

Equity-Focused Minnesota Workforce Development Program

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ABSTRACT

Energy efficiency as an employment sector has grown rapidly over the past decade. The sector continues to grow as more funding is allocated to it—however, some job gaps still exist. The greatest workforce shortages in energy efficiency are largely found in the construction trades—including heating, ventilation, and air conditioning (HVAC) technicians, insulators, and electricians. Meanwhile, communities of color experience persistently higher unemployment rates than their white peers.

Analysis detailing these findings in Minnesota led Xcel Energy and the Center for Energy and Environment to design a workforce development program to address the workforce shortage by recruiting, supporting, training, and ultimately employing women and Black, Indigenous, People of Color (BIPOC) living in areas of concentrated poverty in St. Paul and Minneapolis.

This program was launched at the beginning of 2022. It starts with robust partnerships with local nonprofits and workforce development organizations that recruit and provide wraparound services and case management for interested priority participants. Participants then enroll in a paid, in-depth training that introduces them to clean energy career opportunities, foundational building science knowledge, HVAC fundamentals, residential energy auditing, installation techniques for insulation and air sealing, job readiness, and soft skills development. At the end of the five-week training, interested participants are placed into energy auditor, insulation installer, and HVAC internships for four to five months to gain on-the-job experience, ultimately making them very attractive candidates for employer partners to hire.

Introduction

Through innovative partnerships, robust funding mechanisms, and a responsive program design, Xcel Energy and the Center for Energy and Environment (CEE) developed a unique workforce development program focused on bringing under-represented workers into the residential energy efficiency field to fill much-needed positions. This program moves beyond offering training resources, instead mirroring highly developed workforce models in other sectors—seeking to remove barriers to clean energy jobs and to provide support throughout the career development process.

Background

In 2018, energy efficiency was the fastest-growing sector in the energy industry, accounting for half of the entire industry’s new jobs (E2 and E4TheFuture 2019). Energy efficiency jobs such as HVAC technicians and insulators are largely found in the trades. Over 80% of the employers in these trades have 25 or fewer employees. Based on feedback from CEE’s trade partners, larger employers are more connected to formalized workforce training and development systems like those offered by unions, but smaller employers tend to hire people through informal networks and increasingly experience challenges in hiring and retention.

In 2020 and 2021, the Building Performance Association and U.S. Department of Energy conducted a workforce development needs assessment of state weatherization agencies, HVAC trade organizations, and insulation contractor companies (Building Performance Association 2021). Areas of need identified in this assessment include increased awareness of careers in energy efficiency as well as engagement of previously untapped communities of workers, like formerly incarcerated individuals, immigrants, women, and BIPOC. The assessment also identified time constraints around onboarding and training new employees as well as the need to connect new entrants to on-the-job internship opportunities.

Through research conducted in 2018, CEE found that 85% of Minnesota's energy efficiency employers reported difficulty hiring (Foshay and Steigauf 2019). CEE and other organizations that employ energy auditors in Minnesota have struggled to attract and retain workers, making it difficult to keep up with customer demand and goals for scaling. Likewise, contractor partners that provide insulation, air sealing, and HVAC work for Xcel Energy and CEE customers continue to be scheduled out sometimes as far as six months due to retention and hiring struggles. This hiring demand continues to increase dramatically as more funding, with the intention to advance energy efficiency and climate goals, comes to the industry from federal and state governments as well as utilities.

Meanwhile, Minnesota's women and communities of color continue to be underrepresented in the industry (Clean Energy Economy Minnesota 2021). As Minnesota's economy scrambled for a new normal amid COVID-19-related challenges, clean energy jobs grew about 10% in the second half of 2020, twice as fast as overall job growth (Clean Energy Economy Minnesota 2021). However, within this resilient and growing sector, people of color represent just 28% of the state's clean energy workforce (Figure 1), and women represent about 27% (Clean Energy Economy Minnesota 2021). By August 2020, Black unemployment had risen to 16.3% compared to a rate of 6.7% for white Minnesotans (Clean Energy Economy Minnesota 2021).

