



# MINNESOTA ENERGY EFFICIENCY WORKFORCE GAP ANALYSIS

An assessment of gaps and opportunities to ensure access  
to high-quality energy efficiency jobs for all Minnesotans



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Center for Energy and Environment

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McKNIGHT FOUNDATION

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# Introduction and Background

**Minnesota has a strong clean energy economy**, in part because of state policy commitments to reduce energy use and greenhouse gas emissions. The energy efficiency industry is an important component of Minnesota's clean energy economy, representing nearly 45,000 jobs and more than 75 percent of total clean energy employment in the state.<sup>1</sup> Maintaining the strength of this economic sector requires more than an enduring policy framework. It also requires a consistent, high-quality workforce pipeline.

In Minnesota, challenges like a general workforce shortage and the anticipated 'silver tsunami' of retirements in many trades threaten the clean energy economy's ability to maintain or accelerate growth. At the same time, these challenges present opportunities to create accessible career pathways for disadvantaged populations that are often left out of economic prosperity. Additionally, evolving technologies bring changes to the skills required to work in clean energy jobs. To feed the workforce pipeline and better serve a more diverse labor pool, training programs and employers will need to adapt both curriculum and training models.

This is a critical moment of opportunity for clean energy advocates. The American Recovery and Reinvestment Act of 2009 was a major investment in accelerating the clean energy economy and growing green jobs, but there has been little tracking of the workforce system feeding these jobs. Over the past two years, clean energy and green jobs have come under threat nationally, leaving it to forward-thinking states like Minnesota to continue the momentum. To maintain existing clean energy career pathways and build new ones, we need to better understand the current employment landscape in the energy efficiency sector and how these jobs are changing in response to new technologies. At the same time, we must build on and learn from the American Recovery and Reinvestment Act's successes and lessons to improve equity by creating a more accessible and diverse workforce pipeline.

To identify challenges and opportunities, the Center for Energy and Environment (CEE) assessed the current workforce landscape in the energy efficiency sector. Through a series of interviews with employers, construction trades training programs, and workforce development professionals, this effort identified some of the most persistent gaps in the workforce pipeline, as well as opportunities to address those gaps while ensuring access to quality jobs for all Minnesotans, particularly disadvantaged workers.



**Ensure energy efficiency jobs are quality jobs.**

**Strategy:** To attract and retain a workforce with the skills required to attain energy goals, energy efficiency jobs should pay good wages, provide benefits, and offer lifelong training and career pathway opportunities to workers at all levels.

<sup>1</sup> Clean Jobs Midwest – Minnesota Executive Summary (Clean Energy Trust, 2018). [www.cleanjobsmidwest.com](http://www.cleanjobsmidwest.com)

## Defining Energy Efficiency Jobs

The US Department of Energy defines energy efficiency employment as both production of energy-saving products and provision of services that reduce end-use consumption.<sup>2</sup> The most recent US Energy and Employment Report noted sustained growth of energy efficiency jobs across the United States, including a 3 percent increase from 2016 to 2017. In Minnesota, the number of clean energy jobs in general — including energy efficiency jobs — has grown at twice the rate of all other jobs in the state.<sup>3</sup>

According to the US Energy and Employment Report, 57 percent of the more than two million jobs in the energy efficiency sector in 2017 were in the construction industry.<sup>4</sup> These skilled trades workers are primarily responsible for installing, testing, calibrating, and repairing energy efficient equipment.

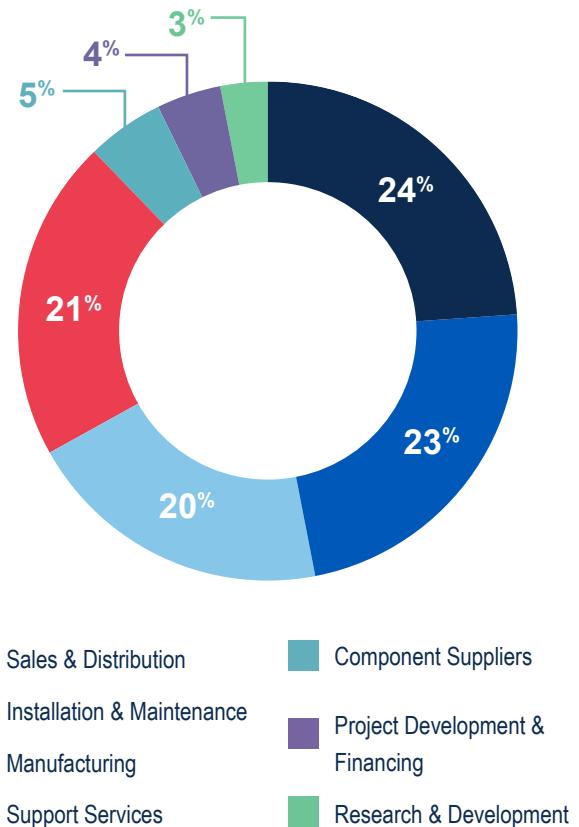
A 2014 study by the Minnesota Department of Employment and Economic Development (DEED) looked at workers in Minnesota who spend at least half of their time doing energy efficiency work.<sup>5</sup> The study found that these workers were evenly divided among manufacturing, sales, installation, and support services (Figure 1).<sup>6</sup>

