/research-and-statistics/publications/all-publications/apprentice-and-trainee-outcomes-2025>

rampant and explicit sexism and sexualised behaviour that targets women; little to no support from organisations; and success stories that are more exception than the rule.

Conclusion

Despite the limited scope of this review, the literature presents a clear picture of women's experiences when trying to enter and remain in male-dominated trades that can be overlaid onto the electrical trades. Overall, and despite some improvements, the picture is not a positive one. Individual experiences of women succeeding in the sector can obscure the reality that for most women, apprenticeships and employment in the electrical sector is rife with gender-based harassment and a sense of isolation and lack of belonging. Post the legislative changes, there is also the looming question of what the landscape will look like in 5 years' time when psychosocial safety regulations have had a chance to be tested properly.

This is not the end of the story though; clear and simple actions can be taken that make a difference at the individual and systemic level. This review agrees with the recommendations put forward by the ETU and the Centre for New Industry in their *Charged Up* report (McKenzie & Dawson, 2024). Namely recommendations

1. That the Federal Government implement labour conditionality in all forms of public investment and government funded support to deliver the workforce and social licence needed to drive the energy transition. And
3. That the Federal Government invest in industry-led apprentice mentoring and support programs.

Similarly, DEWR (2024, p. 102) suggests that “industry bodies, unions and group training organisations work together to attract more women into male-dominated trades through pre-apprenticeships and ‘try a trade’ programs, and to support successful completions... by working with their employers to establish safe workplaces and provide industry-specific mentoring”.

The above recommendations are based on more than three decades of extensive research. This review further confirms the already existing knowledge base and wishes to amplify the call for action from all levels. Transformative change does not happen without government support and industry buy-in, yet, in the face of a skills shortage and further pressures from the rapidly accelerating incursion of AI into the general labour market, no coordinated efforts are currently in place to further women's *influence* in male-dominated trades.

McKenzie and Dawson (2024, p. 12) present an appropriate summary of why it is critical to bring women into organisations when they noted that a critical mass of women at all levels has been linked to higher customer satisfaction, greater productivity, and higher profitability. They also note that women bring with them ways of working that have the potential to transform the workplace. Ensuring that women who enter the electrical trades have healthy, fulfilling, and meaningful careers is everyone's business.

GIA interview findings

The interview period went from June to November 2025. There was a total of 52 participants, of those, fifteen were female apprentices, the remaining 37 participants were key stakeholders working in the electrical/clean energy sector or in TAFE training and education. There were 27 interviewees from Victoria and 10 interviewees from Tasmania. A limitation of this project was the lack of demographic data collected. Interviewees were not asked to provide any demographic details. If a similar project was to be carried out again a simple recommendation would be to include the collection of demographic details in the project design.

All interviews were conducted online, had an average duration of 60 minutes, and all participants were provided with a copy of their transcript for review to ensure ongoing consent. There were no withdrawals from the project. Participants were asked for permission to use quotes seen in this report and pseudonyms are used to ensure privacy.

Otter AI⁵ was used to generate transcripts; however, no AI functionality was used in the analysis. All interview transcripts were analysed using a reflexive thematic approach (Byrne, 2022). The analysis was carried out using the open access qualitative research software Taguette.⁶ The main emerging themes are described as themes and the identified sections in the interview were coded or highlighted to those themes.

In presenting these themes, the reader will notice there is some overlap. Women who enter male-dominated trade sectors experience multiple and overlapping issues that compound their experiences. Given the hours that women spend at work and the systemic issues present in the sector the thematic distinctions are somewhat artificial and created for a sense of clarity. The themes are not meant to be understood as isolated problems that can be fixed with isolated initiatives. Rather, these findings speak to the global nature of the challenges women experience in the electrical sector and to the need for intersectional approaches to improve the participation and retention of women in the electrical and clean energy sector.

