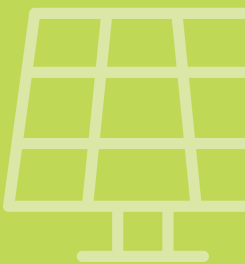
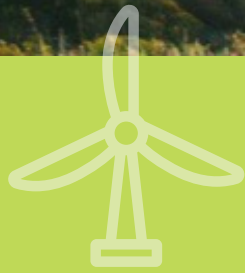




BUILDING PATHWAYS TO CLEAN ENERGY JOBS IN ILLINOIS



MARCH 2021

ACKNOWLEDGEMENTS

Authors: Mari Castaldi, Angela Morrison, and Meghann Moses

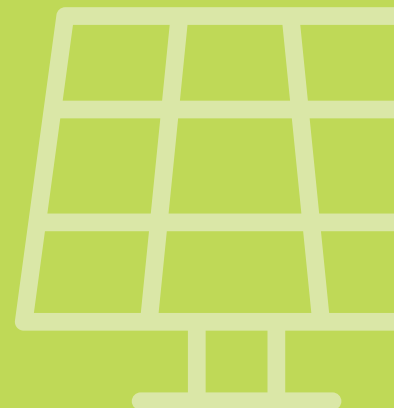
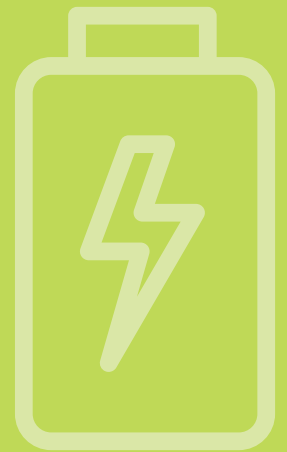
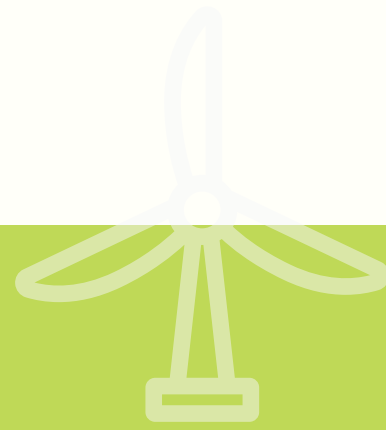
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BUILDING PATHWAYS TO GREEN ENERGY JOBS IN ILLINOIS

01 Introduction

03 What Do We Know About Clean Energy Jobs in Illinois?

05 Solar

06 Energy Efficiency

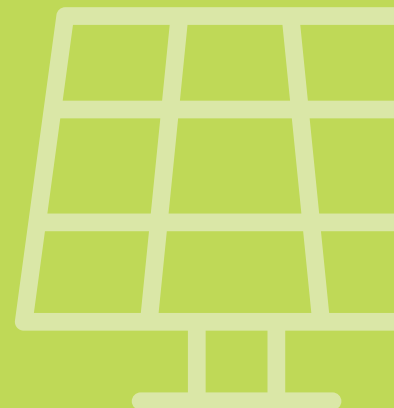
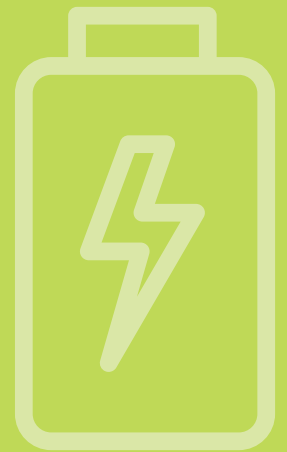
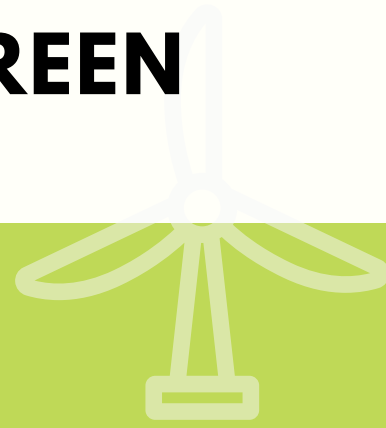
09 Mapping Clean Energy Career Pathways