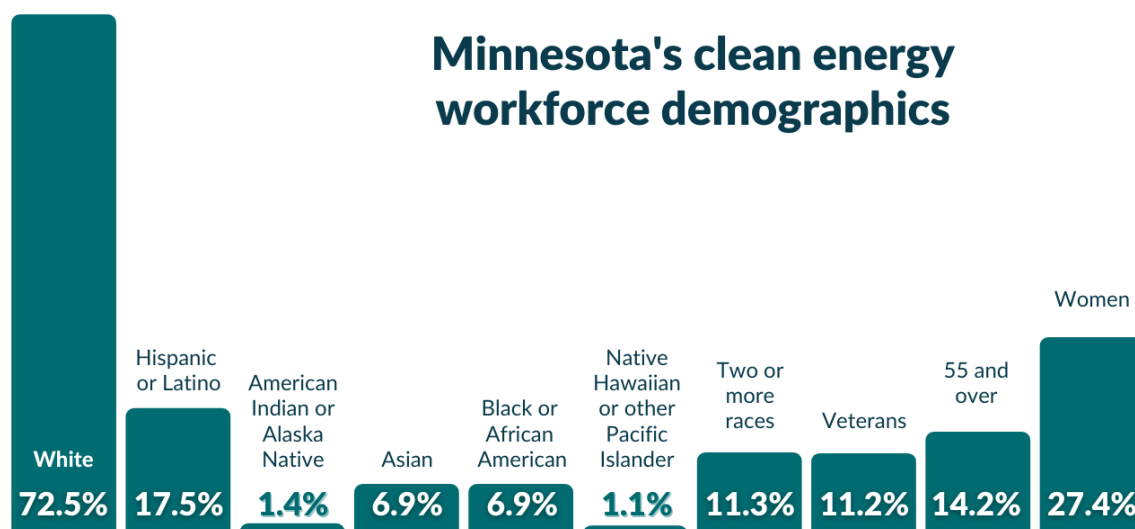


Figure 1. Clean Energy Economy MN: Clean Jobs Midwest Report 2021. Source: cleanenergyeconomy.mn.org.

To expand the energy efficiency sector, it will be critical to attract and retain a significant number of new workers. To do this equitably, it is important to understand the needs of

underserved and under-represented communities and to look at other sectors for successful models. Building awareness of clean energy careers and removing barriers for women and BIPOC residents to enter these fields will be a key initial step.

Program Development

Based on this research and experience, CEE was interested in building a workforce development program to serve the needs of the industry and bring equitable access to high-quality jobs—defined by the Pacific Communities Ventures (2016) as jobs that contain at least three of the following; a living wage, basic benefits, career building opportunities, wealth building opportunities, and a fair and engaging workplace. It was clear that both CEE and partner contractors were not effectively tapping into all available networks of workers, particularly the BIPOC community. To get better at recruiting new demographics of workers to the industry, CEE started developing partnerships with embedded and trusted organizations to reach these communities.

At the same time, the Minnesota Public Utilities Commission initiated a docket asking Minnesota’s investor-owned utilities to assemble plans for investments that reduce carbon, are consistent with utility resource plans, and could contribute to economic stimulus in light of the recent downturn due to COVID-19. In response to this request and as a way to address events of civil unrest following the murder of George Floyd, Xcel Energy’s proposal included a commitment to fund a workforce development program partnering with CEE and prioritizing recruitment of women and BIPOC residents living in areas of concentrated poverty in Minneapolis and St. Paul. This eventually led Xcel Energy to file a modification to their triennial conservation improvement plan at the end of 2020 to fund a three-year program. While workforce training is not new to Xcel Energy’s CIP portfolio, this program model is unique in the way it is simultaneously addressing skilled workforce shortages, placing equity at its core.

Partnerships

Early conversations with nonprofit organizations with workforce development expertise, like the Hmong American Partnership and EMERGE Community Development, led CEE to prioritize partnerships in creating and implementing a robust and supportive program. Those conversations indicated that it would be important to give new workers more incentives and support to get them engaged and ready to enter the industry. Three consistent elements were identified to create a successful start-up model including:

- Paid, high-quality training
- Wraparound support services
- Job placement assistance and career readiness

Many community-based organizations geared toward economic development, workforce training, and social services have access to dedicated funding sources for career navigation, job placement, and wraparound support services for unemployed and underemployed BIPOC workers. Wraparound support services include financial coaching, food and nutrition support, and financial assistance with childcare payments, transportation costs, technology, rental and housing assistance, and coordination with mental health care providers.