Persistent rigid gender norms

Throughout the interviews, participants described views about women and men in stereotypical ways. These rigid gender norms permeate every part of the journey of a female apprentice. From the first time they tell someone at school they may be interested in a trade, through to their apprentice placement options, and beyond into their professional life.

Not from my employer, but from the wider people I have to interact with absolutely. I will be sent as the subject matter expert, along with my client because they don't know the answer, and we'll go and see a new host site or similar, and the person who made the meeting with me and brought me there won't talk to me. They will talk to the men and even though the questions are for me, they just won't look at me. It's like, I'm not there, even though I'm the one answering the question. Like they'll ask the client the

⁵ See <https://otter.ai/>

⁶ See <https://www.taguette.org/>

question, and the client will ask me. And at this point, the client doesn't even understand what's happening till I tell them afterwards, and I'm like, 'oh, look, another one'. – **Ivy, Manager of Operations**

Notions of women being naturally more risk averse, physically weaker, uninterested in dirty work, or generally prone to offence – to name a few – were conveyed through most of the interviews. These descriptions of women were not understood to be socio-cultural constructions of gender, and therefore gendered behaviour, rather they were frequently presented as facts that required no further inquiry.

*It's interesting. I was at a workshop and at the end the women attending were saying, 'oh, you know, this woman would be really good' and one of the men spoke up and said 'she wouldn't be able to lift a cross arm'. And it's like, you don't expect a man to lift one by themselves. 'Oh, no, no, but...'. It's still, it's still there. It's an interesting space, and I think it's going to take time changing that culture, but it's starting those conversations around just because a man can do it that way, doesn't mean it's the right way. – **Lily, Workforce Development Specialist***

Gendered assumptions, or gender bias, then flowed into all other aspects of the apprentice journey. From parents who were not comfortable with their daughters doing 'men's work', to schools not providing the appropriate level of support for girls to enter the trade, to persistent discrimination in the hiring process of apprentices.

*Yeah, I think on that point, or at least in my experience, employers like that are not single-issue chauvinist. If they're against women in their trades they'll be against gay people as well. They'll be against trans people too. They'll be against non-white people as well. So, it's not just changing that specific sexist culture. It's changing the entire, if you even can, changing entire world views. – **Charles, Mentor***

The highly gendered nature of the trades permeated through to the men who work in the sector. Men not only concerned themselves with the women in the sector, sometimes they also explicitly wish to meet the gendered expectations placed on them by social norms relating to men and masculinity.

*I've had guys come to me and say, "I can lift 50 kilos. Why are we all limited to 20 kilo lifting for manual handling? Is it because we've got a girl on the team?" My response is simply "that is just the dumbest complaint to make as the person doing the lifting, because even if that was the truth, you should rejoice in the fact that I'm now not letting you pick up anything heavy, to look after you're back, now you get to work less What are you even really complaining about? – **Steven, Project Manager***

While it may be tempting to dismiss these notions as quaint ideas of a bygone era, it is important to remember that all systems are designed to ensure their continued existence by replicating forms of knowledge and ways of doing. The number of times rigid notions of gender or highly gendered descriptions of women came up in the interviews, coupled with the existing knowledge base, clearly indicate that this is not merely puffery but a symptom of deeply ingrained notions that have real world implications for women who enter and wish to remain in the electrical sector.

And when my daughter was four and went to kinder, she said to her teacher she wanted to be a garbage truck driver, because my husband works for a truck company in Victoria. She's been around trucks her whole life, and the teacher said no, you can't you're a girl... This teacher just told a four-year-old little girl she's not going to be a truck driver because she's a girl [...] Why are comments like that being made by educators? –

Lisa, Stakeholder

Barriers

Unsurprisingly, most interviewees had clear notions of the multiple and compounding barriers that women face when entering and remaining in the electrical trade. The 'Barrier' theme had 153 highlights and was the most coded theme on the theme list.

