



# **EMPOWERING TRADE ALLIES FOR BUILDING EFFICIENCY AND ELECTRIFICATION RESEARCH PROJECT**

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**STUDY CONDUCTED BY: MIDWEST RENEWABLE ENERGY ASSOCIATION**



## **ACKNOWLEDGEMENTS**

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For more information on this research project, contact [futurefocus@focusonenergy.com](mailto:futurefocus@focusonenergy.com).

## **FUTURE FOCUS**

Future Focus reviews new program ideas, measures, and delivery methods and tests new participation opportunities for future expansion and inclusion in the Focus on Energy program portfolio. The initiative supports energy efficiency and renewable energy research and reviews new and emerging energy efficient technologies. This report is supported through the Environmental & Economic Research and Development Program.

## KEY DEFINITIONS

Advisory Boards: Groups of industry professionals who provide guidance and expertise to ensure that training programs align with current industry needs.

Associated Builders and Contractors (ABC): National trade association representing non-union construction businesses and sponsoring apprenticeship programs in the construction trades.

Building Performance Institute (BPI): Organization that provides certification programs & professional training for energy efficiency & safety standards in residential and commercial buildings.

ENERGY STAR®: National program that promotes energy efficiency by identifying and certifying products, buildings, & industrial facilities that meet efficiency standards.

EPA 601 and 608: Certifications granted by the Environmental Protection Agency that ensure competence in the safe handling of refrigeration and air conditioning systems.

Home Efficiency Rebates (HOMES): IRA-funded program that offers incentives for energy-saving upgrades in single-family and multifamily buildings, including insulation and efficient heating and cooling equipment, with potential for higher rebates for low-to moderate income households.

Home Electrification and Appliance Rebates (HEAR): IRA-funded program that provides discounts for households installing heat pumps and other efficient electric equipment, targeting residents in single-family homes and multifamily buildings earning 150% of Area Median Income (AMI) or less.

Inflation Reduction Act (IRA): Federal legislation that will allocate \$150 million for home energy rebate programs to incentivize energy-saving upgrades and electrification initiatives in residential buildings in the State of Wisconsin.

International Brotherhood of Electrical Workers (IBEW): Labor union that sponsors electrical apprenticeship programs and advocates for fair wages, safe working conditions, and professional standards within the electrical trade.

North American Technician Excellence (NATE): Organization that certifies HVAC technicians to uphold industry standards and ensure competency in HVAC services.

OSHA: The Occupational Safety and Health Administration's training program that provides essential safety training for workers in various industries, including the trades.

Residential Energy Services Network (RESNET): Organization that offers certification programs, training, and standards development for residential building energy efficiency.

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## **EXECUTIVE SUMMARY**

The Midwest Renewable Energy Association (MREA) was contracted by FOCUS ON ENERGY® to conduct research to define the workforce development needs of Focus on Energy Trade Allies delivering building energy efficiency and electrification products and services and the training capacity available to assist them. This report outlines the background, methodology, findings of the study, and conclusions drawn. The report is intended to provide insights into workforce needs and training program capacities in Wisconsin.

To achieve the goals of the Focus on Energy program, Trade Allies need a recruitment and training strategy that increases their capability to deliver energy efficient products and services. This requires leveraging training capacity across the technical college system, the trades, and independent training programs. The research identifies workforce needs and training program capacity in Wisconsin by interviewing Trade Allies, independent training programs, technical college training programs, apprenticeship sponsors, as well as related workforce development programs. The results of the research highlight the training, hiring, and business development support needed by Trade Allies.

The outcomes of this research are presented in this report and contain recommendations for optimizing workforce development and training funding to support building electrification and energy efficiency upgrades for utility customers across the state.

## **BACKGROUND/ INTRODUCTION**

Trade Allies partner with Focus on Energy to deliver energy efficiency and renewable energy products and expertise directly to Wisconsin residents and businesses. Trade Allies are critical to translating state and federal funds available for building electrification and energy efficiency incentives into upgrades that provide advantageous and durable benefits to Wisconsin homeowners. In understanding the needs of these key contributors, along with related training providers, this research summarizes their perspectives, interests, and expressed needs. The perspectives support recommendations to maximize the impact of home energy efficiency and workforce investments.

Wisconsin is preparing for \$150 million of home energy rebate funding as part of the Inflation Reduction Act (IRA), which will specifically fund two incentive programs: 1) Home Efficiency Rebates (HOMES), and 2) Home Electrification and Appliance Rebates (HEAR). The programs will provide consumer rebates to enable households to implement cost saving electrification and energy efficiency upgrades. To best prepare for increased market activity expected from the programs, Focus on Energy is researching the best ways to support the

workforce development needs of Trade Allies providing HVAC, plumbing, electrical, residential construction/remodeling, weatherization, and energy auditing services.

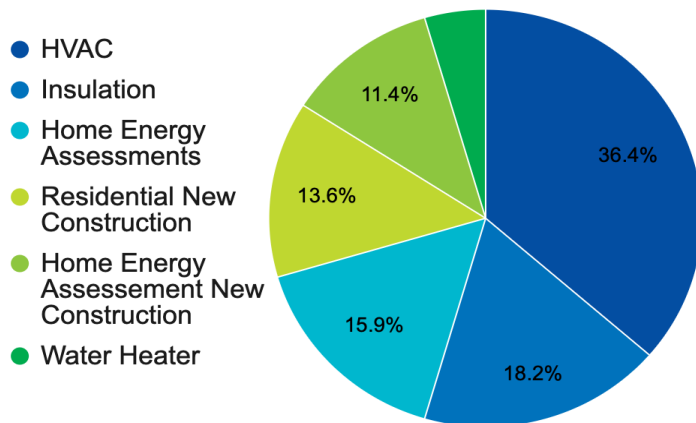
## **RESEARCH METHODOLOGY**

The research used virtual and in-person interviews to identify priority workforce needs and training program investments and strategies to effectively scale energy efficiency and electrification initiatives. Interviews were conducted with forty Trade Allies providing building energy efficiency, energy management, energy auditing, insulation and air-sealing services, and HVAC services to define immediate and expected recruitment, hiring, and training needs. Interviews were conducted with ten stakeholders representing relevant training and apprenticeship programs that support building efficiency and electrification workforce capacity with specific attention to gaps in service to high unemployment census tracts. A full list of the interview questions is included in the appendix of this report.

The research team hosted a stakeholder review session on report summaries and findings inviting all interview subjects, Focus on Energy staff, and other relevant stakeholders. During the session, the research solicited feedback on the outcomes and recommendations drawn from the interviews. The meeting worked towards a consensus from the Trade Allies and training partners. Following the stakeholder review, the interim report was revised into the final report. This report summarizes the data collected from the interviews, feedback from the stakeholder review, and makes recommendations based on all the conclusions drawn.

This report will first present and summarize the findings from forty Trade Ally interviews as well as ten training provider interviews conducted between January and March of 2024. Among these interviews, seven were carried out in-person and the remaining forty-three were carried out virtually. Focus on Energy categorizes Trade Allies into distinct groups based on their areas of specialization. The Trade Ally categories in this study include HVAC, Insulation, Home Energy Assessment, Residential New Construction, Home Energy Assessment New Construction, and Water Heater. Additionally, the research team interviewed eight Wisconsin technical colleges, one builders' association and one independent training program.

Figure 1: Categories of Trade Allies Interviewed



## TRADE ALLY RESEARCH

The following sections present a detailed analysis of key findings from the forty Trade Ally interviews. It begins with an exploration of Trade Ally challenges and opportunities, followed by recruitment trends, training trends, and qualifications. The subsequent sections delve into partnerships and conclude with the suggestions presented by Trade Allies.

## TRADE ALLY RESEARCH FINDINGS

### Topic 1. Trade Ally Challenges and Opportunities

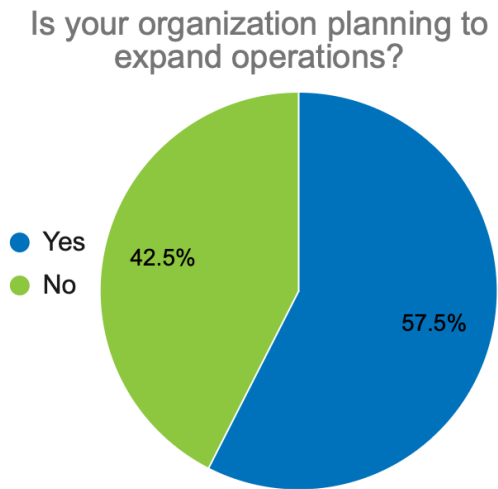
When asked about market opportunities, the Inflation Reduction Act (IRA) emerged as a significant catalyst, with expectations of industry-wide shifts towards electrification and increased demand for high-efficiency products. Participants noted untapped potential in equipment monitoring and a growing market in HVAC, heat pumps, and resilience-related projects. Rebates in the IRA were frequently identified as a catalyst for business growth. Optimism was expressed about the IRA's impact on affordability for customers. Trade Allies expressed a positive outlook on the market, stating that they see opportunities for growth and expansion on affordable housing, multi-family projects, heat pumps, and the ability to expand their services to fit the growing market.

Trade Allies also voiced various challenges in the current market landscape. A recurring theme was the difficulty in finding and retaining qualified workers, exacerbated by broader economic conditions and the potential impact of a recession on customer spending. Trade Allies were frustrated with the scarcity of licensed and qualified candidates, many stating that they wanted to expand operations but were unable to. Additionally, they had concerns about misinformation surrounding specific products (such as heat pumps), a lack of clarity regarding qualifications

for customers to receive rebates, and delays in the release of rebate programs. Marketing, keeping up with changes to programs, and communicating changes to customers was noted as an ongoing challenge. Material availability was also highlighted as a challenge for business operations though most contractors have noted that shortages have significantly subsided.