Heating, ventilation, and air conditioning (HVAC) efficiency accounts for the largest proportion of energy efficiency jobs in Minnesota, followed by manufacturing and installation of efficient lighting and appliances.<sup>7</sup> As Minnesota homeowners and businesses continue to invest in improving energy efficiency, this could mean substantial job growth for HVAC and refrigeration technicians, as well as electricians and plumbers.

## Minnesota's Current Energy Efficiency Workforce Pipeline

While some members of the energy efficiency workforce may have chosen to study sustainability or a related field, most individuals do not land there deliberately. While some employers perform exclusively energy efficiency work, most offer efficiency as a part of a broader menu of services. The amount of time a worker spends manufacturing, selling, or installing efficient equipment depends on customer demand. Efficiency policies have helped increase that demand, so many workers in traditional fields, especially those in the building and construction trades, are finding themselves spending more time on energy efficiency. For example, employees at energy efficient construction

Figure 1: Minnesota Energy Efficiency Employment by Value Chain (2014)



2 US Energy and Employment Report (Energy Futures Initiative & National Association of State Energy Officials, 2018)

3 Clean Jobs Midwest – Minnesota Executive Summary (Clean Energy Trust, 2018).

4 US Energy and Employment Report (Energy Futures Initiative & National Association of State Energy Officials, 2018) and Clean Jobs Midwest – Minnesota Executive Summary (Clean Energy Trust, 2018).

5 Minnesota Clean Energy Economy Profile, 2014. Minnesota Department of Employment and Economic Development. Available at: <https://mn.gov/commerce-stat/pdfs/mn-clean-energy-econ-full-rpt.pdf>

6 Minnesota Clean Energy Economy Profile, 2014. Minnesota Department of Employment and Economic Development. Available at: <https://mn.gov/commerce-stat/pdfs/mn-clean-energy-econ-full-rpt.pdf>

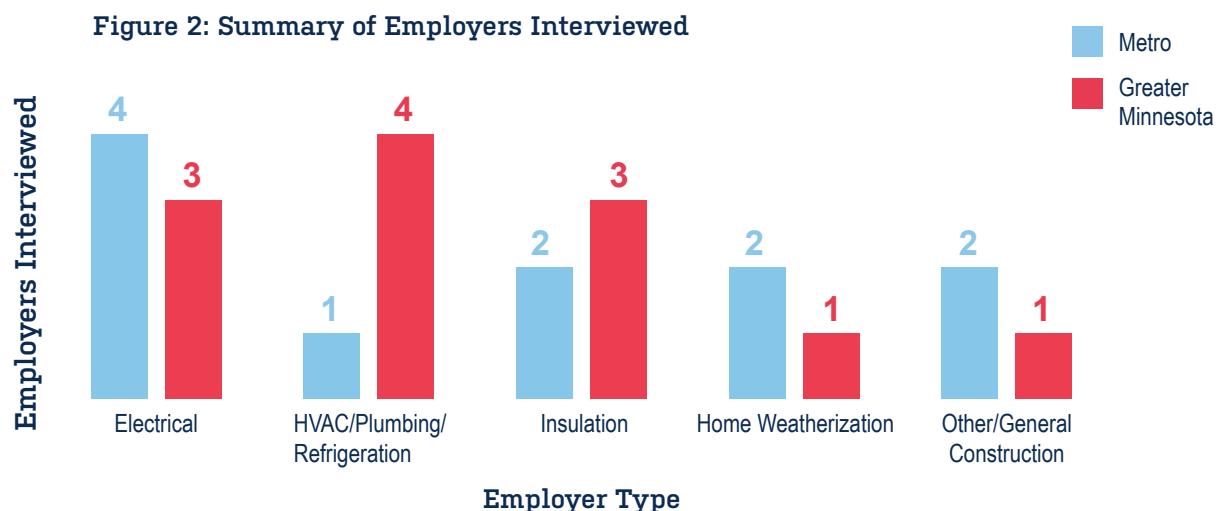
7 Clean Jobs Midwest – Minnesota Executive Summary (Clean Energy Trust, 2018).