10 Solar Example Career Pathways

13 Energy Efficiency Example Career Pathways

17 Policy Recommendations

21 Conclusion

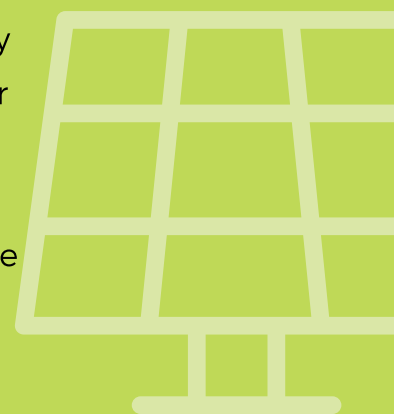
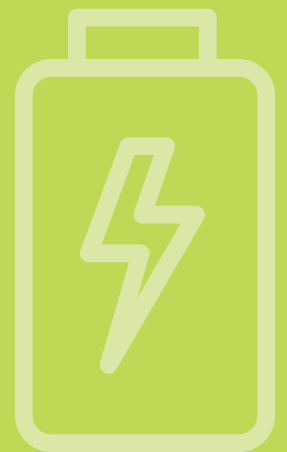


INTRODUCTION

Across Illinois, communities are talking about the economic promise of clean energy - not only to meet the urgent need to address climate change, but also how to contribute to recovering from the ravages of the COVID-19 pandemic and its harms to the economy, particularly in Black, Indigenous, and People of Color (BIPOC) communities.

A bold clean energy jobs agenda is a stated priority of leaders in Illinois. This includes not only how to incentivize clean energy job creation, but also how to invest in workforce development so that people marginalized by racism, sexism, and environmental injustice can directly access those jobs, advance within green industries, and benefit from public investments in clean energy. Building a competitive and equitable clean energy economy means not only investing in the business of clean energy, but also in the backbone of our state's workforce: workers with more than high school, but less than a four-year degree. In fact, many of the jobs that will build and sustain Illinois' clean energy economy will likely be these "middle-skill" workers in traditional occupations.

Broadly defined, "clean energy jobs" is not a sufficiently specific category to guide policy innovation or workforce training. To make the most progress on economic and workforce development in the green economy, we must focus more carefully on key clean energy sectors, the occupations within them, and how to build ladders for workers to advance along career pathways. This report, after summarizing what we know about the broader clean energy industry landscape in Illinois, focuses on two main industries where clean energy jobs are concentrated in Illinois: solar energy and energy efficiency building retrofits. We provide an overview of the landscape of each industry and offer examples of potential career pathways within each industry.



There are some important caveats to the career pathway information provided in this document. Our purpose here was to illustrate *possible* clean energy careers, highlighting a few examples of careers where training may be available locally and where jobs are concentrated or growing. These career pathways are by no means fully established and can differ from person to person. To our knowledge there has not been a concerted effort to establish integrated career pathways in clean energy jobs in Illinois, with the exception of formalized registered apprenticeship models, which are available within the building trades and often have overlap with some clean energy jobs. The career pathway maps and career charts in this document are meant to be illustrative examples only to allow job seekers, career coaches, and administrators to think about the types of jobs and pathways that might be available and what those pathways might look like.

However, it is clear that in order to ensure equitable inclusion of women, BIPOC, and members of environmental justice communities in clean energy and other good-paying infrastructure jobs, these career pathways must be built. To do so will require intentional policy decisions, clear commitment and accountability from businesses, employers, public administrators, and robust cross-sector partnerships.

Key Terms

- **Clean Energy Jobs:** A clean energy career can be any occupation that is involved in or affected by activities such as conserving energy, developing alternative energy, reducing pollution, or recycling.¹ Most clean energy jobs are not new occupations but rather jobs with familiar titles that may have many of the same skills and tasks or may have new skills or certifications added onto the original job²
- **“Middle Skills” Jobs:** Those jobs that require more than a high school degree but less than a 4-year college education.
- **Career Pathway:** A career pathway is a series of education and jobs that allows people to advance in their careers over time. In Illinois there is a definition that has been adopted by state agencies which can be found [here](#).
- **Industry:** The type of activities at a place of employment, for example construction or manufacturing.
- **Occupation:** The type of activities a person does to earn money, for example carpenter or computer programmer.³

¹ Office of Energy Efficiency & Renewable Energy, [“Explore Clean Energy Careers.”](#) November, 2020.

² E2, [“Clean Jobs, Better Jobs.”](#) October, 2020.

³ United States Census Bureau, [“FAQs.”](#)

WHAT DO WE KNOW ABOUT CLEAN ENERGY JOBS IN ILLINOIS?

There are many jobs which qualify as “clean energy jobs” in Illinois, across different sectors, industries, and occupations. Many of these jobs fit the bill of “middle skills” jobs, meaning they require more than a high school diploma but less than a Bachelor’s degree. Most of them fall under already existing occupations - thus they are not “new” jobs, but traditional occupations with a clean energy focus. This makes them a great opportunity for workers for whom a college degree is not a desired or realistic option, but for whom technical skills training could increase their access to better paying jobs.

