Pathways to Clean Energy Careers – Solar Austin

Program Profile

Building a Diverse and Skilled Clean Energy Workforce

In 2019, Solar Austin, a nonprofit that advances and advocates for renewable energy throughout Central Texas, launched the Pathways to Clean Energy Careers Program to support students of color and gender-diverse students in securing internships in the solar energy industry and other sustainability-focused career paths. The program also developed a set of best practices for clean energy companies that seek to improve diversity and inclusivity in their recruitment, hiring, and retention of staff.

Eligible participants include undergraduate students of two- to four-year technical universities, graduate school students, and graduates who are in the process of a career change. The internship program benefits students by placing them in paid internships that provide valuable experience in a growing field and benefits employers by matching well-qualified students to specific job descriptions. The program requires interns to be paid a living wage by the host companies to provide students with the financial resources necessary for success. Solar Austin can sometimes offer a subsidy to companies for this if needed.

The program hosts networking events to provide students and alumni of the program with a platform to connect with others in the clean energy industry. The program also connects current students with mentors in the clean energy field to give them the connections to succeed long-term. Mentors are eligible to participate in the program if they have worked in the clean energy industry (preferably in Texas); are able to participate in a two-hour new mentor Diversity, Equity, Inclusion, and Accessibility (DEIA) training; and can commit to a full-year obligation.

The Pathways program also operates a solar installation training initiative at the Del Valle Independent School District (ISD) Opportunity Center. This enables interested high school students to discover what a typical day in the solar installation field is like and provides Occupational Safety and Health Administration (OSHA) training for students interested in pursuing these careers.

Fast Facts

Program scope: Matching students with diverse backgrounds to sustainability-focused internship opportunities.

Communities served: Students of color and gender-diverse students in high school, undergraduate, and graduate education programs.

Funding: City of Austin, small donors, business sponsors, and grantmaking foundations.

Key partners: Huston-Tillotson University, solar companies, Digital Workforce Academy, American Youth Works, volunteers, and consultants.

Promising practices: Maintain lasting networks, start with authentic and vetted recruitment, share the recipe for success.

Community History

In 2021, the City of Austin conducted a study of diversity in the green workforce.[1] The highest estimates found that the share of total employment opportunities in Austin that were considered "green jobs" increased from 4.7 percent in 2010 to 5.6 percent in 2019. At the same time, survey results of community organizations in Austin revealed that only approximately a third of these organizations were engaged in efforts to recruit people of color in their workforce development efforts.[2] This mirrored the national trends of people of color and women being underrepresented in the growing solar workforce.[3] Across the clean energy industry, women are underrepresented in the workforce and have both lower rates of retention and lower wages.[4]

While leaders in the clean energy industry name diversity and equity as top business priorities, many have fallen short on adequately reflecting the diverse American population in their hiring practices. This is in part because of the industry's reliance on word-of-mouth recruitment techniques and general unfamiliarity about the industry's viable career pathways within educational and training programs.[5]

Surveys and focus groups of Austin residents have found that clean energy topics (such as solar installation) are of significant environmental interest to people of color in the area.[1] The results also show a diverse range of occupational interests, many of which are applicable to the clean energy industry. These include community and social services, information technology, government, public services, architecture, and engineering. Once barriers to entry for people of color are reduced, these diverse interests can support the clean energy industry with a wide array of business needs to support rapid growth.

In response to the need for diverse and equitable hiring practices in the solar industry, Vote Solar and the Solar Energy Industries Association initiated a diversity challenge for the solar industry in 2019. Solar Austin launched the Pathways to Clean Energy Careers program in response to this challenge. The Pathways program introduces students to the diversity of career options within the clean energy industry such as sales, marketing, finance, administration, design, engineering, and more through stepping outside of traditional recruitment practices.

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[1] MEASURE, 2021. What Works in Works Programs: Building Equity in Austin's Civilian Conservation Corp.
[2] City of Austin, 2022. Expanding Pathways to Quality Jobs in Austin's Growing Green Economy.
[3] Texas Solar Energy Society, 2020. Building Pathways to Clean Energy Careers: Solar Austin Develops Equitable Clean Energy Jobs Internship Program.
[4] World Economic Forum, 2022. The energy industry has a significant gender gap.
[5] Tatianna Cannon, Solar Austin, 2023. Personal Communication.

Community Engagement

By partnering with Huston-Tillotson University, a historically Black college and university, and Del Valle ISD, a local high school, the Pathways program enables qualified students from diverse backgrounds to get a start in the clean energy industry. Approximately 96 percent of students from HTU identify as a person of color[6] and 96 percent of students at Del Valle ISD identify as a person of color.[7] The solar installation training at Del Valle will allow Solar Austin and its partner NATiVE Solar to use the talent of the diverse student population. The valuable experience and career preparation provided by the program will ensure that students will have many more opportunities in the solar industry after graduating high school.

Solar Austin recruits students by attending clean energy lectures with informational materials to find candidates who are most likely to be interested in the program. It also partners with academic organizations on campus to foster relationships with underrepresented students with specific academic interests and training (e.g., female Hispanic engineers with an interest in clean energy).

The Pathways program is constantly evolving based on feedback from stakeholders. For example, the decision to expand the services offered to the solar installation training program was made in response to feedback from stakeholders. The Pathways program also evaluates its strategy each year after students complete their internships based on the outcomes of their experiences. Administrators evaluate whether job descriptions could be worded better to attract more appropriate candidates to roles, or whether there are strategies to provide students with a more robust internship experience.