firms that spend at least 50 percent of their time on efficiency-related work has risen from 74.0 percent in 2016 to 80.3 percent in 2017.<sup>8</sup>

Those entering into skilled construction trades occupations generally take one of two paths. One possible path is to earn a two-year degree through a community or technical college. Another path is a union apprenticeship. Though 32 percent of all construction workers in Minnesota are union members, the number drops to 11 percent for workers in the energy efficiency industry.<sup>9</sup> For members, unions provide guaranteed living wages and benefits, as well as an established training infrastructure that uses a combination of classroom and hands-on instruction. Some construction trades workers get their start through a pre-apprenticeship or another short-term training program that teaches enough entry-level skills to begin working in the field. For these workers, further career advancement requires a combination of on-the-job training and continued education through a degree or apprenticeship pathway. Energy efficient equipment manufacturing jobs range from those that require little prior training or experience to those that require a two-year technical degree or an apprenticeship. Most other jobs in the energy efficiency sector require a four-year college or graduate-level degree.

## Methodology Overview

In addition to reviewing literature and existing data on energy efficiency employment, CEE staff conducted 36 interviews for this project. Interviewees included 23 employers, six training programs, and seven workforce system representatives. Employers were split evenly by location — those based in the Twin Cities metro area and those in Greater Minnesota — and represented a range of both commercial and residential energy efficiency services (Figure 2). Only five of the employers interviewed were signatory to one or more unions. Interviewers spoke to one union apprenticeship and one pre-apprenticeship program — further research should include more union employers and apprenticeship programs from around the state to gain broader perspective on the differences between union and non-union employers and workforce pathways.



8 US Energy and Employment Report (Energy Futures Initiative & National Association of State Energy Officials, 2018)

9 Union Membership (Minnesota Department of Employment and Economic Development, 2017).

Available at: <https://mn.gov/deed/data/data-tools/compare-mn/labor/union.jsp>; Clean Jobs Midwest (Clean Energy Trust, 2018).

Interviewers asked questions about current workforce composition, anticipated job openings, challenges related to attracting and retaining workers, technical and soft skill requirements, and perceptions of trends affecting employers and the industry as a whole. Interviewers also asked employers about any existing partnerships or collaborations with their local workforce development board, community or technical college, or training providers. All employers interviewed anticipated hiring in the next 12 months for a mix of entry-level and higher-skilled positions.

## Trends, Gaps, and Opportunities

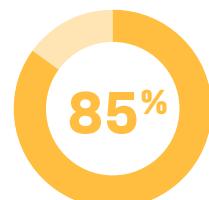
### Workforce Shortage and the “Silver Tsunami”

One major trend in the interviews was discussion of the construction trade’s aging workforce, which almost all of the interviewees named as a threat to future of the industry. “We have more retirements than incoming applicants,” one interviewee said. “It’s hard to find young people interested in the [automation] field.” The National Center for Construction Education and Research estimates that 29 percent of skilled construction workers will retire by 2026 and 41 percent will have retired by 2031.<sup>10</sup> At the same time, young people are not entering the trades at the same rate, and many stakeholders in the industry are aware of the potential for a huge loss of knowledge and expertise. Around Minnesota, there are several initiatives targeting high school students with the goal of inspiring interest both in the construction trades and Science, Technology, Engineering, and Math (STEM) careers. Young people are often concerned about climate change and interested in technology — building a stronger connection to clean energy in the trades and STEM careers could make them more attractive to young people.