I suppose business owners having preconceived ideas of people is a big one. I suppose we exist and we survive and we get through life, and we have thoughts that are built up and conscious and unconscious biases that get us to where we are. But that's definitely a big one when talking with business owners if they haven't had an apprentice before, if they haven't had a female apprentice before, that's a conversation where, if you can get them to open up and you can just challenge every single little thing that's in their head in an effective way. Obviously, they need to buy into you doing that. But that challenging preconceived ideas. With disability employment services it was the same thing. With gender, with disability, even with people coming from different socio-economic backgrounds, people believing that some people are just not motivated to work. It's like, well, this person's motivated, they just need someone to let them in. - Raquel, Mentor

Below is a non-exhaustive list of the barriers that were identified by the interviewees:

- Lack of appropriate, clean, and safe facilities for women
- Lack of familial connections into the sector
- Lack of clear information on pathways into the electrical sector especially at the school level
- Lack of clarity relating to potential career pathways in the electrical sector
- Refusal and reluctance by male employers responsible for hiring to hire women
- Low pre apprenticeship training options for women
- Lack of flexible work arrangements
- Lack of support for parents and women with care responsibilities
- Perception that women are weak and that this will impact their ability to do work
- Perception that women are a 'waste of time and resources' given they will want to have children
- Quota systems that lack structure or ongoing support mechanisms
- Fear of repercussions when speaking up
- Lack of appropriate policies and procedures to support women
- Low levels of literacy concerning legal protections for women

This report acknowledges that each of those barriers could constitute entire sections on their own however, given the considerable knowledge base around barriers to entry and retention for women in male-dominated trades listing the findings here will suffice.

*Well, we don't want to be leaving people behind as well. Like, it's awful to think that there are people that aren't doing something that they really want to do because childcare is in the way, or they had a dud teacher who convinced them they weren't good enough. Like, that's all bad. – **Steven, Project Manager***

One unexpected finding from this project is the impact of lack of toilets on the experiences of female apprentices and women who work in the electrical sector. While the interview schedule was designed to prompt thinking around barriers more generally, the lack of toilets rapidly became a flashpoint for interviewees. Stories of no access to toilets, having to use petrol station bathrooms off-site, or on-site toilets that were too soiled to use were a common part of women's experiences when working. For female apprentices, having to walk to far or off-site toilets resulted in lost time and a sense that they were falling behind in their work. A restroom break that would normally be 10 minutes turned into a 30-minute block of time which could result in hours of lost work a day.

*Like, why [are there faeces] on the wall? How, what did you eat? That's not okay. And then whose job is it to clean the toilets? Because we were a subcontractor for a larger project, we don't know what part or what the builders agreed to, right? Or if that's even a thing in contracts? Other than just having bathroom facilities, so have they ticked the box and just been, well, I fulfilled my contractual obligations. I have a toilet, you know? – **Ivy, Manager of Operations***

The barriers described by interviewees are not just singular obstacles that can be navigated as part of the individual responsibility we all carry. These barriers are symptomatic of a sector that has not yet really considered what it means, materially, to have women working there. In that sense, gender-based discrimination has a clear material sphere in the electrical trade which forces women to contend with conditions that create a mental load that places women at a disadvantage compared to their male peers.

*The thought was around the employer education, around the nuances of being a woman in trade, and the small, cumulative challenges. I think that is a very big gap, and it comes from the fact that men don't have to think about the things we have to think about as women in industry. Added to not being able to have that uncomfortable conversation if apprentices don't want to be seen as a complainer. I do think something that would be very valuable and address some of those smaller, cumulative things like mistakes, and the relationship to mistakes is that awareness piece of employers understanding that there is a difference in the way that women think and experience a workplace. – **Charlotte, Mentor***

Because the electrical sector was built by men, for other men, the *ideal electrician* is male, able-bodied, and only participates in caring responsibilities when he wants to without the need to do most of the unpaid care labour, which is reserved for his stay-at-home wife. This *ideal electrician* is, of course, not real and not in line with the current social and financial climate. There are many

men who want to be present with their children and there are many households who cannot live off a single income yet none of the current structures of the electrical sector seem to have caught up with the reality of a modern-day workforce.