Additionally, CEE found that community-based organizations' strategic priorities aligned with the goals of Xcel Energy and CEE to provide access to high-quality jobs for unemployed and underemployed woman and BIPOC workers. For example, employment programs in Minnesota—such as the Minnesota Family Investment Program, the state's welfare reform program for low-income families with children—define their metrics by clients' abilities to enter into a career that leads to greater self-sufficiency and less reliance on public assistance within 60 months.

Other key community partners include MIGIZI and Urban Roots. Both nonprofit organizations are much smaller than EMERGE or HAP but have proved to be greater referral sources for qualified trainees. MIGIZI, a Native American nonprofit organization based in Minneapolis nurtures the educational, social, economic, and cultural development of American Indian youth through their programs. One of these programs is a STEM-focused Green Jobs Pathway for young people with an interest in learning about renewable energy. Urban Roots is an organization based in Saint Paul that employs young people as well through food and environmental education. Both organizations were identified earlier on as key partners due to their connections in communities we were trying to reach in Saint Paul and Minneapolis and the clear on-ramp for young people who have an interest in energy efficiency.

Establishing partnership with such organizations ensures that Xcel Energy and CEE can focus on their expertise in the energy efficiency industry while partners provide participants with robust support and access to services. Tapping into community-based organizations' networks of clients and participants also helps Xcel Energy and CEE achieve our goals of recruiting under-represented workers.

Employer Engagement

CEE and Xcel Energy have fostered long-term relationships with insulation and HVAC contractors as well as energy audit service providers in Minnesota. In speaking with workforce development experts, it was clear we needed to have engaged and excited employer partners to ensure successful job placement after training. CEE conducted interviews with these employer partners to understand what they look for in an ideal candidate.

For most employers it was important for candidates to have a foundational understanding of how homes are constructed, and the energy systems involved. They recommended training on work-site safety, use of diagnostic tools, and practice with installation equipment and materials. They emphasized the importance of having experience on job sites, so workers know what conditions to expect, such as tight spaces and extreme climate conditions.

We also asked about minimum criteria for hiring. Questions revolved around whether employers required background checks or drug testing; considerations for those with justice involvement including DUIs, DWIs, misdemeanors, or felonies on their record; and work eligibility status in the United States. When asked about driver's license status and transportation, it became clear that most employers would need workers to obtain a driver's license and have a reliable form of transportation to meet at the job site, often times in a suburb outside of an urban center.

CEE asked about credentials that were required or desired by employers and received mixed feedback. Many employers eventually needed at least one worker per crew credentialed to meet utility program standards. They said it would be helpful, but not obligatory, if prospective workers were certified before hiring.

All employers expressed interest in hiring from this program, but also in hosting interns, participating in the training, and engaging in mock interviews. They continued to mention difficulty in hiring and retention and were excited for new opportunities to hire trained workers. This early feedback from employers helped shape our recruitment strategies, eligibility criteria, training topics, and internship structure.

Home Energy Career Training Program Structure

We established the Home Energy Career Training program based on feedback from partners and employers described in the development process, in addition to the original goals of meeting the needs of the industry and making jobs more accessible to under-represented workers.

Recruitment and Outreach

Xcel Energy and CEE rely heavily on partner organizations to use their networks and current clients to do outreach to the target populations to meet participation goals. Marketing materials developed by CEE with guidance from Xcel Energy and partners include website posts, social media, information sessions, and one-pagers (Figure 2). These materials are available to all partners in addition to Xcel Energy and CEE. The program team also does broad outreach to community-based organizations, public housing, city and county workforce divisions, and other interested parties to get the word out. The program spends about two months recruiting around 20 participants per cohort with two cohorts completed each year.

Are you looking for work in a fast-growing industry?

Register for Home Energy Career Training
Paid 5-Week Training

Cohort Begins: **March 28th**
Register by: **March 14th**

Earn \$2500 and receive an industry-recognized credential in Building Science Principles (BSP). Building Science explores how changing one part of a home affects homeowners' comfort, health, and safety.

5-Month Paid Internship Opportunities + Job Placement Assistance
Internship includes health and dental benefits!