Illinois leads the Midwest in clean energy jobs. Prior to the COVID-19 pandemic, over 125,000 Illinoisans worked in clean energy occupations, from solar to energy efficiency to clean fuels and grid storage. Across the board, clean energy industries were growing, adding 2,100 jobs in 2019.⁴ According to Clean Jobs Midwest, “At the end of 2019, more people in Illinois worked in clean energy than the combined workforce of real estate agents and brokers, computer programmers, web developers, and waiters and waitresses.”⁵ There are also more than twice as many clean energy jobs compared to jobs in fossil fuel industries.⁶

Numerous different industries and occupations comprise the umbrella of “clean energy jobs.” As of 2019, around 73% of clean energy jobs were concentrated in energy efficiency, which includes ENERGY STAR & efficient lighting, HVAC installation and maintenance, and advanced materials, among others. Around 14% of jobs are in renewable energy, including jobs in wind, solar, and bioenergy. The remaining 12% of jobs are spread across advanced transportation, grid and storage, and advanced fuels.⁷

⁴ Clean Jobs Midwest. [“Clean Energy is Key for Economic Recovery in Illinois.”](#) 2020.

⁵ Ibid.

⁶ Environmental Defense Fund. [“In Demand: Clean Energy, Sustainability, and the New American Workforce.”](#) January 2018.

⁷ Clean Jobs Midwest. [“Clean Energy is Key for Economic Recovery in Illinois.”](#) 2020.

WHAT DO WE KNOW ABOUT CLEAN ENERGY JOBS IN ILLINOIS?

Clean energy jobs, while concentrated in the populous Chicagoland metropolitan area, exist all across Illinois. Small businesses drive clean energy growth in Illinois - 74% of clean energy businesses employ fewer than 20 people.⁸

A recent analysis by E2 shows that, in Illinois, average wages for clean energy jobs are about 13% higher than the average wage. Additionally, clean energy jobs more often come with healthcare and retirement benefits. Nationally, in the solar industry, non-licensed, entry level installers earn about 11% more than the entry-level average wage for all construction and extraction jobs.⁹

Public investments in clean energy help account for some of the growth in clean energy jobs, particularly following federal investments from the American Recovery and Reinvestment Act starting in 2009 and state investments through legislation like the Future Energy Jobs Act (FEJA). The combination of increased demand for clean energy and business friendly energy policies like FEJA have led clean energy jobs to grow significantly faster than jobs in the rest of Illinois' economy. According to analysis of labor market data by Clean Jobs Midwest, "whereas the overall Illinois job market grew 2.4 percent in 2018, clean energy jobs grew at a much quicker pace -- about 4 percent."¹⁰

Unfortunately, like many industries across Illinois, the economic impacts of the COVID pandemic hit hard across clean energy industries. Recent analysis of U.S. Department of Labor unemployment data shows that 17,400 workers in clean energy-related companies lost their jobs in just the three months after the pandemic hit.

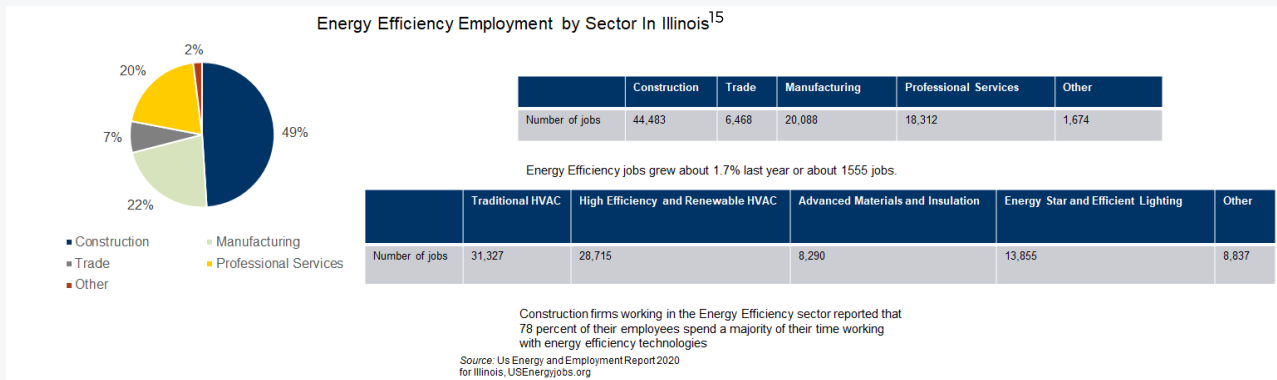
⁸ Clean Jobs Midwest, "[Clean Energy is Key for Economic Recovery in Illinois](#)," 2020.