There were also concerns about market volatility, driven by high inflation and interest rates, with some participants expressing that existing incentives might not be sufficient to attract customers. Trade Allies emphasized how high costs of financing, the cost of homeownership, and the increased up front cost of high-efficiency products present financial challenges for customers. However, the influx of business resulting from the IRA and new incentives were cited as a double-edged sword, posing challenges in handling increased workload and maintaining business stability after rebates expire. As these new rebates and incentives roll out, Trade Allies expect an increase in the number of new business competitors. Trade Allies expressed worry about the reputability of new contractors that develop services to leverage expanding federal and state incentives. Some Trade Allies stated that these businesses will likely be inexperienced, lack familiarity with the market, and will perform below-average work.

Figure 2. Organization Expansion



Despite the challenges, 58% of Trade Allies are looking to expand business operations. Provisions in the IRA and other state & federal policies were reported to influence these plans, with increased incentives playing a large role. A focus on heat pumps, electrification, and air quality were key areas for expansion. Among the 42% not planning for expansion, the majority stated that they simply liked the current size of their business. Others wanted to expand but were limited by difficulties finding qualified labor. Lastly, some respondents found the IRA to be too complex to navigate, hindering growth. Efforts to support these businesses included calls for more incentives, workforce development support, and accurate

information dispersal about the IRA.

**Topic 2. Trade Ally Recruitment Trends**

Over the past year, 78% of contractors have tried to hire new employees, and 57% of those contractors were successful in finding qualified candidates. Of the 43% that had not had success, more than half reported that they had hired, but could only find unqualified staff.

Those that had not tried to hire in the last year cited issues including a lack of experienced professionals, generational shifts in the workforce, and competition from larger companies.

Figure 3. Hiring History

Has your organization tried to hire new employees in the past year?

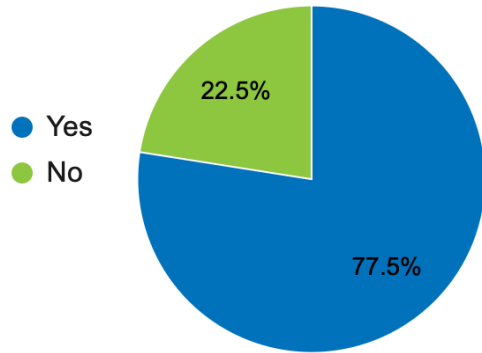


Figure 4: Success in Hiring

If yes, were you successful in finding a qualified candidate?

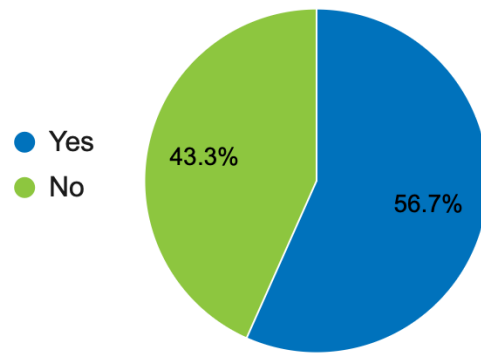
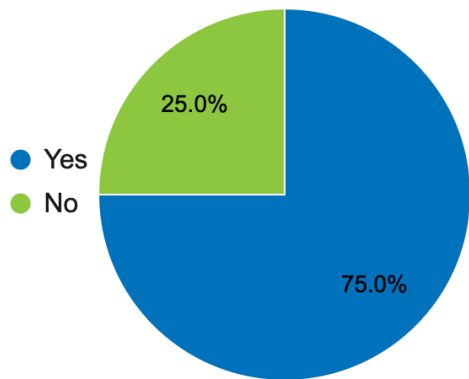


Figure 5. Future Hiring Plans

Are you planning to, or currently trying to hire additional staff?



Looking ahead, 75% of Trade Allies stated that they are currently trying to hire, or plan to hire additional staff in the near future. When asked what positions they are hiring for, the vast majority stated a need to hire more installers. Service technicians and other types of contractors were highlighted as being critical positions as well. Similarly, when asked what occupations are most in need for their business, Trade Allies stated that installation and service technician positions were most in need. Additionally, 100% of Trade Allies stated that they were looking for long-term employees who would work for three or more years.

Figure 6. Positions Being Hired

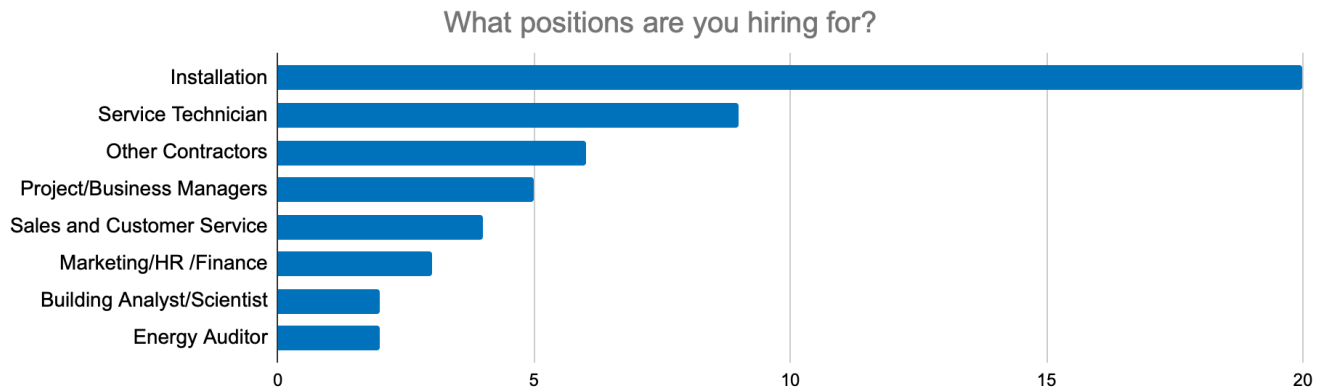


Figure 7. Occupations Most in Need

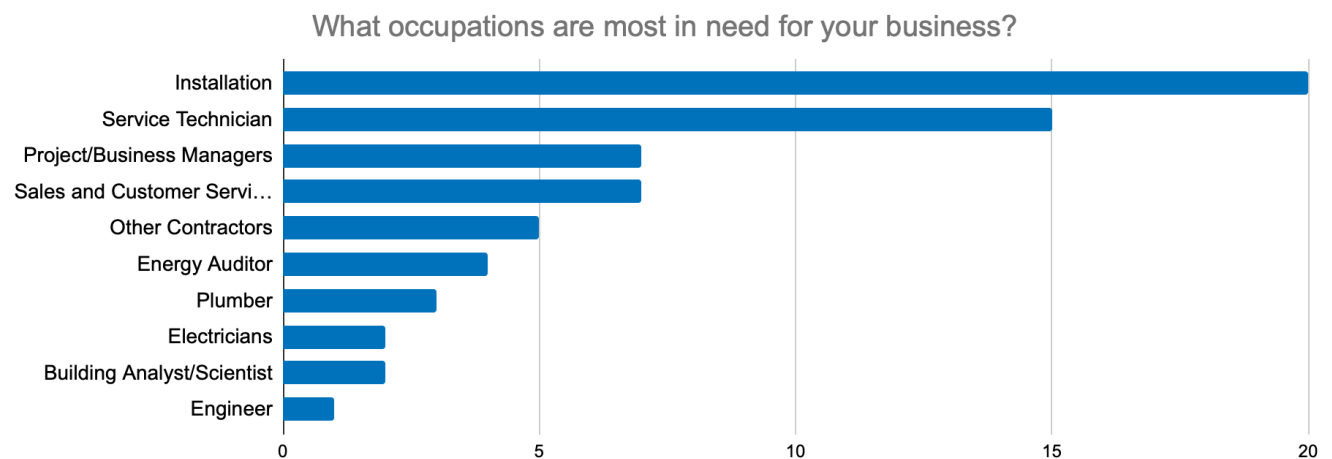
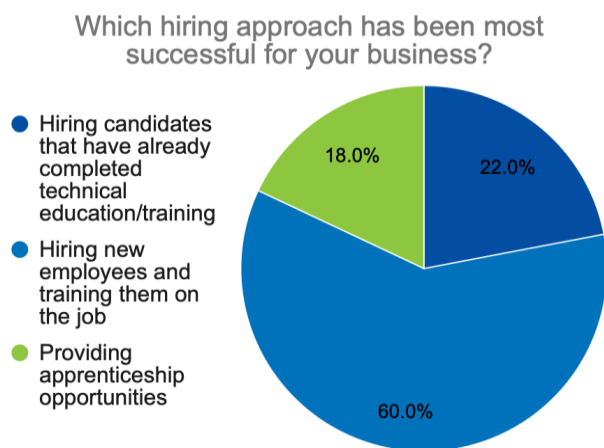
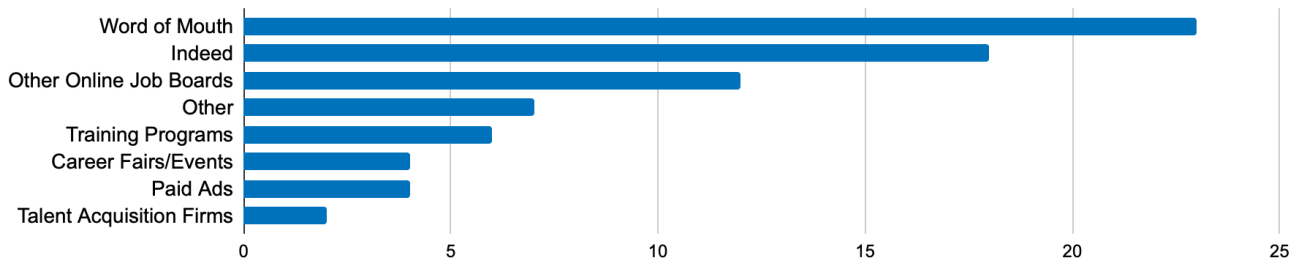