TRACK 1: Energy Auditor
Earn Building Analyst BPI Certification

TRACK 2: Insulation Contractor
Earn home insulation BPI Certification

Register Today!
Visit mncee.org/job-training

Training Includes:

- Basics of building science and home energy audits, insulation, and air sealing
- Installation training from experts
- Relevant job-site safety guidelines, math for construction, and more!
- Basic support services (e.g., bus, gas cards, etc.)

Qualifications

- 18 years or older
- Legally authorized to work in U.S.
- Able to obtain a driver's license by the end of internship (within 6 months)
- Minimum 5th grade reading/math level

Internship Wage: \$16.50 per hour
Starting wage for Insulation Contractor/Energy Auditor: \$17-19 per hour

cee⁺
Center for Energy and Environment

Xcel Energy

CAPI
Center for Affordable Housing and Community Development

HAP
Home Affordable Program

EMERGE
Energy Market Entry Resource Group

This program is provided by Xcel Energy in partnership with the local nonprofit Center for Energy and Environment.

Figure 2. Marketing flyer for workforce development program.

The primary participant targets are adults (18+) living in areas of concentrated poverty in Minneapolis and St. Paul who identify as BIPOC and/or women. We also specifically target low-income households (self-reported) to make sure the program is helping to build wealth and alleviate energy burden by increasing wages. The online registration form used to screen potential candidates includes questions related to the following:

- Education level
- Driver's license status and driving record
- Justice involvement (i.e., DUI/DWI/BWI, misdemeanors, and felony convictions)¹
- Accommodations required to complete the training
- Annual household income

By engaging workforce development organizational partners to recruit participants, the program is able to attract those who meet demographic goals of the program but who are also well supported with case management and wraparound services—such as transportation, technology, childcare, mental health resources, and more.

Introductory Home Energy Career Training

Once participants are recruited, they attend an introductory five-week paid training focusing on topics related to residential energy efficiency, including energy auditing, air sealing/insulation, and HVAC work. Stipends of \$500 per week are paid to each participant along with weekly transportation gift cards.

Participants learn about the theory and practice of home energy, including basic building science and the relationships between the building envelope, heating systems, cooling systems, air infiltration, insulation, mechanical ventilation, and other home systems. Participants have the opportunity to receive credentials as well, including the Building Performance Institute's (BPI's) Building Science Principles Certificate of Knowledge.

In addition, participants receive hands-on air sealing and insulation training, using props designed in accordance with BPI standards. Additional topics cover low-cost/no-cost energy solutions, job-site safety guidelines, basic math for home insulation, and workplace readiness. The high-level learning objectives of this course are:

- Understand the landscape of clean energy jobs
- Learn the value of home energy efficiency in peoples' lives
- Understand the "House as a System" concept
- Identify components of different home building types
- Understand the basics of thermodynamics applicable to home energy
- Recognize the benefits of air sealing and insulation
- Recognize the interaction between the building envelope and the HVAC systems
- Understand the interaction between home tightness, ventilation, and combustion safety
- Be prepared for an internship in an entry-level insulation or energy auditing role
- Obtain Building Science Principles Certificate of Knowledge by passing the exam

¹ Justice involvement does not disqualify a participant from the training program; however, we do share that this information will come up on a background check for some employer partners and could disqualify them for further employment.

The combination of these topics provides a solid base in home energy efficiency that can be used for several clean energy career pathways, but particularly the internship pathways offered through the program's next phase.

Internship Pathways

Following the introductory five-week course, participants who would like to continue their education can apply for internship positions as a second step in this career training program. The internships run for about four months and directly follow the Home Energy Career Training. Qualified interns become temporary CEE staff and are paid a living wage with health care benefits and paid time off. This program currently offers two intern pathways, including Home Insulation/Air Sealing and Energy Auditing. Interns will train with experienced practitioners and will work toward earning a national recognized BPI credential specific to each pathway. In 2023, an HVAC pathway will be added. There are internship positions for roughly 30% of the participants who successfully complete the Home Energy Career Training with flexibility to include more interns if additional participants are interested.

