



Improving equity in Canada's low-carbon energy workforce

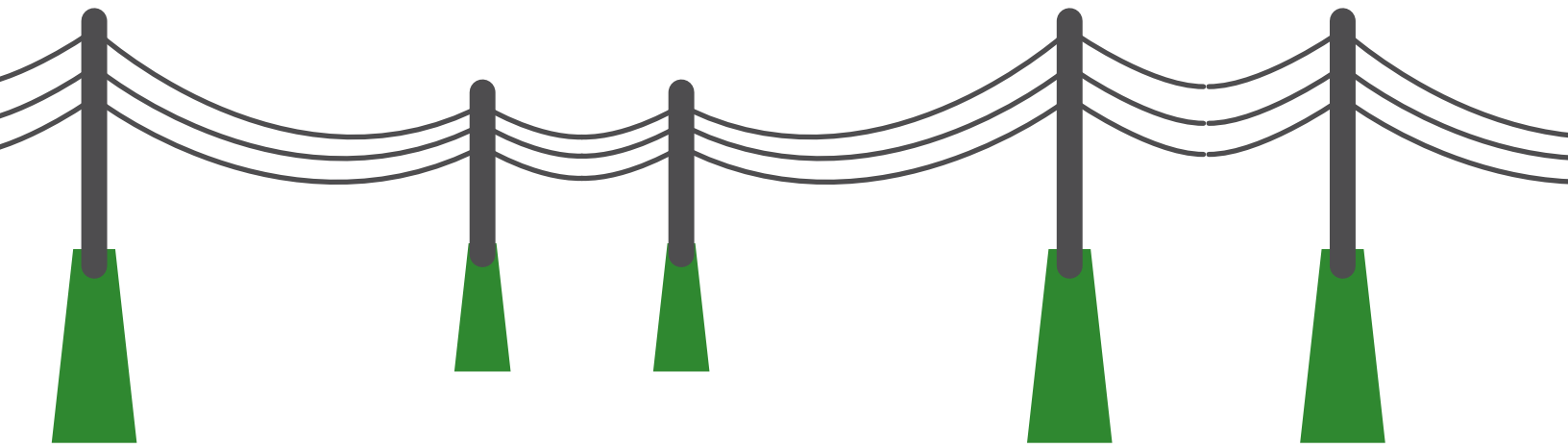


Learning from the lived experiences of
diverse applicants to a grassroots bursary

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Contributions & Implications

This research project offers actionable insights for policymakers, educators, employers, and industry associations seeking to design inclusive workforce strategies.

The findings demonstrate that equity-deserving groups are not disengaged from Canada's low-carbon energy transition; they are actively seeking to lead it.

However, without intentional reforms in funding models, education pathways, hiring practices, and workplace cultures, the sector risks reproducing historical inequities—undermining both social legitimacy and labour-force resilience.

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Executive Summary

Clean energy jobs are growing fast — but many people who want in are being left out.

If Canada wants a successful energy transition, inclusive workforce systems must be part of the plan.

Canada's transition to a low-carbon energy system is creating one of the fastest-growing labour markets in the country. Yet **despite strong job growth projections, the low-carbon energy workforce remains persistently inequitable**. Women and other equity-deserving groups - including Indigenous peoples, racialized communities, newcomers, youth, and LGBTQ+ individuals—continue to be underrepresented, particularly in technical, trades, leadership, and decision-making roles.

The misalignment between workforce demand and inclusive participation poses both a justice concern and a strategic risk to Canada's energy transition.

This study examined how equity gaps in Canada's low-carbon energy workforce are experienced and navigated by those seeking entry, using the Trellis Bursary Fund as a grassroots case study.

Drawing on qualitative analysis of 119 narrative-based bursary applications submitted in 2024 and 2025, the research centers lived experience as a source of workforce insight—addressing a critical gap in existing literature that is dominated by labour-market modelling and surveys.

This small-scale, community-led intervention that operates outside mainstream funding and hiring systems tests alternative norms of inclusion, care, and recognition.

Keywords

Energy sector

Workforce

Canada

Equity & Inclusion

Energy transition



Key Takeaways



Structural barriers - not lack of interest or talent - constrain participation.