Another trend cited by about 85 percent of energy efficiency employers, including those interviewed for this study, is difficulty finding qualified workers for available jobs.<sup>11</sup> Industries across the state are being impacted by the workforce shortage, and energy efficiency is no exception. This is particularly prevalent in Greater Minnesota, where more than half of counties lost population in 2017.<sup>12</sup> The inability to fill job vacancies could threaten contractors’ ability to meet demand as utility efficiency programs expand across the state. At the same time, many Greater Minnesota efficiency employers stated in the interviews that they did not anticipate hiring in the near future — although this is partially because interviewees were mostly family-operated small businesses that weren’t pursuing capacity expansion.



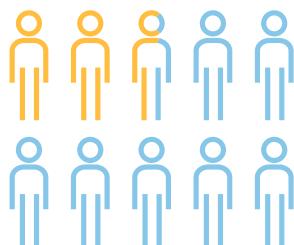
**Problem:**



85 percent of energy efficiency employers reported difficulty hiring in

**2018**

and it is estimated that



29 percent of the existing workforce will retire by **2026**.

**Strategies:**

- Engage youth and adults in pursuing careers in the building and construction trades.
- Build stronger connections between construction and environmental careers.

10 *The End of an Era: The Dawn of Digital* (National Center for Construction Education and Research (NCEER), 2017).

11 *Clean Jobs Midwest – Minnesota Executive Summary* (Clean Energy Trust, 2018).

12 *PopFinder for Minnesota, Counties, & Regions* (Minnesota State Demographic Center, 2018)

Retention of skilled employees is also a challenge. A strong economy provides more opportunities to seek out higher wages or better benefits. Several employers mentioned some of their best employees being “poached” by competitors. Persistent barriers like the lack of affordable housing, access to transportation, and available childcare — particularly in Greater Minnesota — make both attracting and retaining employees difficult. The state’s workforce development representatives are aware of these issues, and are helping employers take innovative steps to attract and retain skilled workers.

## Diversity in the Energy Efficiency Workforce

Minnesota faces a worker shortage, and yet, the industry as a whole is accessible to only a fraction of the population. Diversity is a concern in all industries in Minnesota. While the workforce is becoming more diverse overall, employers are failing to proactively attract and retain diverse workers. Between 2010 and 2014, the state added four times as many people of color as non-Hispanic white residents, and younger Minnesotans are more diverse than older Minnesotans.<sup>13</sup> In spite of that, people of color continue to be left out of economic opportunity. While unemployment has decreased steadily since its peak [in 2008] during the recession, unemployment among black and Hispanic Minnesotans (5.6 and 5.3 percent respectively) remains double that of whites (2.6 percent).<sup>14</sup> The energy efficiency industry is even less diverse than the overall state workforce, lacking both gender and racial diversity. Women represented less than a third (23 percent) of the energy efficiency workforce in 2017, and people of color represented an even smaller fraction.<sup>15</sup>

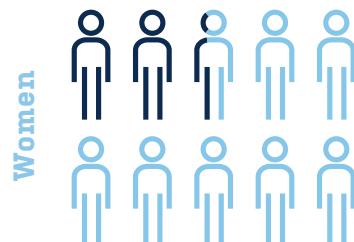
Equity, diversity, and inclusion are top priorities for Minnesota’s workforce system, and many employers around the state are engaging in conversations about how to change their practices to address implicit bias in hiring, supervision, and promotion. However, some employers struggle to make these changes. Small employers in particular are less likely to consider the benefits of diversifying their workforce, despite research highlighting the benefits of diversity on innovation.<sup>16</sup> A survey of employers completed by DEED found that only 20 to 30 percent of employers with less than 50 employees were actively seeking to diversify management and entry-level positions.<sup>17</sup>

To remain competitive, employers must examine how they recruit, hire, train, and retain employees, find opportunities to remove bias, and create a work environment that supports gender equity and racial/ethnic diversity. In 2018, Minnesota’s northeast regional workforce partners hosted a series of forums for employers focused on recruitment, hiring, and retention with specific improvement strategies in each area. Some of these strategies include: (a) updating job descriptions to ensure



### Problem:

Women and people of color are underrepresented in the energy efficiency workforce.



### Strategies:

- Engage employers in taking action to attract, hire, and retain a more diverse workforce.
- Build and strengthen support systems for women and people of color working in the construction and energy efficiency industries.