Pathway 1 Home Insulation and Air Sealing. As an extension of the introductory training, interns in the home insulation and air sealing pathway will spend time in the first few weeks practicing techniques on props designed to replicate real world installations. They will then work on a small number of actual insulation and air sealing projects in homes under the guidance of experienced insulators and CEE training staff. Once placed with host partners, participants will spend four days per week completing projects with trained crews on more homes. At the end of the four-month internship, participants will have an opportunity to take the BPI Air Leakage Control Installer certification exam.

Pathway 2 Energy Auditing. Through this pathway, interns will receive hands-on experience installing low-cost energy-saving products such as door weatherstripping, pipe insulation, lighting, and smart thermostats. Interns will then be trained in effective communication skills related to home energy efficiency projects. Finally, they will learn basic diagnostic skills like blower door testing and combustion safety analysis by shadowing and performing audits on customer homes. At the end of the internship, participants will have the opportunity to take the BPI Building Analyst field and written exam to earn certification.

During the first month, interns from both pathways train primarily with CEE on props and homes as part of CEE's program portfolio. For the remaining duration, interns are placed in CEE programs or at partner organizations. This gives employers and interns the opportunity to work side by side before hiring starts. It also gives interns a glimpse into different workplace cultures and procedures. Once per week during these internships, participants meet with the training staff at CEE to recap what they have learned that week and prepare to test for credentials. There is also ongoing training on workplace readiness and job placement. See Figure 3 below for a more detailed timeline.

Initial four weeks of internship	Month 1	Month 2	Month 3	Month 4
Additional practice with diagnostic equipment and props including blower door and dense packing a mock wall.				
Shadow Energy Auditors, practice low-cost measure installs.				
Train on-site at insulation jobs with CEE training staff and insulation contractor including prepping an attic floor for insulation, air sealing an attic floor, and installing dense pack sidewall insulation.				
Onboarding with CEE human resources topics including employee's rights specific to Minnesota wage and employer laws; understanding your benefits; progress performance evaluations: what are they and how to make the most of it; and navigating workplace conflict.				
Internship placements with employer partners				
Orientation for interns at job site with CEE staff and Crew Lead or Site Supervisor.				
With guidance from an employer Crew Lead or Site Supervisor, perform specific practices of potential employer projects.				
Follow on-the-job expectations for crew members and staff at employer job sites.				
Crew Lead or Site Supervisor provides less hands-on instruction and more general supervision and mentorship.				
Crew Lead or Site Supervisor provides feedback in the form of an internship performance evaluation that assists intern in understanding their strengths and areas for growth related to technical and soft skills needed in industry.				
Prepare for credentials and entry into energy efficiency careers				
Weekly meetings with CEE training staff regarding internship progress.				
Communication with community-based workforce partners' case management staff and CEE staff to address potential needs in transition from internship to full-time industry employment.				
Practice testing and study time.				
Certification testing.				
Evaluation and reflection with interns on modifications needed for future cohorts. Join alumni group for program graduates to provide support for future interns.				

Figure 3. Paid internship timeline.

For those participants not pursuing internships, we facilitate referrals to other clean energy training programs. One such training program is the City of Minneapolis Health Department's Green Careers Program. This is a five-day training program preparing participants to sit for the NABCEP Solar Associate exam. Participation in adjacent programs following the initial training course will be tracked for up to two years after they have graduated from the Home Energy Career Training program.

Wraparound Services

Funding for wraparound services is mostly provided by the partner organizations, with a small portion available from the main Xcel Energy funding stream. This allows the program to heavily leverage existing workforce system resources to provide services while ensuring flexibility for additional needs not covered by existing funding.

During both the five-week training and the internship, workforce partners provide participants with case management services to ensure they have what they need to participate each day: transportation, technology, adequate childcare, etc. They also provide training in workplace readiness to help participants present themselves to future employers and prepare for their next job.

Working side by side with one of our main community partners, we have been able to address some of these obstacles through financial coaching and transportation assistance. One participant was regularly facing difficulties in attending the five-week Home Energy Career training due to the loss of a vehicle, making their commute to and from the training over one and a half hours using the Twin Cities' public transportation system. Together with the community partner, we were able to provide them with additional funds to cover a diagnostic assessment for their car and provide Uber and Lyft gift cards while their vehicle was being repaired. As a result, we were able to increase attendance and this trainee completed the five-week training successfully moving on to the Auditor pathway.