Figure 8. Hiring Approach for Success



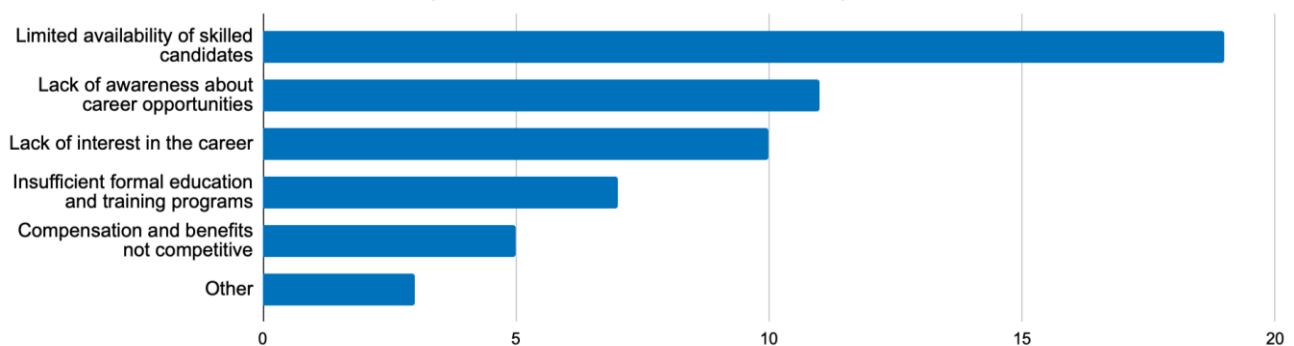
Trade Allies indicated a variety of strategies for acquiring talent. 60% of Trade Allies found success in hiring new employees and providing on-the-job training, emphasizing the value of in-house skill development. 22% had success in hiring candidates that had already completed technical education or training, and 18% reported success in providing apprenticeships. Word of mouth is the number one method used for recruiting potential candidates. Trade Allies also reported using online job boards, like Indeed, to target candidates.

Figure 9. Methods to Target Candidates



When examining the challenges in recruitment, participants identified the limited availability of skilled candidates as one of the largest hurdles, indicating a scarcity of qualified professionals in the candidate pool. Additionally, lack of awareness about career opportunities within the trades came up as a significant barrier. After the most common responses, some Trade Allies also mentioned insufficient formal education and training programs, as well as a lack of interest in the career, as additional factors that contributed to this difficulty in recruitment.

Figure 10. Factors Contributing to Difficulty in Recruitment



### Topic 3. Trade Ally Qualifications

Over half of Trade Allies said that they look for workforce experience as the primary qualification for hiring. Additionally, 38% of Trade Allies identified a new category and said that they look for someone with the right personality fit, prioritizing candidates that have positive attitudes and are hard working. This qualification was more sought-after than a professional credential or a college/technical college degree. Professional credentials like EnergyStar, BPI, RESNET, and EPA refrigerant certifications were mentioned to be of some importance as well. The most critical attributes sought by employers include strong people skills, commitment to learning, and a genuine interest in the career. Effective communication and resourcefulness are highly prized, along with a positive attitude, self-motivation, and a strong work ethic. Technical abilities, such as software capabilities, tool use, and safety were also mentioned as

being important. The ability to think critically, problem-solve, and navigate upcoming technologies and policies are additional qualities valued by employers.

Figure 11. Primary Hiring Qualifications

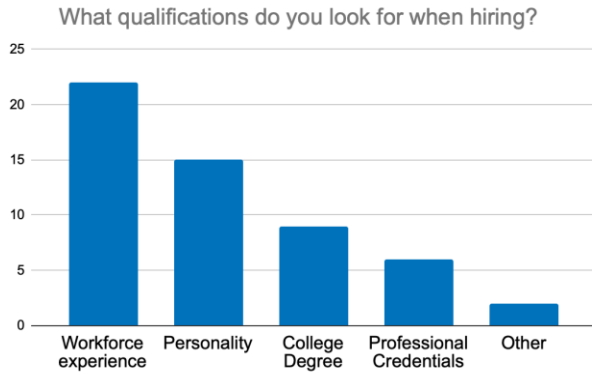


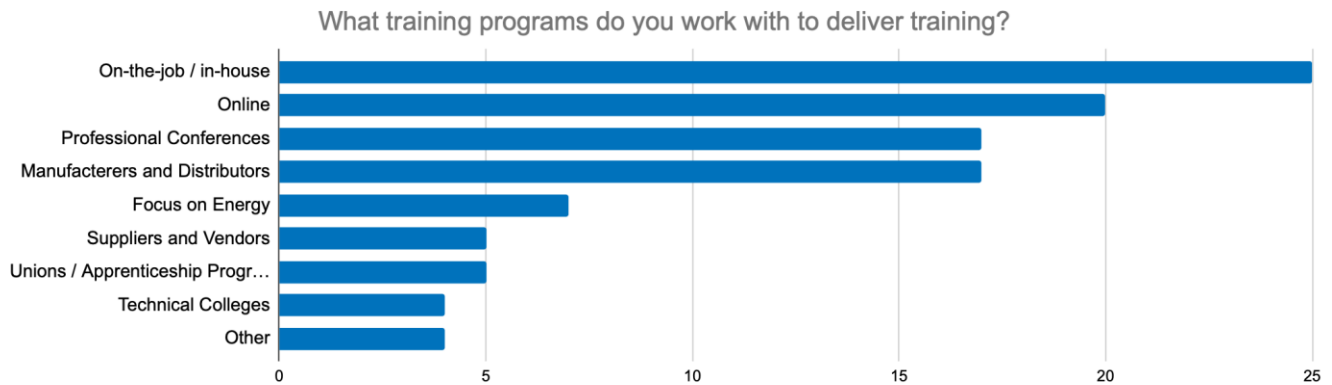
Figure 12. Qualities Valued by Employers



#### Topic 4. Trade Ally Training Trends

Trade Allies offer a variety of training programs for employees with the most popular form being in-house training that is provided through their own business. Besides in-house training, Trade Allies reported receiving most of their training through external opportunities such as professional conferences, online, and from manufacturers and distributors. Online training programs included BPI, RESNET, NATE, LIFT, and other continuing education credits. The Better Buildings: Better Business (B4) Conference, which was last hosted in 2020, was referenced the most as missing from the industry. Manufacturers and distributors such as Generac, Bryant, and Lennox were identified as critical partners that trained employees through online webinars, in-person classes, and conferences. Several Trade Allies work with Focus on Energy, statewide programs, and suppliers and vendors to receive training. Some Trade Allies participate in apprenticeship programs and receive their training through the associated unions, or by sending employees to classes at local Technical Colleges. When asked if they were aware of any other organizations that offered relevant training, most respondents expressed uncertainty. However, some mentioned specific organizations that they have heard of. Many Trade Allies mentioned that they used to attend the B4 Conference, highlighting its enduring impact on the industry’s training landscape. Nearly all the Trade Allies that had attended this conference said that they would be interested in attending again if it came back or indicated the need for another similar conference to take its place.

Figure 13. Delivery of Training



When Trade Allies were asked about the programs they currently work with to deliver training, the most common responses were on-the-job and online training. Similarly, on-the-job and hands-on training were identified as the most beneficial types of training, with in-person training following closely behind. However, even though online training was identified as the most utilized form of training, it fell last as the most beneficial training type. Additionally, a few Trade Allies specifically mentioned job shadowing as being the most beneficial training type. When asked the best time of year to receive training, Trade Allies reported that it would be best to receive training during the times of year when business is slow. For most Trade Allies, this was during late winter to early spring, around February to April.

Figure 14. Most Beneficial Types of Training

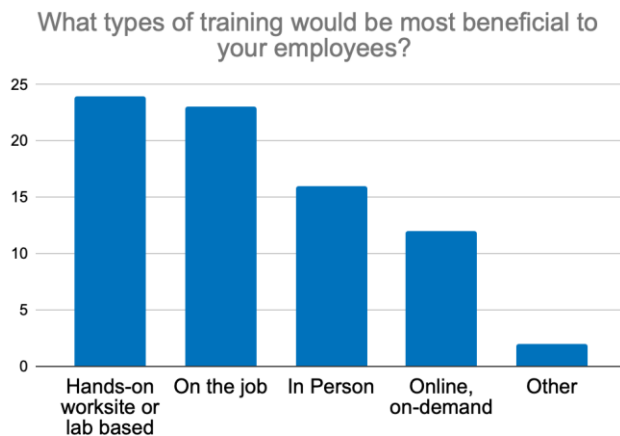
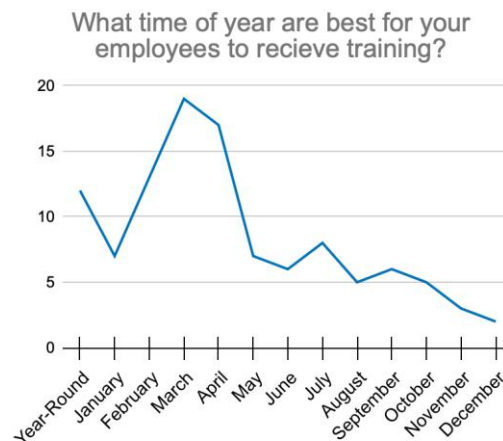


Figure 15. Best Times for Training



## Topic 5. Trade Ally Partnerships, Internships, and Apprenticeships

Internships typically offer short-term, hands-on work experience in a specific field, often undertaken by students or recent graduates to gain practical skills and explore career interests. Internships played a limited role in the Trade Allies surveyed with only 8% saying

that they participate in an internship program. 92% of Trade Allies don't participate in an internship program, although 10% said that they had in the past, or have their own informal version. Looking ahead, nearly 75% of Trade Allies showed some level of interest in participating in an internship program if one was available to them. Only 26% stated that they had no interest.