Applicants consistently identified financial precarity (tuition, living expenses, unpaid labour), credential recognition barriers, exclusionary workplace cultures, and inflexible training and employment pathways as primary obstacles. These barriers are compounded for individuals with intersecting identities, particularly BIPOC, newcomer, Indigenous, LGBTQ+, and under-25 applicants.



Applicants are highly motivated by justice-oriented values.

Rather than viewing low-carbon energy careers as purely economic opportunities, applicants framed their aspirations around climate responsibility, equity, community well-being, representation, and intergenerational accountability. Many explicitly linked their career goals to correcting historical exclusions and ensuring that the benefits of the energy transition are distributed fairly.



Career aspirations extend beyond narrow technical roles.

While over half of applicants were pursuing STEM or technical programs, many envisioned hybrid pathways that integrate engineering and science with governance, policy, community engagement, research, entrepreneurship, and mentorship. These aspirations align closely with documented workforce gaps in leadership, governance, and community-facing roles in the low-carbon energy sector.



The Trellis Bursary functions as an infrastructure of care.

Applicants emphasized that even modest, flexible financial support materially affected their ability to remain in education, reduce survival labour, and invest in leadership and professional development. Beyond funding, Trellis provided recognition, validation, and access to networks—elements often absent from conventional scholarships and workforce programs.



Conclusion

A successful low-carbon energy transition requires more than technological deployment. It requires inclusive workforce systems that recognize lived experience, redistribute opportunity, and embed care as a structural principle.

Grassroots, women-led initiatives such as the Trellis Bursary illustrate how small-scale, justice-oriented interventions can generate outsized impact by enabling participation, leadership, and retention among those historically excluded.

By learning from these lived experiences and scaling their underlying principles, Canada can build not only a larger low-carbon energy workforce, but a more just, representative, and resilient one.

Recommendations

- Recognize bursaries and mentorship as workforce infrastructure, not charitable add-ons.
- Embed equity metrics into clean-energy funding, procurement, and workforce programs.
- Value lived experience and transferable skills alongside formal credentials in hiring.
- Support flexible, non-linear education and training pathways, including micro-credentials and career pivots.
- Partner with grassroots, women-led initiatives as innovation labs for inclusive workforce design.
- Expand leadership and governance pipelines, not just technical roles.
- Center care, recognition, and belonging as core components of retention and job quality.



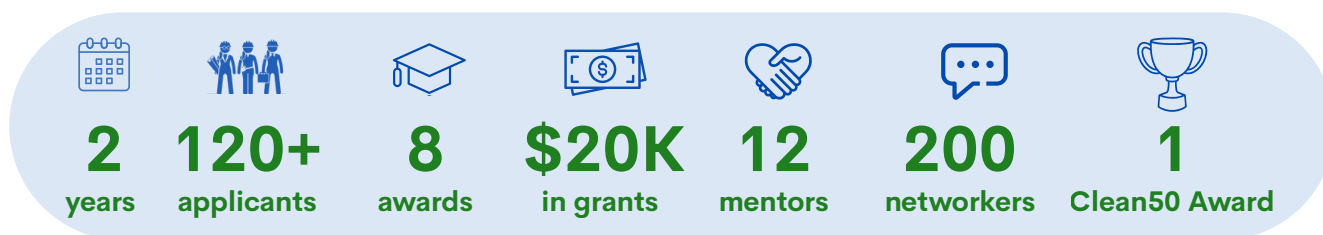
About the Trellis Fund

The Trellis Fund supports the next generation of energy professionals in Canada via programming that includes grants, mentorship, profile building and access to industry.

Trellis hosts an annual grant program for students who self-identify as women and are studying to play a role in the clean energy transition in Canada. Students are invited to apply for one of four annual \$2500CDN grants in support of their education. All fields of study are considered: trades, college or university training, up-skilling and micro-credentialing.

Trellis was established in 2024 in honour of Veronica Gardner by her daughter Rebecca Black alongside the Advisory Committee of female energy professionals who established non-profit Women in Renewable Energy WiRE in 2014. Leading with care, they are dedicated to increasing equity, diversity and inclusion in the renewable energy and infrastructure sectors in Canada and beyond.

Impact Snapshot



About the Research Paper

Title

Improving equity in Canada's low-carbon energy workforce: learning from the lived experiences of diverse applicants to a grassroots bursary

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Access the complete paper

<https://hdl.handle.net/1828/23076>