Job Placement Support

Xcel Energy and CEE are trusted sources of project work, information, and training for insulation contractors and weatherization service providers. This made it relatively easy to establish a pool of employment partners. We leverage these relationships with employers to connect participants directly to insulation and energy auditor careers.

This program provides ongoing opportunities for participants to meet with employer partners and build a bridge to employment. This is done in many ways, including guest speakers from employers and mock interviews, as well as direct placement of interns with insulation companies and auditing organizations.

Through initial interviews with employers, we discovered that many employment partners need training on diversity, equity, and inclusion (DEI) in order to be an inclusive workplace for employees that come from different backgrounds and cultures. The program provides ongoing human resources and DEI training for employment partners to get them ready to hire and retain a new demographic of workers.

Participation

For each introductory training, the goal is to have 15–25 participants enroll and complete the training. For the internships, there are eight spots available between the auditor and insulation pathways. Between 2022 and 2023, we plan to complete four cohorts. We will continuously look for ways to expand by increasing funding, staffing, and partnerships.

Program Progress & Results

While this program is in its initial phase of implementation, we have already seen promising trends in terms of recruitment, enrollment, employer engagement, and opportunities to expand program success through new partnerships and funding. We've also been learning lessons about trainee readiness and screening criteria that is already changing the way we recruit for upcoming cohorts.

Partner Success

In addition to our early partners like Hmong American Partnership and EMERGE, we've added partners based on their interest in and connection to priority participant communities. One such partnership is with, CAPI, a community-based nonprofit located in Minneapolis. Formerly known as the Center for Asian and Pacific Islanders, the organization changed its name to CAPI

in 2008 to be more inclusive of other immigrant and U.S.-born populations of color. With historical ties firmly rooted with immigrant and refugee communities, CAPI has extensive experience serving Minneapolis residents with limited English or math proficiency, low educational attainment, and other barriers resulting from poverty, unstable housing, and structural racism.

Initially, CEE sought out CAPI due to their expertise in culturally specific workforce development, social services, and recruitment of BIPOC communities for workforce training programs. From these initial conversations, it was clear that CAPI would be a strong partner in recruitment, as their clients could benefit from the credentialed training for energy efficiency careers. This dovetails with CAPI's work to get underemployed and unemployed BIPOC communities into jobs with family-sustaining wages.

When a funding opportunity arose to increase the number of BIPOC participants in green career pathways and energy efficient careers, CAPI enlisted CEE as a partner. As part of the American Rescue Plan Act, the Minneapolis City Council allocated \$100,000 to Minneapolis Employment & Training for Green Industry Pathways. Eligible projects included existing pathways that target green jobs or have an additional green jobs training component, as well as new pathways that prepare individuals for green jobs. CAPI was awarded the Green Industry Pathways funding to hire a full-time navigator for this program with additional funds allocated to CEE for training needs. This grant also allowed CAPI to allocate an additional \$100 per participant for support services to be used to assist with transportation, technology, or fees related to childcare or housing.

Recruitment

Recruitment within the first few months for this workforce program also showed promising signs. Within six weeks of registration officially opening for the program, 62 people had completed the online registration screening form. Of those 62 people, 72.6% identify as Black and over 85% identify as Black, Indigenous, or People of Color (Figure 4). Over half self-reported that their annual household income was \$0–\$19,000 per year and close to one-quarter reported an income of \$19,000–\$29,000 per year (Figure 5). These indicators show that initial recruitment efforts to engage BIPOC communities and income-qualified households into this training are on track.