13 *Age, Race, & Ethnicity* (Minnesota State Demographic Center, 2018)

14 *Alternative Measures of Unemployment* (Minnesota Department of Employment and Economic Development, 2018). Available at: <https://mn.gov/deed/data/current-econ-highlights/alternative-unemployment.jsp>

15 *US Energy and Employment Report* (Energy Futures Initiative & National Association of State Energy Officials, 2018)

16 *How Diversity Can Drive Innovation* (Harvard Business Review, December 2013) and *How Diversity Makes Us Smarter* (Scientific American, Oct. 1 2014)

17 Bendewald, E. and Godfrey, Scott. *Workforce Diversity in Minnesota* (Minnesota Economic Trends, March 2017)

that minimum qualifications are required and not merely preferred, (b) paying for employees' professional development, (c) providing diversity training to all employees, (d) participating in hiring events specifically for people of color, (d) supporting a mentorship program, (e) communicating a commitment to diversity, (f) and establishing explicit goals to use women- and minority-owned suppliers.<sup>18</sup> Equitable hiring practices require strong local partnerships with organizations and individuals rooted in historically excluded communities. Many of the workforce representatives interviewed in this study shared experiences of working with employers to heal negative reputations in the community — including perceptions held by communities of color — as a first step toward attracting a more diverse applicant pool.

Unions offer high-quality career tracks, and their registered apprenticeship model is a great example of a workforce pipeline that has passed the test of time. Unions recruit apprentices through their hiring halls to control their class sizes because they rely on incumbent worker expertise to train entry-level apprentices. With this level of control already being exerted over the labor pool, unions need to actively recruit women and people of color for apprenticeships, as well as work to make sure that graduated apprentices are given fair and equal treatment on the job. In the Twin Cities, Summit Academy's Women Wear Hard Hats is an example of a program focused on retaining female students pursuing careers in construction trades. The program hosts biweekly "lunch-and-learns" for women on jobsite culture, working in a male-dominated field, tricks of the trade, financial education, healthy parenting, and more. A key component of the program is providing networking opportunities to female students with tradeswomen in their prospective fields and helping them find well-paid construction jobs.

State and local governments can lead by example through equitable procurement practices. Many public entities turn to energy efficiency to reduce operating costs in their facilities and demonstrate fiduciary and environmental responsibility to residents. In conjunction with these efforts, public entities can design procurement processes that give preference to local energy efficiency contractors and women- and minority-owned businesses to retrofit their buildings. Additionally, public entities can establish hiring targets to increase diversity within the workforce. For example, the City of Duluth added ordinance language supporting women and disadvantaged workers to its business subsidy criteria and to the Project Labor Agreement for city-funded projects above a certain investment threshold.<sup>19</sup> The City of New Orleans made a goal of awarding 35 percent of city-funded projects to companies certified as disadvantaged business enterprises. Entergy New Orleans, the local utility, also worked with an implementation team of over 50 percent minority-owned, women-owned, and disadvantaged businesses as delivery partners for their cross-sector efficiency incentive program, Energy Smart.<sup>20</sup>



### Local Governments can Lead by Example

#### Strategies:

- Local governments can ensure energy efficiency investments generate community benefits by adopting targeted workforce goals and procurement policies.
- Local energy policies should include workforce projections and strategies to ensure both environmental and employment goals can be achieved.

18 Bendewald, E. and Godfrey, Scott. *Workforce Diversity in Minnesota* (Minnesota Economic Trends, March 2017)

19 The Duluth City Code 18-038-O § 2-25, 2-26, & 2-29, 1959.

20 Ribeiro, D. and Mary Schoemaker. *Through the Local Lens: Developing the Energy Efficiency Workforce*. (American Council for an Energy Efficient Economy 2018)

## Improving Collaboration with Minnesota's Public Workforce System

Minnesota's public workforce system provides a variety of services to both employers and jobseekers. The system is designed to respond to certainty in employment demand. When employers indicate that they plan to hire, the workforce system helps design strategies to meet their immediate and long-term hiring needs. This includes developing recruitment plans, identifying training resources, and connecting jobseekers to training and job opportunities.

It can be challenging for the public workforce system to respond to clean energy policies, particularly when the timeline for clean energy policy goals is sometimes 30 or more years and the workforce impact projections are vague. According to one workforce representative, "Energy efficiency career pathways are not on our radar right now." Indeed, despite their importance to the state's economy, clean energy jobs are only mentioned in one of the state's regional workforce area plans.<sup>21</sup> As local governments develop clean energy policies, there should be a deliberate effort made to project employment impacts and resulting training needs. This would allow regional and local workforce development boards to fortify the workforce pipeline to meet demand. With input from employers and industry experts, the public workforce system could also help existing training programs to integrate new technologies and skills into curriculum so that the future workforce has the necessary expertise to achieve state and local governments' energy goals.