More broadly, interviewees noted there some barriers that impacted apprentices generally, regardless of their gender, that are worth noting.

- Economic downturn impacting the availability of jobs
- Delays with access to a TAFE placement
- Younger apprentices not having the required level of mobility
- Insufficient literacy and numeracy skills
- Changes in supervision arrangements in Victoria
- SMEs that lack time or appropriately trained staff to support apprentices

The barriers outlined in this section speak to structural and systemic issues that need to be addressed in a holistic manner. Attempting to work on a single issue will cause undue pressure elsewhere or will further disadvantage the women it is attempting to support.

Workplace culture

It is a well-established fact that workplace culture – or rather a hostile workplace culture – is the most common reason women leave the trades sector. The interviews in this project support these well-established findings. The ‘Workplace Culture’ theme had 140 highlights and was the third most coded theme in the interviews.

Overall, workplaces were not described as sites that fostered learning, skill share, or camaraderie for women. Workplaces were overwhelmingly sites that required women to enact high levels of hypervigilance, created a constant need to prove themselves, and where women distinctly lacked a sense of belonging.

*But I think like, having a lot of women on site is incredible for being like, even if the men talk shit, I'm still going to have women around to support me. And like, you know, showing that you can work, and you know you're good at your job and all of that. But that is always a thought, and that is my thought, and has been thoughts of other things that have happened as well. It's always the I already have to prove myself, and now this feels like it's setting me back even more. - **Amelia, Apprentice***

Female apprentices struggled to feel a sense of camaraderie with their male peers or more senior staff in the organisation. Women relied heavily on the presence of other women to build a sense of belonging, leaving those women who worked in entirely male crews with a heightened sense of isolation. One clear consequence of this was an increase in their level of vulnerability either perceived or actual.

Among interviewees there was a sense that while women bear the brunt of toxic workplace cultures, the negative impacts and aspects extended to everyone who works in the organisation.

Making explicit that toxic workplaces are bad for all staff is an important point that takes on a new dimension within psychosocial safety legislation.

*I think they treat each other horribly and they are used to being bastards to each other, to assert themselves, right? And when it's something else, you know, it's just poor, their interactions with each other, in trades, are really poor. But women are the ones that say, 'hey, that's not okay'. I think men have just been entrenched, you know, to be a way, and shaking that interaction, where it's not okay to say, 'hey, that's not okay'. They get made fun of by other men, and then it becomes a crowd thing and they'll say, 'oh, this one's soft'. I don't think the backlash is particularly around women. I think women are the ones going, 'no, you can't say that to me'. – **Ivy, Manager of Operations***

Women are subjected to constant questioning of their abilities making it difficult to learn and build a sense of confidence in their own skills. This sense of not having earned their place was internalised by female apprentices and extended into their professional careers post their apprenticeship.

*I think from talking to all the guys in my TAFE class, no one really paints a good picture of working in domestic men or women. And I just wonder, is it, is it even a battle worth fighting, getting women into those spaces when the men that are there aren't even enjoying it? I'm sure there's some great domestic employers, and hopefully you find those ones that are willing to do it. But I think, as far as getting women more widely accepted in domestic as a whole, I think it's going to be a much more long-term change, because I did meet some assholes in construction. – **Monica, Apprentice***

Gender-based harassment

All but one of the women who took part in the interviews, whether working in the sector or in an adjacent role such as TAFE, had stories of being directly subjected to harm or having witnessed harmful events. The themes 'Actual incidents of harm' and 'Gender based harassment' had eighty-five (85) highlights coded into them. The actual incidents of harm ranged from persistent daily unwanted attention to disclosures of harm that met the bar for reportable and/or criminal conduct.