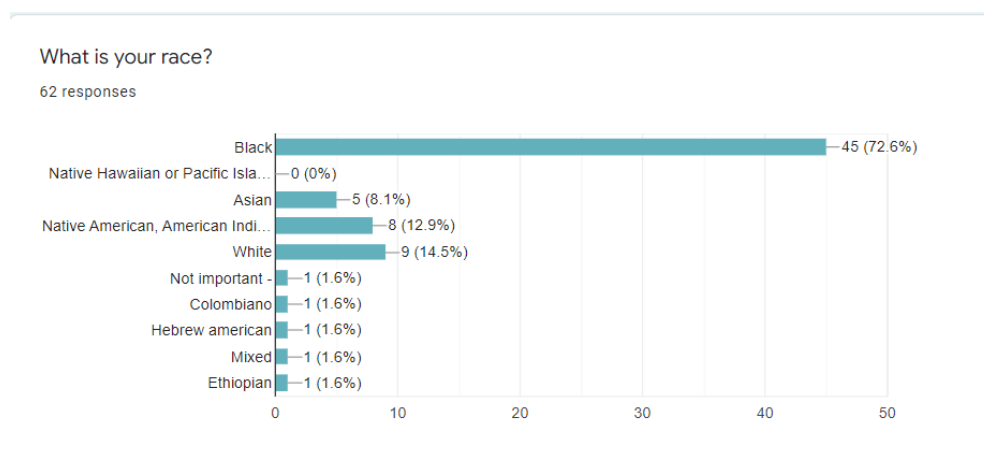


Figure 4. “What is your race?” responses from candidates for Home Energy Career Training.

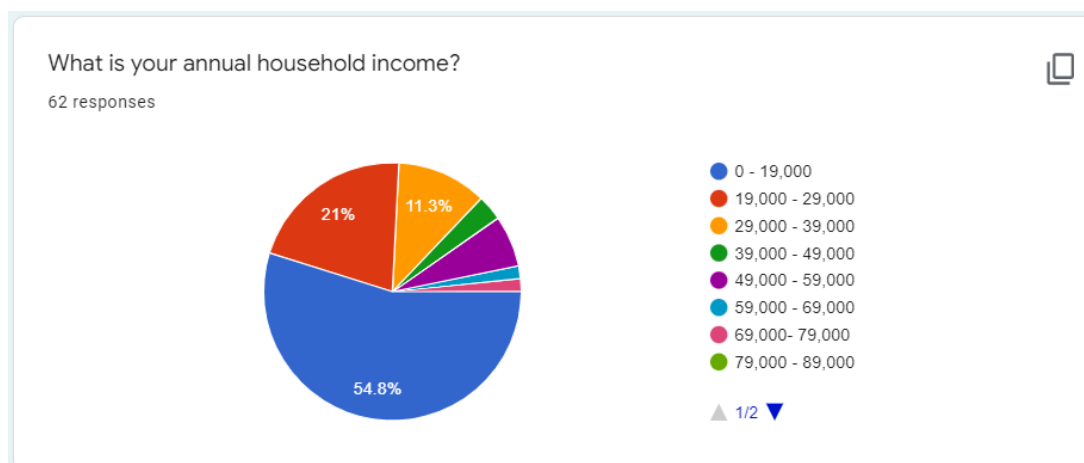


Figure 5. “What is your annual household income?” responses from candidates of Home Energy Career Training.

Participation and Attrition

While attrition, or the sudden departure of program participants, is to be anticipated in any workforce development program, it remained unclear until the first cohort began the role COVID-19 could still play in deterring participants from attending an in-person 25 hours per week training program. 10 of the 25 enrollees that had completed the registration process online and passed through an eligibility screening arrived at the orientation a week before the first day of training. The orientation provided time for trainees to sign consent forms related to stipend payment, marketing, photo release, release of information to case managers, and an agreement stating their understanding of the time commitment. CEE and CAPI staff collaborated to contact participants who had completed the registration process and passed the eligibility screening but had been put into the waitlist. Those five participants from the waitlist were invited to attend the first day of the program.

From that initial 15 trainees, 3 exited the program before the five weeks ended due to a variety of factors. Two of the trainees were released from the program due to their attendance. Housing instability, a lack of access to reliable, efficient transportation, chemical dependency, and long periods of unemployment due to incarceration all played factors in these trainees’ ability to successfully participate in a workforce program of this commitment level. The exit of these trainees provided valuable insight into how we can better screen applicants in the future. In the future, we plan to use an employability measure in addition to questions related to their interest in the field to determine their readiness for this program. While this program was designed with wrap-around support services, it is vital that trainees are able to meet the basic requirements of attending training daily and communicating with staff and partnering agency case managers to address any obstacles to their career progression.