Figure 16. Internship Program Participation

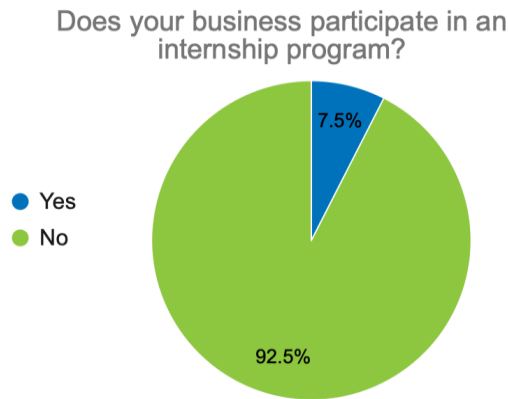
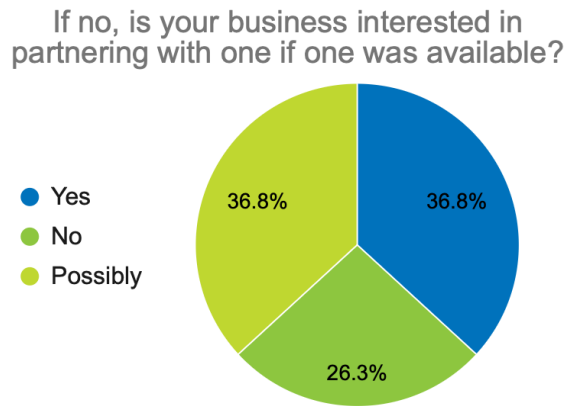


Figure 17. Internship Program Interest



Apprenticeships are structured, long-term training programs that combine on-the-job learning with classroom instruction, leading to a recognized license or qualification in a skilled trade. Apprenticeships, affiliated with trade unions like the International Brotherhood of Electrical Workers or associations like the Associated Builders and Contractors, are administered by organizations with participation from myriad contractors that host apprentices. These programs involve formalized training with standardized curriculum, wages, and benefits. Apprentices can receive their required related instruction directly through the association or union or through a formal training partnership with a local technical college or independent training program. Although it is still the minority, a larger number of Trade Allies participate in apprenticeship programs than internship programs, with 18% saying that they were partnered with a formal program. Of the 82% of Trade Allies that don't participate in an apprenticeship program, 25% said that they had participated in one in the past or have their own informal version. Looking ahead, over 80% of Trade Allies showed some interest in participating in an apprenticeship program if one was available to them. Only 17% stated that they had no interest. Even though current internship and apprenticeship participation rates are low, these findings suggest a willingness to explore and engage in formal internship and apprenticeship initiatives.

Figure 18. Apprenticeship Participation

Does your business participate in an apprenticeship program?

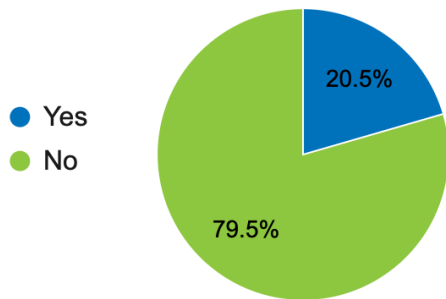
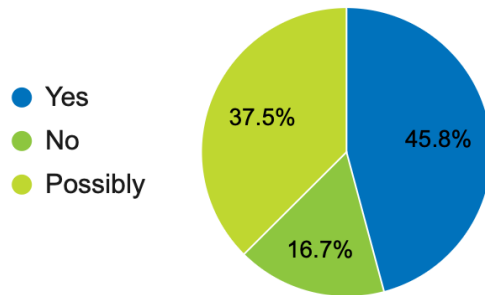


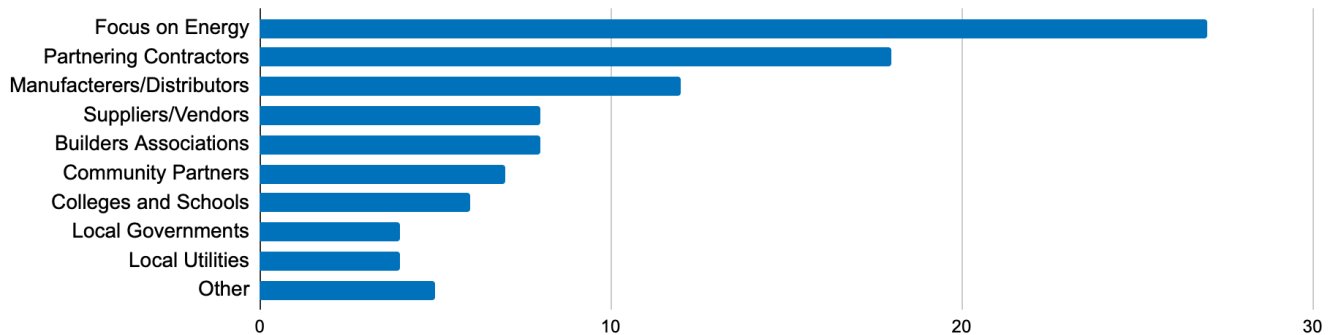
Figure 19. Apprenticeship Program Interest

If no, is your business interested in partnering with one if one was available?



Trade Allies attribute much of their success to a wide array of partnerships that contribute to overall growth. Of those interviewed, nearly every Trade Ally cited Focus on Energy as one of their most critical partnerships, showing the integral role of Focus programs and Trade Ally status in supporting and enhancing business operations. Next, Trade Allies emphasized the importance of other contractors from the Trade Ally network as pivotal to business success, whether it was subcontractors, partnering firms, or referral partnerships. Industry partnerships also proved to be critical for business success, with the next most important partnerships being manufacturers, distributors, suppliers, vendors, and builders' associations. Trade Allies also pointed to local and community-based partnerships as having some importance. Lastly, local governments, utilities, and local schools were noted as playing essential supporting roles.

Figure 20. Critical Partnerships



As the industry changes, partnership needs will continue to evolve. One area where Trade Allies saw changing partnership needs was training and education. A notable trend points out the increasing demand for technology-based skills and training for service technicians, indicating a shift towards more training specific to programming and controls. Additionally, some Trade Allies noted that suppliers, recognizing the shortage of qualified contractors in the industry, are becoming more involved in training initiatives. There is an emphasis on the importance of a closer collaboration with Focus on Energy, especially when new rebate programs are introduced. Consumer and contractor education on emerging technologies, such

as heat pumps, was identified as a growing need, showing that educational partnerships will continue to be needed.

New federal and state policies such as the IRA will shift the industry towards electrification and resilience-focused work, and many Trade Allies emphasized the need for more coordination between the trades to best implement interventions to meet residential energy savings targets and maximize incentives. An example of this would be to strengthen coordination of electrical and heating services, particularly in the context of new rebates and incentives that promote the transition to electric heating. In addition, energy auditors, insulators, HVAC companies, and electricians are all needed to provide services that are rebated through the HOMES and HEAR programs.

Trade Allies emphasized the importance of developing new partnerships within the industry, expressing intentions to foster more industry partnerships for referrals. Industries such as solar emerge as key opportunities for partnerships, recognizing a consumer demand for on-site energy generation and resiliency as home electrify. Additionally, exploring partnerships with banks and lenders for increased collaboration align with consumer needs for financing. The pursuit of collaboration with different industries that align with the businesses' objectives demonstrates a strategic approach to expanding networks. Looking ahead, Trade Allies recognized the importance of maintaining existing relationships with manufacturers, partnering contractors, and Focus on Energy. The continued significance of Focus on Energy as a strong partner underscores the enduring role of established programs in supporting businesses in the evolving landscape.

## **Topic 6. Trade Ally Suggestions**

Trade Allies were given the opportunity to make suggestions for workforce development opportunities they would like to see Focus on Energy pursue, as well as suggestions as to how the program can best support their business workforce and training needs. A recurring theme among suggestions was the need for continued investment in training initiatives, particularly those focusing on emerging technologies such as heat pumps and high-efficiency equipment. Enhancing efforts for advertising, consumer education, and increasing consumer awareness about the full spectrum of rebates emerged as a vital strategy to keep the industry growing. There was a consensus on the importance of providing resources and support for recruitment efforts and education in high schools and middle schools to attract more individuals to the trades. Lastly, Trade Allies called for increased industry partnerships, technical and soft-skills training, data sharing, and apprenticeship opportunities.

The wealth of insights and suggestions regarding workforce development opportunities underscores the collaborative spirit within Wisconsin's trades sector. Trade Allies expressed a

collective desire for a multifaceted approach to workforce support, encompassing initiatives such as specialized training courses, recruitment incentives, and advertising dollars to amplify their reach. These suggestions offer a roadmap for enhancing Wisconsin's energy efficiency landscape, ensuring that Trade Allies and Focus on Energy align their efforts to effectively navigate the evolving industry.

## **TRAINING PROVIDER RESEARCH**

The following sections present the key findings from the ten training provider interviews. It begins with an overview of training programs including how they are delivered and instructed. It describes the use and value of advisory boards, as well as student recruitment strategies, enrollment trends, and career placement services. The final sections describe training provider needs and conclude with suggestions of how to best support training programs.