*Say something? Yeah, look, I'd like to think that they would, but they're just, I guess it's such pack animals, pack mentality. They don't want to be the one that stands out and like, on the same thing I've seen, you know, men that have spoken up when things haven't been right, and then they've been ostracised heavily as well. So, I guess, while it'd be nice to think that people would speak up, sometimes it's, I guess, hard, because it can be pretty savage, I guess the repercussions for having a voice. So yeah, I'd like to think that they would, but I can also understand why they don't. – **Juniper, A Grade Electrician***

These findings are both alarming and well-established in the literature. The rates that women experience gender-based violence are not the only issue they have to deal with. Among participants who shared stories of harm there were also stories of being unable to seek support or redress, fear of retaliation, poor organisational responses after disclosures of harm, and direct impact on their professional career progression.

*I guess for me, like I still have the desire to be there. It's just the fact of it being disappointing and it being a realisation that this is still a boy's club, and it is disheartening. And even for me, I'm not involved with the story, but because I had that experience months ago it's kind of connected dots for me. I was going 'I will have to come forward and say something'. But then, because the first person that came forward is being ostracised a little bit that to me, I'm going, 'okay, this is gonna be this gonna affect my career? Is this gonna affect the way that people see me. Am I going to be the one that's running forward and telling everyone's secrets, and you can't trust her and getting ostracised?' – **Amelia, Apprentice***

The instances of harm disclosed in interviews can be described as persistent and unaddressed by the organisations where women work. The impact of these experiences extends into all areas of women's lives. Women described feelings of discomfort and fear, concern over further harm coming their way, concern over their future being jeopardised, long term negative mental health outcomes, stress and anxiety, impact on their learning, impacts on their personal life, and a general sense of hopelessness that things are not improving or changing.

*I had the worst two first two years like ever, but then it's like, oh, you know what? Bugger it. I'll just be like, I'll be able to be stronger for them and for like, the younger [women] that come through. Because I think about and it scares me to think of some of the stuff that some of these young women could experience, like, that's the biggest worry, because it's like, I wouldn't want that on my worst enemy, let alone some young 17 year old that just got out of school and has no idea what she wants to do. – **Daisy, Apprentice***

When female apprentices were interviewed, they were all asked how they imagined their future. All but one of the female apprentices interviewed were unable to imagine a future that was bright and positive. The real and present issues they were dealing with made it difficult to think about anything beyond the immediate here and now and how they were going to get through the next hurdle. Conversely, when male interviewee stakeholders were asked to describe a career in the electrical trades their future vision was aspirational and had a positive outlook.

*As an electrician, once you're qualified as such, it's so broad, you can just about do anything anywhere across the world with the qualifications from Victoria, you can stay as an electrician, you can go into project management, you can go progress to electrical inspector or engineer. You can go to travel over the world working as electrician, own your own business. Yeah, it's a golden ticket. – **Samuel, Manager***

DEI initiatives

In Victoria the State government has required organisations tendering for state contracts to comply with a colloquially termed 'diversity quota'. This has resulted in a handful of large companies increasing their female participation exponentially. While some of the female apprentices interviewed noted the positive impact of having more women on site, overall interviewees did not support affirmative employment requirements as a viable pathway for women's participation in the trade.

The reasons for this were varied, and some are similar to the issues identified in the barriers section, but some are worth making explicit. Interviewees believe DEI and quota systems do not work because there is no supporting infrastructure for women once they arrive in the organisation or are on site. Quotas have become a tick-a-box system for large employers to secure funding but there is no government oversight into the design or implementation of such measures.

Not early on, not for the first, let me be politically correct here, probably for the first 20 plus something years. We didn't really see many girls in the industry. They were like hen's teeth. You know what I mean? I'm just trying to think, the first real woman person that I actually came across as a tradesman working as an electrician, was when I come to a Tier 1 organisation and I met Sandra for the first time, which was nearly 10 years ago. She was working on the tools as an electrician back then. And yeah, she was the first time I really came across a female electrician, and then eventually I noticed that the companies in the industry were sort of like starting to employ a lot more women. But I just went to a stewards meeting last month and at the meeting, it was run by the union, they were saying the 4% female workforce number is all bullshit. He goes, we only reckon it's at about 1.5 or to 2% it's not really that, like someone has been saying it's higher to make it look better, but it's not actually there. You know what I mean? –

Edward, A Grade Electrician

Female apprentices are in a double bind situation where they are constantly reminded that they only got the job because of the quota which in turn makes it nearly impossible for them to feel like they are worthy of the role they have. The notion that women are only there because of their gender is a particularly difficult position for female apprentices to reconcile.