Employer Engagement

Energy auditor employers and insulation contractors currently have many openings to fill and are eager to use this program to increase capacity. Sustainable Resources Center, a Low-Income Weatherization service provider in Minneapolis, has committed to hosting two energy

auditor interns in our first cohort. Two insulation contractors will host one insulation intern each for the first cohort. This commitment expands our capacity to host interns and keep participants connected to potential employers. Several employers have also committed to being guest speakers at the introductory training to meet participants and talk about the great jobs they have available.

Future Changes & Goals

In addition to needing more workers in these fields, we also need more insulation companies. In year two of the program, we plan to offer entrepreneurial training to past participants interested in starting a contracting company. With relatively low fixed costs and the potential to start small, starting a home insulation company has a relatively low barrier to entry. CEE will partner with organizations that support women and BIPOC entrepreneurs such as Black Women's Wealth Alliance and Northside Economic Opportunity Network. Tailoring specific entrepreneurial training, alongside trusted Twin Cities organizations that are leaders in entrepreneurship for communities of color and women, will allow a greater number of participants to go on and launch their own independent small businesses.

Additionally, in coming years, the program will expand to include an HVAC internship track. Xcel Energy and CEE hope to expand and strengthen the relationships that we have already built with community-based nonprofit organizations as well as forge new partnerships with local community colleges that have well-established HVAC programs, such as Dunwoody Technical College and Minneapolis College. Dunwoody has a strong history of inclusion for women entering technical careers through their Women in Technical Careers program. In that program, Dunwoody provides a scholarship of up to \$10,000 per year for two years to a cohort of 50 women annually, offering weekly peer support meetings and one-on-one mentorship with program alumni.

Along with establishing partnerships with local technical colleges, Xcel Energy will connect participants with scholarship funds to support income-qualified participants pursuing education at two-year and four-year institutions. As more advanced technologies in HVAC require further education and training, these scholarships will help support participants who decide to pursue further education.

Lastly, Xcel Energy and CEE plan to identify state and national resources focused on workforce development in energy efficiency. The Building Performance Association and U.S. Department of Energy have established robust opportunities for both industry employers and nonprofit training providers to advance workforce development efforts in energy efficiency, such as stackable credential badges, career advancement resources, and funding.

This program is a foundational step toward establishing a true workforce development model focused on providing access to clean energy careers with family sustaining wages for under-represented workers in Minnesota. The program team plans to expand the program to more locations and look for ways to partner with other utilities and funders to meet the needs of the industry and truly achieve scale. Without this kind of effort to intentionally bring new people into energy efficiency jobs, we will continue to face challenges in meeting the climate goals set by cities, states, and the federal government.

References

- Building Performance Association (BPA). 2021. *Summary of Workforce Development Needs Assessments Findings and Next Steps*. Pittsburgh, PA: BPA. www.building-performance.org/sites/default/files/Summary%20of%20Workforce%20Development%20Needs%20Assessment%20Findings%20and%20Next%20Steps_final.pdf
- Clean Energy Economy Minnesota (CEEM). 2021. Clean Energy Jobs Midwest Report. Minneapolis, MN: CEEM. [Clean Jobs Midwest - 2021 \(cleanenergyeconomymn.org\)](http://cleanenergyeconomymn.org)
- E2 and E4TheFuture. 2019. *Energy Efficiency Jobs in America*. www.e2.org/wp-content/uploads/2019/09/Energy-Efficiency-Jobs-in-America-2019-Full-Report.pdf
- Foshay, E. and Steigauf, B. 2019. *Minnesota Energy Efficiency Workforce Gap Analysis*. Minneapolis, MN: Center for Energy and Environment (CEE). www.mncee.org/minnesota-energy-efficiency-workforce-gap-analysis
- Kumar, K. 2020. “Minnesota hits end of \$300 weekly jobless bonus; jobs recovery sped up last month.” *Star Tribune*, September 17. www.startribune.com/minnesota-hits-end-of-300-weekly-jobless-bonus-jobs-recovery-spaced-up-last-month/572441222/.
- Pacific Community Ventures. 2016. *Moving Beyond Job Creation: Defining and Measuring High Quality Jobs*. https://www.pacificcommunityventures.org/wp-content/uploads/sites/6/2016/04/Quality-Jobs_Moving-Beyond-Job-Creation.pdf