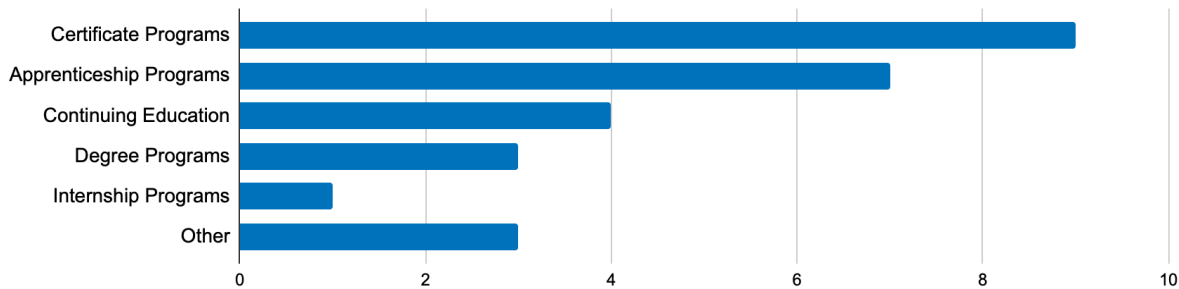
## **TRAINING PROVIDER RESEARCH FINDINGS**

### **Topic 1. Training Programs and Delivery**

Training providers offer a variety of programs to support professionals in the building energy efficiency, HVAC, and building electrification industries. Certificate (i.e. technical diploma) programs were most common, with all but one training provider offering them. The majority were 1-year technical diplomas that either stood on their own, or were integrated into a degree program, meaning that students who pursued the degree also earned the technical diploma. Additionally, some programs embedded third-party credentials such as EPA 601/608, BPI, and OSHA. Others provided career support like residential building permits and dwelling contractor licenses, along with preparation for industry competency exams for HVAC professionals. Besides certificate programs, over half of training providers also provided related instruction for apprenticeship programs. Training for apprenticeships programs was more than twice as common as 2-year degree programs. These programs ranged from HVAC, electrical, construction electrician, plumbing, electrical lineman, steamfitter, and more. Apprenticeship programs included IBEW and ABC apprenticeships. All the training providers for apprenticeship programs said they plan to continue supporting these programs and either plan to expand them or would expand them if they saw an industry need for it. Lastly, continuing education credits, internship programs, and partnerships with local high schools were also mentioned as training program offerings.

**Figure 21. Types of Training Programs**

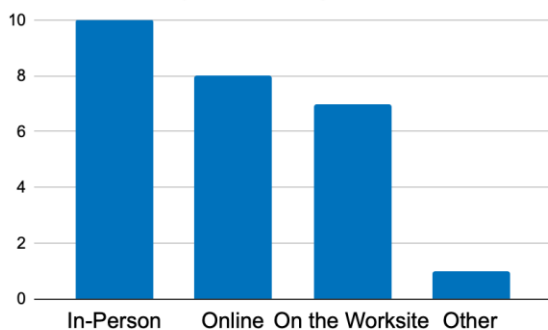
What training programs do you offer to support building energy efficiency, HVAC, and building electrification professionals?



Training providers employ various methods to accommodate the needs of their students. Every training provider reported delivering at least some in-person training, with seven reporting that training was delivered on the worksite. 80% of training providers deliver training online, with a majority stating that online was only a portion of their delivery. Hands-on and applied training are integral components of the programs, with 70% of training providers providing labs that are equipped to simulate real-world scenarios, providing students with valuable exposure to industry-standard equipment and practices. Worksite training is also offered by 70% of the training providers, enabling students to gain experience in authentic job environments. Partnerships with organizations such as Habitat for Humanity, facilitate worksite training opportunities and immerse students in actual construction projects and service calls.

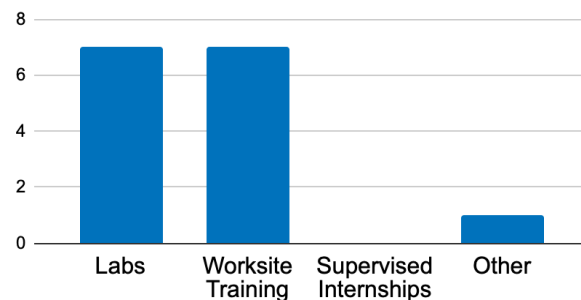
**Figure 22. Training Delivery Method**

How is your training delivered?



**Figure 23. Hands-On and Applied Training**

Describe the hands-on and applied training provided by your program



## Topic 2. Instruction

Training providers prioritize hiring instructors with extensive knowledge and industry experience to ensure the delivery of high-quality education. The qualifications expected of instructors typically require a combination of formal education, professional credentials, and industry experience ranging from several years to decades. Instructors often hold advanced degrees in their respective fields with journeyman status required as a minimum attainment for

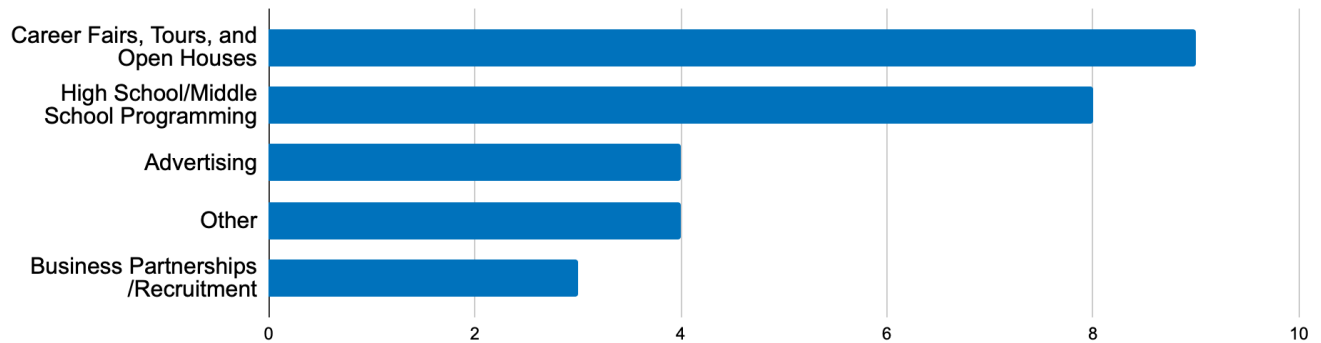
construction, electrical, HVAC, and plumbing trades. Training providers also want instructors to demonstrate a commitment to ongoing learning and professional development, aligning with the dynamic nature of the industry. Instructors advocate for a blend of instructional methods, recognizing the value of incorporating lectures, labs, on-site training, and online components into their curricula. This multifaceted approach ensures that students receive comprehensive instruction that prepares them for real-world challenges and opportunities.

As instructional needs evolve, training providers are grappling with various challenges, such as current instructor capacity and the recruitment of qualified instructors. Additionally, they face challenges with the integration of emerging technologies into teaching practices, and increased demand for online training. Most programs have or are in the process of adapting traditional lectures and lab courses to virtual and hybrid platforms to keep up with instructional shifts.

### Topic 3. Recruitment, Enrollment, and Career Placement

A range of training programs experience fluctuations in enrollment. Among those that witnessed increased enrollment in the last two years are HVAC, electrical, and plumbing programs, with some respondents noting heightened interest across all offered programs. Apprenticeship programs and technical diploma courses are also experiencing increases in enrollment. These increases can be attributed to various factors such as employer demand, program adaptations to serve working professionals, expanded offerings that include 1-year technical diplomas, strategic marketing, and industry partnerships fostering direct referrals. Conversely, certain programs such as renewable energy technician, energy management, and structural design noted declines in enrollment. Decline in enrollment isn't correlated to a decline in job availability. Training providers indicated that graduates of all programs, even those with low enrollment, are still in high demand from employers. The primary factor contributing to decreases in these programs is the lack of student interest in the programs. Next, training providers highlighted their strategies in recruiting students. 90% of training providers reported promoting enrollment through events like career fairs, tours, and open houses. The majority of these events were advertised towards high school or middle school students, with 80% of training providers targeting these groups for enrollment. Just under half of training providers reported promoting enrollment through advertising, and the same amount reported using outreach to their business partners as a key method in promoting enrollment. Half of the training providers emphasized the importance of any recruitment initiative that brought students onto their campuses, deeming these in-person and on-site efforts as the most impactful. Two training providers stated that recruitment is most effective when faculty get involved and interact directly with students. An additional two training providers reported that partnering programs and organizations were critical to recruitment efforts.

Figure 24. Enrollment Promotion Methods

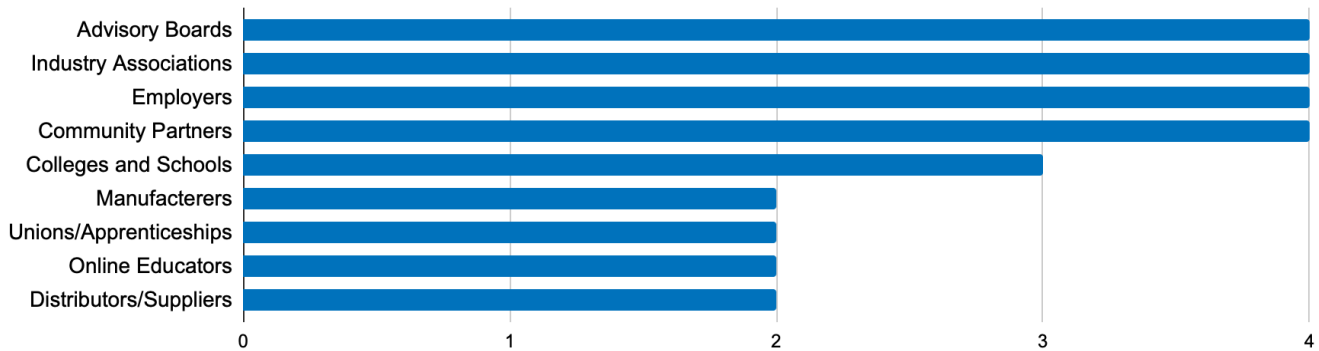


Training providers offered various forms of career placement assistance to their students and graduates, demonstrating a commitment to facilitating successful transitions into the workplace. Over half of respondents reported having an official office or department that specialized in providing resources and supporting students in their career placement efforts. This institutionalized support system helps to offer students personalized guidance and resources tailored to their career goals. Half of the training providers organize career fairs or similar events aimed at connecting graduates with potential employers, thereby fostering networking opportunities for employment. Just under half of training providers highlighted the provision of resources to assist students in essential tasks such as resume creation, mock interviews, and job application submission. Such hands-on guidance ensures that graduates are equipped with the tools and skills to enter the job market confidently. Another two training providers offered courses specifically designed to develop these vital career-related skills, providing students with structured learning to enhance their employability. Others utilize job boards and their advisory boards to allow students to access employment prospects.