And I think even the whole, the old time old saying of, oh, you only got that because you're a girl. It cheapens your, you know, what you've worked for, because you've only got that because you're a woman, you know? So, yeah, all these little things that people say and do, those actions, it all just adds to that pressure to do better, be better, be perfect, yeah. –

Juniper, A Grade Electrician

In some cases, interviewees reported that quota systems are used as evidence that women are unskilled and only have jobs because companies are forced to hire them. This speaks to the disjointed nature of DEI initiatives to date. This also reinforces the fact that the high degree of economic competition within the sector, where agencies get paid per apprentice sign on or employers are competing for the same tender, does not foster collaborative approaches to solving the problems women – or any other minoritised group – may face.

Legislation

With the 2022 changes to the *Sex Discrimination Act 1984* (Cth)⁷ which brought in the positive duty requirement in workplaces and the adoption of psychosocial safety legislation⁸ the

⁷ For a detailed description of these changes see <https://humanrights.gov.au/resource-hub/by-resource-type/publications/sex-and-gender-rights/factsheets/factsheets-other-resources>

⁸ For further information on this see <https://www.safeworkaustralia.gov.au/safety-topic/managing-health-and-safety/mental-health/psychosocial-hazards>

legislative landscape that SMEs operate under has seen major changes. Notwithstanding these changes, interviewees were not confident that the SME space was ready or appropriately informed of these changes and the opportunities it could bring. There was also a sense that legislation is not enough to drive change.

I understand that laws can change, but just because the law changes doesn't mean that has change someone's mindset. – Willow, Apprentice

Perhaps, one distinct outcome of the recent changes in the Sex Discrimination Act relating to positive duty responsibilities and the mainstreaming of psychosocial safety at work is the framing. Constructing men's behaviour towards women at work as a source of trouble for men can be detrimental to women if there is no real exploration of why 'business as usual' is so harmful. Men are becoming more aware of the negative consequences of their behaviour at work without the deeper understanding of why their behaviour is harmful or the desire to reflect on the power and gender relations they recreate at work.

Basically, you got to watch what you say, because before, when there was no women around, you know how men banter and talk about stuff, you could say stuff freely and no one would get offended, or whatever. But now you've got to be mindful. If you're talking about things that you did on the weekend or whatever, you've got to be careful what you say, because someone like you know, a female might hear that and feel you know, intimidated or threatened, or she doesn't want to hear that. You know what I mean, which I understand. – Edward, A Grade Electrician

Descriptions such as the one in this quote were common among interviewees and beg the question of whether no one was ever offended at that type of behaviour or whether, prior to the explicit inclusion of women as trades people, no one dared speak up. There seems to be a sense that things have changed, and some are actively working towards improving their behaviour. However, there is no distinct grappling with the structural or systemic issues of such gendered ways of thinking.

While legislative changes present major opportunities for interventions, it would seem that the narratives associated with these interventions must ensure that a gendered understanding of systems remains central to the implementation. In other words, drivers for change cannot be limited to a punitive approach.

The role of men

Without a doubt all participants were conscious of the critical role men in the sector play in improving conditions for women. Without male allies there can be no change.