Key Partners

Solar Austin's Pathways to Clean Energy Careers program was created in partnership with a diverse team of partners, including:

- American Youth Works – A nonprofit focused on providing young people with opportunities to build careers, strengthen communities, and improve the environment through education, on-the-job training, and service to others.
- Huston-Tillotson University – A historically black college and university in Austin, Texas.

[6] Huston Tillotson University, 2021. Institutional Fact Sheet – Fall 2021.
[7] Texas Solar Energy Society, 2020. Building Pathways to Clean Energy Careers: Solar Austin Develops Equitable Clean Energy Jobs Internship Program.

- Del Valle ISD Opportunity Center – A public high school in Austin, Texas.
- Digital Workforce Academy – An organization that provides technical training and certifications for people seeking jobs as Craft Journeymen in industrial careers in Austin, Texas.
- Solar United Neighbors – A nonprofit organization representing homeowners and communities interested in solar energy.
- Environment Texas – An environmental advocacy organization.
- Various companies in Austin that manage manufacturing, operations and maintenance, financing, software, marketing, and other services related to solar energy (e.g., NATiVE Solar, FTC Solar, Yotta Energy, Mission Solar Energy, Lighthouse Solar, Freedom Solar Power, Clean Power Marketing Group, Bodhi, piper maddox, Zpryme).
- Consultants who provide resume writing and job interview training to interns and diversity and inclusion training for host companies.

Each of these program partners played a role in the creation of the Solar Austin Clean Energy Careers programming. Partners were identified primarily through word-of-mouth, as host companies typically have an existing equity statement and reach out to Solar Austin to implement their commitment to equity. Solar Austin develops and maintains trust by requiring host companies to participate in annual diversity, equity, and inclusion trainings as well as regular check-ins. This process exists to ensure that companies are equipped to provide interns with a high-quality and equitable internship experience.

Funding Mechanism

The City of Austin initiated the internship program with a $25,000 grant to hire a program manager. The internship program receives additional funding from private foundations and companies including Bank of America. Volunteers support the program by donating their time and the solar installation program relies on donated equipment and labor from a network of industry sponsors. Pathways' administrators are now looking to scale up funding for the program.[8]

[8] Texas Solar Energy Society, 2020. Building Pathways to Clean Energy Careers: Solar Austin Develops Equitable Clean Energy Jobs Internship Program.

Program Impact

As of November 2023, two students from the high school program have been hired for full-time roles and 15 students had completed OSHA training through Solar Austin.[9] Despite the initial summer internships occurring in 2020 during the pandemic, the Equitable Clean Energy Job pilot program exceeded the set goals and key performance indicators.

> "This program truly does facilitate and launch students into the clean energy industry and makes them develop a strong passion for it."
>
> **- Daniela C.,** a student who participated in the Solar Austin Pathways to Clean Energy Careers program

Since 2019, the program has placed approximately 65 students in internships in clean energy roles. Ninety-eight percent of those students have identified as BIPOC, female or non-binary, or both. These placements have been at approximately 32 different companies, with around 80 percent of the interns retaining a role within their placement site or the clean energy field more broadly.[9]

Program participants have noted that they benefit from the in-field experience they could not achieve in the classroom alone, which also allowed them to hear insights directly from professionals in this career path.[10] Moving forward, Solar Austin aims to place between 50 and 100 students in internships annually and to replicate this program within other nonprofit organizations.

Barriers and Challenges

The primary challenge that Pathways program administrators face is finding host companies for internships, as there have been consistently more qualified students interested in the program than open internship opportunities. Program administrators have responded to this challenge by maintaining relationships with host companies, who may be interested in hosting additional interns in subsequent years.[9] A lack of funding has also contributed to that issue, as Solar Austin employs only one full-time staff member. Additional funding would allow Solar Austin to grow its full-time staff and dedicate more time to identifying additional internship opportunities. Overall, more funding would help expand the program to reach more students interested in clean energy careers. Thus, more funding, which would allow for more staff, could help bridge this gap in demand.

[9] Tatianna Cannon, Solar Austin, 2023. Personal Communication.
[10] Solar Austin. Pathways to Clean Energy Careers (embedded video).

The program has also seen host companies express the highest demand for interns who can participate in door-to-door sales. However, there are concerns for students of color and gender-diverse students encountering safety risks and discrimination during door-to-door sales, so the program administrators work with companies to identify alternative positions for interns. In two successful cases, students were placed in a digital marketing internship and a warehouse coordination and supply chain internship, which allowed the companies to tap into a broader range of skills.[11]

Recommendations from the Field

- **Share the recipe for success.** Solar Austin works with the Green Workforce Collaborative and the City of Austin to share insight into successful program elements with other local nonprofits.
- **Start with authentic and vetted recruitment.** Solar Austin administrators recommend that contractor engagement start with larger regional contractors and then grow to mid-sized groups.
- **Maintain lasting networks.** Solar Austin encourages program mentors to stay in touch with interns for at least a year so that students are supported beyond their single-semester placement. The program also hosts networking events for both current students and alumni of the program to allow enduring networks to form among students interested in green careers.

For More Information

- Pathways to Clean Energy Careers Program
- Expanding Pathways to Quality Jobs in Austin's Growing Green Economy
- EPA Informational Resources on Energy Efficiency and Renewable Energy in Low-Income Communities

[11] Tatianna Cannon, Solar Austin, 2023. Personal Communication.