#### Topic 4. Partnerships

Training providers emphasized the critical roles of various partnerships in delivering effective training programs. They highlighted advisory boards, industry associations, employers, and community partners as the key collaborators in shaping their programs to meet industry needs. Additionally, partnerships with other colleges and schools were identified as essential for enhancing educational opportunities and resources. Moreover, manufacturers, suppliers & distributors, unions, and online educators were recognized for their valuable contributions to supporting training initiatives and ensuring access to relevant tools and resources. These partnerships collectively contribute to the success and relevance of training programs, fostering collaboration and innovation within the industry.

Figure 25. Critical Training Partnerships



Advisory boards play a pivotal role in shaping the direction and effectiveness of training programs. Seven of the training providers reported having formal advisory boards. Of those, three quarters expressed satisfaction with their board and thought that it provided sufficient and meaningful guidance to their programs. However, a quarter of training providers indicated dissatisfaction, citing areas for improvement in the board’s functionality. Some highlighted challenges in diversifying their advisory board, expressing a desire to include more employees alongside employers to ensure a well-rounded representation of industry interests. Others emphasized the need for increased engagement and visibility from board members, advocating for more proactive communication.

Some training providers highlighted concerns about “jobbing out,” where students are recruited by employers before completing their training. A key consideration was to encourage advisory board members to prioritize student retention and ensure a balance between meeting industry demands and supporting students’ educational journeys.

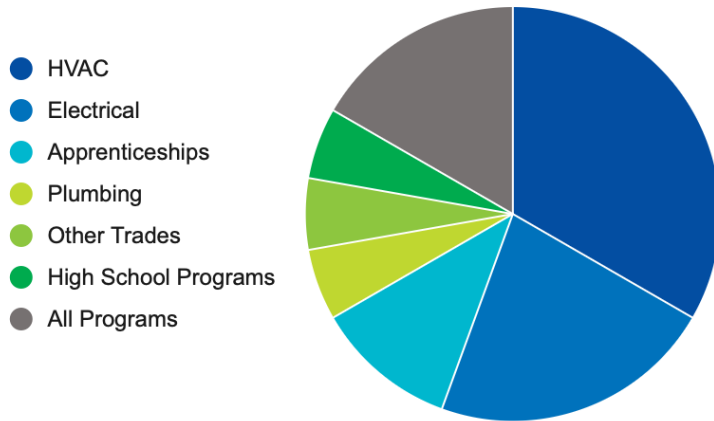
Three of the training providers lacked a formal advisory board, but all of them maintained informal relationships with businesses that provided guidance and support. This included foundation boards, coalitions, working groups, and other informal partnerships. One of these training providers expressed interest in establishing an advisory board, while the others expressed satisfaction with their current partnerships and collaborations.

## Topic 5. Changing Training Needs

Training providers are keenly attuned to evolving market trends that shape the demand for their programs and influence the type of training they offer. One notable trend highlighted by Trade Allies was the demographic shifts within the workforce, including an aging workforce and historically declining interest in certain trades that have demonstrated a recent resurgence in enrollment. The National Student Clearinghouse indicated that two-year college skilled trades program enrollment has been increasing, with construction even returning to pre-pandemic

levels of enrollment (Enrollment Estimates, 2022). Training providers confirmed this shift, indicating that enrollment was up across a variety of trades programs.

*Figure 26. Programs with Increased Enrollment*

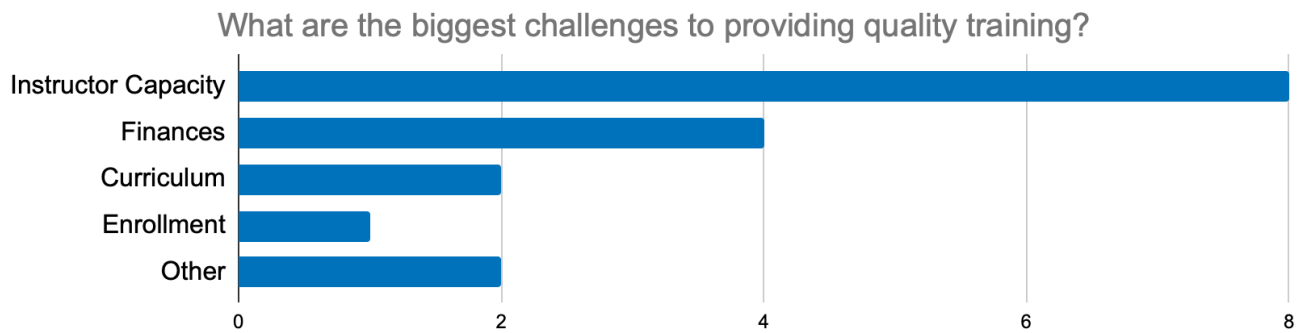


The increasing prominence of electrification and renewable energy emerged as a prevalent trend impacting most training programs. Newer technologies and concepts in HVAC such as cold climate heat pumps, new EPA refrigerant requirements, and building energy management technologies are not widely understood and require updated training programs to meet emerging industry demands.

Student demands for greater flexibility and the shift towards online and hybrid classes were commonly cited as a training need, necessitating ongoing updates to training curricula. Regional disparities in community needs, such as high demand for housing repairs in impoverished areas, were also noted, prompting tailored training programs to address specific community challenges.

Amid the changing needs of the industry, training providers shared insights into the challenges they face in delivering quality training programs. The most common being instructor capacity, with 80% of training providers highlighting it as the biggest challenge to providing quality training. Financial constraints were also identified by just under half of training providers as a significant challenge, with specific reference to the need for sufficient resources to support lab equipment and lab space. Two training providers pointed to curriculum-related issues as being the biggest challenge, and one pointed to enrollment as a key challenge.

Figure 27. Challenges in Training



Training providers identified several key areas of adaptation and strategies to address emerging challenges. A recurring theme is the necessity for advancements in training methodologies and technologies, with a focus on implementing hands-on, industry-recognized tools and staying abreast of current trends. Recognizing the growing demand for hands-on training opportunities, providers expressed intentions to increase such offerings as opportunities arise. Given the dynamic nature of technology, there is an ongoing commitment to providing continuous training to equip individuals with the relevant skills and knowledge. Flexibility in program delivery is also deemed essential, with shorter time commitments in achieving credentials and more flexible scheduling options gaining traction to better accommodate student schedules. Additionally, there is a concerted effort to enhance engagement and effectiveness in online training, leveraging digital platforms to mirror the quality of in-person instruction. Despite challenges in virtual instruction uptake, efforts are underway to refine in-person classes while exploring ways to optimize online and hybrid/blended formats. To overcome these challenges, training providers are investing in instructional technology, expanding their offerings, and training new personnel.

## Topic 6. Training Provider Support Needs

Training providers outlined several key areas where they require support to enhance the effectiveness of their training programs. They highlighted the need for professional development opportunities tailored for instructors, ensuring that they are offered at times convenient for them. They also expressed a desire for access to qualified presenters and adjunct instructors to enrich their training programs. Many training providers emphasized the importance of strengthening partnerships with advisory committees and expanding employer participation to ensure relevant curriculum and increase job opportunities for graduates. They also stressed the importance of increasing student recruitment efforts, particularly for specialized programs that are down in enrollment. They highlighted the need for additional resources to support these recruitment initiatives and financial support for various aspects of program enhancement. This includes funding for recruitment efforts, facility expansion, training

lab equipment and materials, and mentoring programs. Most of the training programs currently rely heavily on donations from industry partners for equipment and lab resources. Increased funding to get more of these resources and support specific needs would help ensure students receive training on high efficiency, electric equipment that is targeted with state and federal incentives.

Training providers offered several suggestions for the allocation of workforce development funds to bolster workforce training initiatives. Key recommendations included allocating grant funds for adjunct instructor participation and instructor professional development. Moreover, they highlighted the need for initiatives that promote awareness of training opportunities and financial support for high school students pursuing dual credit courses and technical diplomas with the area technical college. Lastly, they advocated for enhanced wrap-around services for students, incentivize more students to enter the trades, and support technical programs in high schools to increase technical and social competencies, or soft skills, in high school graduates. Training providers offered insightful suggestions for how Focus on Energy could support both students and businesses seeking trained employees. They emphasized the importance of active involvement in the development of courses, suggesting a stronger dialogue and collaboration with Focus on Energy during this process. Additionally, they recommended support for student and instructor participation in events such as industry conferences and field days to facilitate instructor professional development and student recruitment. Lastly, they emphasized the need for effective consumer education and quality assurance.