There is a variety of resources available through the state workforce development system to help employers train both new and incumbent workers. However, in most cases these programs are better suited to large employers who have the capacity to design and host trainings. Around 80 percent of construction employers in Minnesota are small businesses with fewer than 25 employees.<sup>22</sup> Few of the small- and mid-size energy efficiency employers interviewed had ever engaged with their local workforce system representatives, despite having persistently unmet hiring needs. Small employers, particularly those who are short-staffed because they are struggling to hire, don't have the time or ability to participate in workforce planning conversations.

Interviews with local and regional workforce strategists indicate that there are successful cases in which a group of small businesses collectively approached the workforce system with overlapping hiring needs. "We started with the employers and then backed it up," one interviewee said. "We took a like-group of [welding] employers and were able to fund a customized training program to give students the basic skills they needed to be hired." When small employers combine their efforts, the workforce system is better able to support them in developing effective recruitment and training pathways. Knowing that small and mid-size employers are too short-staffed to collectively organize, a trusted third party (e.g., a nonprofit, local chamber, etc.) may be needed to represent their interests and coordinate workforce strategy design and implementation.



### Fact:



**80** percent of construction employers in Minnesota are small businesses with fewer than **25** employees.

### Strategies:

- Connect more energy efficiency employers with the resources and assistance available through Minnesota's public workforce system.
- Engage small- and medium-size employers in addressing their collective workforce needs and challenges through collaborative partnerships.

<sup>21</sup> Southeast Regional Development Area 6 – Attachment F: Winona Local Workforce Development Area #18, Minnesota's Workforce Development System under WIOA Program Years 2016 & 2017, Minnesota Department of Employment and Economic Development.

<sup>22</sup> Energy Efficiency Jobs in America: 2.25 Million Americans Work in Energy Efficiency. (E2 & E4TheFuture, 2018).

One solution is to identify an intermediary that understands the energy efficiency industry and can represent employers in conversations to develop curriculum and identify resources to support training.

## Alternative Training Models

As the workforce shortage makes hiring needs more urgent, and training programs fail to keep up with changes in required skills, employers are bearing more of the burden of training their employees. Indeed, skilled workers are in such high demand that some training programs report students being hired before completing their degrees. Several employers interviewed in this study reported that, regardless of new employees' previous technical training, few begin their jobs with the necessary skills. Though training programs engage employers to learn what skills they consider when hiring, one employer interviewed stated, "A lot of times we find that schools are just getting people through, but then they don't fully know how to be a carpenter or other trades." Several other employers made similar statements. However, union employers that were interviewed reported less difficulty finding qualified workers.

The apprenticeship training model offers a solution through which work and training are integrated, and students can immediately apply the skills they learn in the classroom. Students earn money as they receive a free education, and employers are directly engaged in training through a competency-based approach. Apprenticeship programs combine classroom learning with hands-on experience, and employers are involved in developing and updating curriculum. There are well-established pathways into apprenticeship, and ongoing opportunities to add and upgrade skills.

The Minnesota Department of Labor and Industry is looking to create new apprenticeship programs in fields that have not previously used the "earn-as-you-learn" training structure. This strategy helps overcome the barriers of tuition costs and necessary time off work. As one large employer put it, "It's getting harder to get people to learn on their own time." One possibility is to create apprenticeship pathways to non-union jobs in the energy efficiency industry that are currently struggling to hire qualified workers. Another possibility is to create more pre-apprenticeship pathways to building and construction trades to maintain a steady pipeline of new entrants as more workers retire in the next decade.

Another training model, offered through community and technical colleges, involves breaking a degree program into a series of stackable credentials that can be completed in a shorter amount of time than a typical degree. For example, in Los Angeles' Trade-Technical College's stackable certificate model, the first step is a "fundamentals" certificate that prepares students for entry-level positions. Coursework for this certificate focuses on math and industry-wide skills. The second step is a "core technical" certificate for students to learn job-specific skills. The third and final "stack" is an associate's degree, indicating that the graduate has advanced technical skills and is prepared for a career in their field. With participation from employers who recognize the value of each of the steps in the stackable certificate, this flexible model allows students to customize their academic experience



### Problem:



Student retention remains an issue in training programs, and emerging skills will need to be highlighted to achieve the energy savings of the future.