I think, to be honest, a lot of it rides on men. Because, from what I've worked out, men don't like being told what to do by women. So, if it's women, bash, bash, bash, bash, you know it, it just doesn't work. You know, it's an ego thing. It's a society thing. So, I do think it really does rely on men that want that diversity, want that inclusion being put in positions that people respect, you know, that other guys respect and it all brings it up. So, yeah, I think that's super important. And I think even I could definitely say that if it weren't for the odd man in each company that I'd been in accepting me and try and

champion me, I wouldn't have got as far as I've got, because I'd just be fighting against everybody, you know. So yeah, I think it, it hinges off men 100% which sucks, because you'd sort of like to think that, as a woman, you can drive your own future, but I just don't think it is like that. I think we need men on side, and we need men supporting us, and that's when things will change. – Juniper, A Grade Electrician

It was also clear that the way in which men in positions of leadership behave is critical to the modelling of subordinate's behaviour. When men in leadership behave in discriminatory ways they are clearly telling everyone else in the organisation that discriminatory behaviour is acceptable. Given the electrical sector works in very controlled and hierarchical structures the flow on effects of discriminatory behaviour was clear to interviewees.

I still think there are a large number of people, electricians included, male electricians that don't think about filtering what they're saying. But it was good to see there were other males who said no, even though you're saying this in a joking manner just because you say it in a joke doesn't make it right, and you can't say, oh, I don't mean to offend and then make the comment, there is no disclaimer. Don't say 'don't take this the wrong way'. Well, quite clearly. Don't say it. – Marina, Apprentice Connect Australia Employee

There is a certain tension between the role that men play, the legislative changes, and the rigid gender norms that permeate the sector.

Employers are worried that they're going to be pulled up for inappropriate language and those sorts of things. We had a comment from an employer that said, you know, I've got to go home and deal with my wife at home. I don't want to be dealing with a woman on the work site, right? – Claire, Apprentice Support

While not something that interviewees identified for themselves, the above quote exemplifies this tension. Women leaving the private sphere to enter the workforce also means women entering the private spheres of men's out-of-home spaces. Repeatedly, interviewees spoke of men getting in trouble for saying what they would normally have said at work for a very long time. Rigid notions of gender force individuals to both perform gender and reinforce gender amongst each other. When those spaces go from highly segregated to attempted integration without deep and meaningful change management, the majority group might feel like something has been taken away from them.

The idea that women take up space that men should be occupying because that's the way nature intended it. You know, going back to that older ideology of women being the nurturing carers in the home and men being on the job, that still exists. And it's not just with older men. It's with young men as well. It's diluted, but it's still there. And young women are still getting objectified at work, and that's something that can cause all sorts of distress. When you go to work and you just want to complete a task and you've got people groping you or making comments or being disparaging. – Heather, Industry Mentor

Conclusion

The findings from this project present nothing that differs from the established knowledge base, this matters because if the question remains as ‘what is the problem’ there will never be an answer to ‘how do we fix it’.

Participants in the project shared experiences and stories that echo the ones presented in reports published for the last decade. Women in male-dominated trades, and more specifically, in electro technology face a complex mix of misogyny, structural inequality, and systemic discrimination. Providing support to employers is a critical part of the equation, however, it does not address the main issue of discrimination of women at the point of employment. Ongoing efforts should focus on how to address the structural issues that impact women. Transformative change will not come only from working with SMEs directly, it must include measures that are backed by government and that have oversight by relevant agencies such as Workplace Gender Equality Agency (WGEA).⁹

In my experience, most women that do come into trades have had a father or a brother that's working in trades, and they've had some exposure to trades or gone out and helped dad or brother or something on site, or uncle or whatever. And then you do have the stigma, a lot of girls I've spoken to say their parents don't want them to do trades. And that can be people that are already in trades and have seen what it's like out on site for women. Or it can be that a lot of it is just a social thing that women don't do trades. You know, that's not for you, don't worry about that. You're better off to go to university and do a university career or whatnot. There's no future in a trade for women. Then from the employer's point of view they think are they just going to go off and have babies and have families? And we, the employer, are going to have to adjust our workplaces, because we will need more flexible workplaces than what we can offer them. So that's a barrier too. – Cora, Mentor

⁹ See <https://www.wgea.gov.au/>

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