## **CONCLUSIONS AND RECOMMENDATIONS**

### **Recommendations**

The following recommendations reflect the Trade Allies' and training providers' shared perspectives on areas that need attention and improvement. Addressing these common concerns would provide additional support and resources to Trade Allies, helping them to successfully deliver energy efficiency products and services to the market. Additionally, addressing these concerns would increase training capacity and quality for training providers, helping them to successfully deliver energy education to students, increasing enrollment in technical training and student preparedness for entry level positions. Overall, the following recommendations will foster a more robust and skilled workforce that can deliver quality energy efficient products to Focus on Energy customers, helping Wisconsin achieve its energy goals. Six key recommendations were derived from Trade Ally and training provider interviews:

#### **1. Build on Existing Programs**

We identified several programs that are key to supporting Trade Allies and training programs. These recommendations will work to leverage those programs to increase their value.

- Networking and Knowledge-Sharing Opportunities:
  - Create and support opportunities, such as the B4 conference, to provide networking opportunities for industry professionals, as well as educational seminars on new products, programs, approaches, etc. Support professional credentials and continuing education where applicable.
  
- Promote Trade Careers to Students:
  - Develop targeted initiatives to promote Trades careers to high school students, fostering interest and awareness early in their educational journey. Provide additional funding to leverage existing state Career and Technical Education Grants that provide reimbursement to high schools that pay for students to attend technical college training. The reimbursements currently only cover part of the cost (up to \$1,000 per student) and are only offered if the high school student receives a technical diploma. Since high schools often use their own funds to pay for student enrollment in technical college courses, incentives that cover a greater portion of the cost, including for courses that lead to a technical diploma, would provide greater ability for high schools to promote technical college courses to students.
  - Support electrification industry participation in high school experiential activities such as “Build My Future” events organized by regional building associations. These, and other similar events, bring high school students onto technical college campuses or other sites to be immersed in the construction industry and network with employers.
  - Focus on Energy has developed “Career Exploration Workshops” to promote the trades in high schools. Focus on Energy’s effort does not currently have support for staffing to engage high school students and counselors with resources. In addition, the Wisconsin K-12 Energy Education Program (KEEP) has resources to support middle and high school engagement with energy-related careers. To best increase student interest in the trades, support staffing to engage technical college instructors, high schools, and contractors in utilizing existing resources.
  
- Support for Employee Training Leading to Industry Recognized Credentials:
  - Support training programs that offer industry-recognized third-party credentials and DSPS certification and maintenance pathways to ensure program quality and relevance. Professional credentials such as NATE, BPI professional certifications, RESNET HERs rater, and training that utilizes the DOE Building Science Education training materials are aligned with industry standards and support career advancement for workers. In addition, programs with formal industry advisory boards demonstrate a commitment to continuous improvement

and a relationship with employers that helps ensure curriculum alignment with industry needs and direct pathways to employment.

- Apprenticeships:
  - Promote apprenticeship programs to provide a structured pathway for skill development and support career advancement. Apprenticeship provides clear financial advantages to new workers and employee retention benefits to businesses. Focus on Energy could aim to expand existing apprenticeship programs by providing assistance for new businesses to engage with and align practices with existing union or non-union apprenticeship programs. Focus on Energy could provide employer incentives for hiring and retaining apprentices and subsidize the costs of related instruction requirements for each apprentice. Program funding could be used to support development of new apprenticeship programs aligned with appropriate WI Dept. of Workforce Development career pathways that serve under-represented occupations such as insulation installer and residential HVAC technician. For example, Lakeshore Technical College has a residential HVAC technician training program that uses a competency-based education model. This model allows for flexibility in the delivery of related technical instruction and a platform for competency testing that could support apprentices in satisfying on-the-job training hours. These efforts will attract more workers into the trades and support skills attainment & career advancement.
  
- Leverage/Model Weatherization Assistance Program (WAP) Training:
  - WAP currently supports training for contractors providing service to the federally-funded program for low-income households. By leveraging existing WAP training program capacity, training could more quickly become available to other insulation Trade Allies.
  
- Develop and Formalize Relationships Between Technical College and HVAC Manufacturer/Distributor Training:
  - A majority of HVAC Trade Allies stated that though some employees receive initial training through technical college programs, much of the employee training is provided in-house and in partnership with manufacturers. Trade Allies find the training useful since it is often focused on the newest products and services but recognize its limitations on being focused only on the manufacturer's product. At the same time, technical colleges offer holistic training and sophisticated training labs but universally identify difficulties in getting the latest models of equipment. Training support should prioritize building relationships between technical college and manufacturer training programs to ensure that existing employees and students have access to comprehensive and advanced training and equipment.

- Provide Building Analyst Training and Certification to Existing Professionals
  - Energy auditors identified that knowledge of building construction is critical to conducting an accurate energy audit. Focus on Energy currently provides BPI Building Analyst training that meets the BPI 2400 standard required for modeled performance in the HOMES program. The HOMES federal residential efficiency incentives will depend on modeled savings to determine incentive levels and interventions. This will occur on thousands of existing residential buildings with varying age, architecture, and infrastructure. To ensure that energy savings targets are reached, Focus and other existing training programs should work to ensure that candidates have the industry experience to successfully model savings in a variety of building types. Training programs can improve training candidate qualifications by supporting experienced professionals from current Trade Allies to achieve their Building Analyst Professional certification. They can also support new and existing insulation technicians to achieve Building Performance Technician certification to increase the industry’s general knowledge of building science and provide pathways to more advanced training and certifications for new professionals.

## 2. Support the Customer

Research findings emphasize the role of Focus on Energy as a key partner in business success and identified consumer access to complete, actionable, and compelling information as a major barrier to market growth. With the addition of complex federal incentive programs to existing state incentive programs, customers will need further support to make highest-value/lowest-cost energy efficiency and electrification upgrades. The following strategies will work to enhance consumer education efforts, fostering a collaborative and supportive ecosystem for sustainable business growth.

- Consumer Education Resources:
  - Invest in consumer education to better promote Focus on Energy programs and improve customer knowledge of incentives, technologies, benefits, and limitations. This can include additional investments in Focus on Energy resource development and consumer outreach. It can also include collaborative engagement with Focus Trade Allies to support widespread, uniform, and consistent consumer education efforts. Investments in consumer education will also support consumer protection, reduce contractors’ customer qualification costs, and improve customer experience.
  
- Consumer Education Partnerships:

- Partner with existing consumer education programs that serve target audiences to engage customers, especially low-to-moderate income households. This can include community groups that provide affordable housing services, CAP agencies that provide weatherization assistance, agencies that provide federal energy assistance, non-profit educational organizations that support energy efficiency and renewable energy adoption, affordable housing providers, and business associations that work to maintain and improve customer satisfaction. This can also include training provided by community organizations for Trade Allies concerning cultural competencies and effective communication to historically underserved communities.

### 3. Meet Trade Allies Where They Work

Supporting worksite training and continuing education support in partnership with contractors is critical. Trade Allies need to be confident in their abilities while increasing their services and maintaining customer satisfaction. These recommendations equip Trade Allies with the skills & knowledge to support energy saving home energy efficiency and electrification improvements.

- Worksite Training:
  - Reinvigorate “in-field” training programs and offer new training opportunities that engage Trade Allies on the worksite. The field support should include technical and soft skills relating to sales, performance testing, installation, service, and customer management.
- Financial Support for Training:
  - Offer financial support in the form of stipends and/or wage support for employee training to alleviate out-of-pocket expenses for businesses. Support does not need to be offered until training is completed to ensure full participation. Consider expanding stipends for travel and childcare for persons facing financial hardship.

### 4. Quality Control

As new incentives come into the market and Trade Ally participation expands, quality control will be critical to ensure high customer satisfaction. By establishing and promoting clear standards, Focus on Energy can ensure that Trade Allies provide consistent customer service. Quality assurance efforts can elevate the profiles of high performing Trade Allies and reduce customer exposure to Trade Allies that evidence poor customer satisfaction or demonstrate sub-standard quality in field audits. Additionally, efficiency requirements and program standards should align across incentive program offerings where possible to simplify the

customer engagement process. The research points to the following recommendations to implement additional quality assurance.

- Trade Ally Standards
  - Implement a robust quality assurance process for Trade Allies, ensuring business practice transparency and adherence to program requirements. This can include field audits, equipment calibration, and customer surveys. Focus should advocate for higher standards in the trades to maintain and improve customer satisfaction and maximize energy savings delivered by program investments.
- Trade Ally Promotion
  - Include detailed business descriptions on the website for Trade Allies including the length of time serving as a Trade Ally and number of customers served in Focus programs. The profiles could highlight contractors that have a proven record of quality service and high customer satisfaction and be conditional based on their participation in periodic audits required by Focus on Energy.
- Enhanced Communication
  - Analyze existing and available data related to customer satisfaction, field audit results, market trends, costs, workforce needs, training availability, and program changes. Share findings with Trade Allies to improve understanding of customer needs and facilitate communication and coordination between Trade Allies.

## 5. Supporting the Students

Training providers highlighted the need for bolstered support systems for students entering their training programs. Enhanced initiatives encompassing financial aid, wrap-around services, and program flexibility will help to ensure students' seamless access to training opportunities, fostering an environment conducive to their growth and success.

- Provide Wrap-Around Services:
  - Providing services such as childcare, transportation, food security and more, to reduce barriers to entry and keep students enrolled in programs.
- Support Underserved Markets:
  - Engage in efforts to bring in non-traditional students to help underserved markets. This can include partnerships with youth rehabilitation programs like Operation Fresh Start that provide industry exposure and hands-on learning opportunities.

- Increase Scholarship Opportunities:
  - Initiatives to provide scholarships and alleviate financial barriers, ensuring inclusivity and accessibility in training programs. This can include employer support for job placement through a predetermined probationary period as part of the training to provide student job experience and build employer partnerships.