### Strategies:

- Implement effective training models like competency-based, stackable credentials and apprenticeships to build and expand a skilled energy efficiency workforce.
- Partner with researchers and equipment manufacturers to ensure the energy efficiency workforce stays up-to-date with new advances in techniques and technology.

and allows employers to assess jobseekers' skills and credentials at various standardized stages of training.

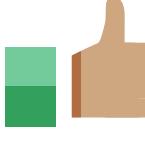
Energy efficient technology continues to advance and uncover new opportunities for deeper energy savings. For Minnesota to continue as a national leader in efficiency, training programs and technical colleges across the state must continue to work closely with employers to stay on top of industry trends and teach students skills and technologies for the future. Programs must incorporate the most state-of-the-art energy technologies into their curriculum. Examples of technologies that will see increasing demand include air source heat pumps, power over Ethernet, "smart building" technologies, and other whole-building and equipment-specific advancements. To enhance curriculum so that graduates enter the workforce with competitive and in-demand skills, training programs should work more closely with research institutions and technical experts to ensure skills of the future are brought into the classroom using hands-on experience as a preferred teaching method.

## **Conclusions and Recommendations**

As the state works to achieve its goal of reducing greenhouse gas emissions — 30 percent by 2025 and 80 percent by 2050 — and more cities adopt goals of their own, among these ambitions must be an equitable and accessible workforce pipeline prepared to implement energy projects. When considering decarbonization policies and strategies, public entities should engage with their local workforce development system representatives to discuss potential employment impact, emerging demand for new skills, and employer engagement strategies that will achieve their energy goals and create an equitable workforce pipeline alongside environmental policies.

Minnesota has a strong foundation of support for energy efficiency and a public workforce system that thinks strategically about how to connect jobseekers to rapidly growing sectors and opportunities. Clean energy advocates envision employment growth as utilities shift their fuel sourcing, grid demand response strategies, and energy conservation measures to meet the state's climate goals. Yet without more attention to the workforce challenges facing the energy sector, the state is less likely to achieve these goals. The state's energy transition will increase demand for skilled workers, particularly workers in the building and construction trades, to upgrade Minnesota's infrastructure in new and existing buildings. The public workforce system is a resource that can proactively address these issues, and there is an opportunity to build stronger partnerships between this system and among energy efficiency experts, advocates, and employers. With a clear direction, these partners can take action to help ensure Minnesota can achieve its energy goals.

# Recommended strategies to ensure access to high-quality energy efficiency jobs for all Minnesotans

	<b>Expand Workforce Pipelines into the Trades</b>	<ul style="list-style-type: none"><li>Engage youth and adults in pursuing careers in the building and construction trades.</li><li>Build stronger connections between construction and environmental careers.</li></ul>
	<b>Collaborate with the Public Workforce System</b>	<ul style="list-style-type: none"><li>Connect more energy efficiency employers with the resources and assistance available through Minnesota's public workforce system.</li><li>Engage small- and medium-size employers in addressing their collective workforce needs and challenges through collaborative partnerships.</li></ul>
	<b>Increase Diversity in Energy Efficiency</b>	<ul style="list-style-type: none"><li>Engage employers in taking action to attract, hire, and retain a more diverse workforce.</li><li>Build and strengthen support systems for women and people of color working in the construction and energy efficiency industries.</li></ul>
	<b>Local Governments Lead by Example</b>	<ul style="list-style-type: none"><li>Local governments can ensure energy efficiency investments generate community benefits by adopting targeted workforce goals and procurement policies.</li><li>Local energy policies should include workforce projections and strategies to ensure both environmental and employment goals can be achieved.</li></ul>
	<b>Utilize Effective Training Models</b>	<ul style="list-style-type: none"><li>Implement effective training models like competency-based, stackable credentials and apprenticeships to build and expand a skilled energy efficiency workforce.</li><li>Partner with researchers and equipment manufacturers to ensure the energy efficiency workforce stays up-to-date with new advances in techniques and technology.</li></ul>
	<b>Ensure Energy Efficiency Jobs are High-Quality Jobs</b>	<ul style="list-style-type: none"><li>To attract and retain a workforce with the skills required to attain energy goals, energy efficiency jobs should pay good wages, provide benefits, and offer lifelong training and career pathway opportunities to workers at all levels.</li></ul>