## 6. Empowering Instructors

Training providers highlighted instructor capacity as the biggest challenge to providing quality training. There is a significant need to expand this capacity through targeted support and professional development initiatives. These recommendations aim to equip instructors with the necessary skills and resources to deliver high-quality training, ultimately enriching the educational experience for students and advancing workforce development goals.

- Professional Development:
  - Offer flexible professional development and training opportunities tailored to instructors' schedules, coupled with support for procuring training equipment and resources.
- Recruit Instructors with Industry Experience:
  - Incent individuals with industry experience to provide instruction in a structured training environment. Currently, working professionals have access to greater pay for overtime work in their existing profession than technical college programs can provide for instructional services. In addition, lack of teaching experience in trade professionals can be a barrier to student success. By supporting recruitment of adjunct instructors that are active in the industry, students will gain access to a diverse group of professionals with real world experience.
- Lab Equipment and Curriculum:
  - Offer financial support for training providers to upgrade labs and equipment. These funds could be used to acquire new, high efficiency equipment and controls, construction materials, and lab space. Training providers identified programming and controls as a priority area of need for lab equipment, curriculum, and instructor training due to the increased use of digital controls and monitoring in residential buildings. In addition, the persistent high cost of materials and need for additional space were identified as significant limitations to providing hands-on training.

## Lessons Learned

Throughout the research process, several valuable lessons were learned about communicating with Trade Allies and compiling findings and recommendations.

Securing interviews with contractors proved to be a notable challenge. Determining the most effective mode of communication to engage with Trade Allies presented as an initial hurdle, causing us to use outreach methods beyond initial email communication. This included multiple direct requests from Focus on Energy staff (Energy Advisors) and phone calls directly to business offices. Seasonal constraints, particularly the heightened workload of some Trade Allies over the winter, caused scheduling difficulties. Last-minute cancellations due to unforeseen emergencies were common, underscoring the need for our flexibility amid the demanding schedules of Trade Allies. We had also initially planned to conduct more in person interviews and site visits, but most Trade Allies preferred the convenience of virtual interviews.

In designing the research, we understood that quantifying findings, such as determining the qualification of hired candidates, would present inherent difficulties as the description of “qualified” often varies by interview subject. In addition, we had a relatively small data set of Trade Allies and training providers that were not selected in a way to support statistical analysis since we had varied business types and prioritized Trade Allies recommended for interview by Energy Advisors. Our research design relied on interviews to define conditions and perceptions with follow up questions to clarify responses and facilitate further discussion. We recorded the interviews and used the notes and interviews to outline findings and develop recommendations. And we used an in-person stakeholder review session and follow up survey to engage Trade Allies and training providers in the review of the findings.

The methodology was successful in getting detailed responses from interview subjects, but the range of training programs offered, and types of businesses interviewed posed difficulties in meaningfully portraying findings. This required us to create a more detailed narrative to place findings in context and describe differences based on Trade Ally business type and training programs offered. Recommendations often varied by the type of business and training program which required us to analyze responses by category and provide a detailed narrative to provide context to the recommendations.

Despite the challenges encountered in summarizing findings and recommendations, the enthusiastic participation of Wisconsin Trade Allies and training providers in interviews and in the review of the report findings and recommendations supported the development of a detailed report and consensus recommendations. Using this research methodology, the stakeholder review process was particularly helpful in verifying findings and refining recommendations.

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# APPENDIX

## Training Provider Site Visits

*Lakeshore Technical College*



Fox Valley Technical College





Northeast Wisconsin Technical College





## Trade Ally Interview Questions

1. What products and services does your business offer?
2. In general, what market opportunities do you see for your business?
3. In general, what market challenges do you see for your business?
4. Is your organization planning to expand operations?
  - a. If yes:
    - i. What other factors justify the expansion?
    - ii. Are there provisions in the Inflation Reduction Act or other federal/state policies that are influencing your business expansion?
  - b. What products and/or services are you targeting for expansion?
  - c. If no:
    - i. What factors are limiting business activity?
    - ii. What specific products and/or services are limited?
    - iii. Are there provisions in the Inflation Reduction Act or other federal/state policies that are influencing your business plans?
  - d. What could be done to better support your business growth?
5. Has your organization tried to hire new employees in the past year?
  - a. If yes:
    - i. Were you successful in finding a qualified candidate?
    - ii. What strategies did you use to find qualified candidates?
  - b. If no:
    - i. In your opinion, what makes it difficult to find qualified candidates?
    - ii. Are you planning to, or are you currently, trying to hire additional staff?
6. If yes:
  - a. Approximately how many individuals?
  - b. What positions are you hiring for?
  - c. What length of time would new hires be expected to fill?
  - d. Short-term ( $\leq 1$  year)
  - e. Mid-Term (1-3 years)
  - f. Long-term (3+ yrs)
7. Which hiring approach has been more successful for your business?
  - a. Hiring candidates that have already completed technical education/training
  - b. Hiring new employees and training them on the job
  - c. Providing apprenticeship opportunities
8. What methods do you employ to target candidates?
  - a. Indeed
  - b. LinkedIn
  - c. Career Fairs/Events
  - d. Talent Acquisition Firm
  - e. Word of Mouth

- f. Technical College/Training Program Partnerships
  - g. Paid Advertisements
  - h. Other
9. What occupations are most in need for your business?
- a. Sales and Customer Service
  - b. Project Managers
  - c. Installation
  - d. Engineering
  - e. Electricians
  - f. Service
  - g. Other
10. What factors do you think contribute to the difficulty in recruitment?
- a. Insufficient formal education and training programs
  - b. Lack of awareness about career opportunities
  - c. Compensation and benefits not competitive
  - d. Limited availability of skilled candidates
  - e. Other
11. What training knowledge, skills, & abilities are most critical for your employees at this time?
12. What qualifications do you look for when hiring?
- a. Workforce experience
  - b. Professional credentials
  - c. A college or technical college degree
  - d. Other
13. What credentials/certifications are most important for your employees?
14. What training program(s), if any, do you work with to deliver training to new and/or existing employees?
15. Are you aware of other orgs/initiatives offering training relevant to your business?
- a. If yes: Are you interested in working with them? Why or why not?
16. Does your business participate in an internship program?
- a. If yes: Is the program meeting your needs? Why or why not?
  - b. If no: Is your business interested in partnering in an internship program if one was available?
17. Does your business participate in an apprenticeship program?
- a. If yes:
    - i. What occupations are included?
    - ii. Is the program meeting your needs? Why or why not?
  - b. If no:
    - i. Is your business interested in participating in an apprenticeship program if one was available?

- ii. What occupations would be a priority for the program?
  - iii. Is there a specific program that you are interested in? Why?
18. What times of year are best for your employees to receive training?
  19. What type of training would be most beneficial to your business?
    - a. On the job training
    - b. Online, on-demand training
    - c. In person training
    - d. Hands-on worksite or lab-based training
    - e. Other
  20. What partnerships have been critical to your business success?
  21. How are the partnership needs changing?
  22. What new/continued partnerships do you see as critical to your business success?
  23. Do you have any suggestions for workforce development opportunities that you would like Focus on Energy to pursue?
  24. Do you have any suggestions for Focus on Energy as to how the Program can support your business workforce and training needs?

### **Training Provider Interview Questions**

1. What training programs do you offer to support building energy efficiency, HVAC, and building electrification professionals?
  - a. Degree programs
  - b. Certificate programs
  - c. Apprenticeship programs
  - d. Continuing education programs
  - e. Internship programs
2. What credentials are provided through your training program?
3. How is your training delivered?
  - a. In person
  - b. Online
  - c. On the worksite
4. Describe the “hands-on” and applied training provided by your program.
  - a. What type of labs do you maintain?
  - b. Worksite training?
  - c. Supervised internships?
5. How many people do you provide training to per year?
6. What knowledge and experience is required for instructors in your program?
  - a. How many instructors do you employ?
  - b. What types of instruction are required?
  - c. How are instruction needs changing?
7. Does your program(s) have an industry advisory board?

- a. If yes,
    - i. How are industry advisors recruited?
    - ii. Does the board provide meaningful guidance to the programs?
    - iii. Do companies on the board typically hire your graduates?
    - iv. How would you change the advisory board, if at all?
  - b. If no,
    - i. Do you have informal relationships with businesses that guide program activities/employ graduates?
    - ii. Are you interested in developing a board?
8. Does your program provide instruction in support of an apprenticeship program?
- a. If yes:
    - i. Which apprenticeship programs do you support?
    - ii. Do you plan to continue to support or expand the programs?
  - b. If no:
    - i. Do you plan to develop relationships with programs to provide related instruction?
    - ii. Which occupations and programs are you pursuing?
9. In general, describe trends in enrollment for your program(s).
- a. If enrollment is up:
    - i. Which programs? Why do you think this is occurring?
  - b. If enrollment is down:
    - i. Which programs? Why do you think this is occurring?
10. What market trends are, or will be impacting the type of training you provide?
11. What partnerships are critical to providing effective training through your program?
12. How are training needs changing? How are you working to overcome challenges?
13. What are the biggest challenges to providing quality training?
- a. Instructor capacity
  - b. Curriculum
  - c. Enrollment
  - d. Finances
14. How does your program promote enrollment?
- a. Highschool programming
  - b. Career fairs
  - c. Advertising
15. What recruitment efforts do you think are most effective?
16. What career placement support do you provide to graduates?
17. Who are the primary employers hiring from your program?
18. What positions are they typically hiring?
19. What, if any, challenges do your graduates face finding employment?
20. What type of support do you need to make your training program more effective?

21. Suggestions for how Wisconsin workforce development funds should be spent?
22. Do you have any suggestions for Focus on Energy as to how the Program can support your students or the businesses that are looking for trained employees?