⁹ E2, "[Clean Jobs, Better Jobs: An Examination of clean energy jobs, wages and benefits](#)," 2020.

¹⁰ Clean Jobs Midwest, "[Illinois Executive Summary](#)," 2019.

ENERGY EFFICIENCY

As of 2019, Illinois had about 91,000 energy efficiency jobs, adding 1,555 jobs over 2018 (1.7%). The largest number of these employees work in the construction industry. Workers may be HVAC technicians, plumbers, electricians, carpenters or other tradespeople or specialized weatherization technicians that complete energy efficiency building retrofits. For many jobs, additional skills related to energy efficiency are obtained on the job or through additional training, either at an apprenticeship facility, a community college, or trade school. The 91,024 energy efficiency jobs in Illinois represent 3.8 percent of all U.S. energy efficiency jobs.¹⁴



“Illinois needs “on ramps”, skills training, and wraparound supports to build an equitable clean energy workforce.”

¹⁴ Energy Futures Initiative, National Association of State Energy Officials (NASEO), “2020 U.S. Energy & Employment Report,” 2020

¹⁵ Ibid.

WHAT DO WE KNOW ABOUT CLEAN ENERGY JOBS IN ILLINOIS?

Over the last year, 39.3% of energy-related employers in Illinois hired new employees. However, many of those employers reported difficulty in hiring. Among energy efficiency employers which, as mentioned, supply the majority of clean energy jobs in Illinois, 61% reported having a “very difficult” time with hiring, and an additional 29% reported hiring was “somewhat difficult.” Per the 2020 U.S. Energy & Employment Report, the top 3 hiring challenges cited by Illinois energy employers included: (1) workers lacked experience, training, or technical skills; (2) competition/small applicant pool; (3) “Insufficient non-technical skills (work ethic, dependability, critical thinking).”¹⁶

Among the top 3 jobs where Illinois employers report hiring difficulty, two-thirds are middle-skill jobs which require more than a high school diploma but less than a bachelor’s degree. Those roles include “Technician or mechanical support” (\$21.25 median hourly wage) and “Sales, marketing, or customer service” (\$32.37 median hourly wage). The other occupation that employers struggled to fill was “Management (directors, supervisors, vice presidents)” (\$43.21 median hourly wage).¹⁷

However, we know that the idea of a “skills gap” only tells part of the story. A significant “opportunity gap” for access to clean energy job opportunities also exists in Illinois. Recent analysis from the Brookings Institute lays out the reason why the “skills gap” is flawed:

“[The skills gap narrative] treats labor markets as transactional and assumes hiring processes are objective with regard to how employers recruit, sort, and assess the value of candidates. It ignores social dynamics such as race, class, age, and gender bias in the hiring process. Due to racial segregation and stunted access to professional networks, many talented Black, Latino or Hispanic, and Indigenous workers never get a real opportunity to compete for key jobs in the emerging economy.”¹⁸

¹⁶ This analysis includes non-clean energy employers. Energy Futures Initiative, NASEO, [“2020 U.S. Energy & Employment Report for Illinois.”](#) 2020.

¹⁷ Ibid.

¹⁸ Brookings Institute, [“The labor market doesn't have a skills gap--it has an opportunity gap.”](#) 2020.

WHAT DO WE KNOW ABOUT CLEAN ENERGY JOBS IN ILLINOIS?

Indeed, there is reason to be concerned about significant “opportunity gaps” for entering and advancing in the growing clean energy sectors across lines of race, gender, and other marginalized identities. More than 86% of people working in the solar industry in Illinois are white. Less than 20% are female and only 5% are African American and 11% Hispanic.¹⁹ While demographic information is not available for energy efficiency jobs, for the construction industry as a whole in the Chicago region, African American carpenters make up just 7.5% of the workforce, African American laborers, just 12.9% and plumbers 13.7%. For most construction occupations, women make up less than 5% of the workforce.²⁰

Equitable opportunities for working people and local businesses to participate in and benefit from a growing clean energy economy are not fated; they are determined by the decisions made (or not made) in the Illinois State House and the halls of Congress. Illinois should strive for a clean energy industry that is fully representative of the rich diversity of our residents. Doing so will require building inclusive “on ramps,” investing in skills training, and incentivizing equitable hiring and high job quality using targeted economic development investments.

In order to most effectively direct those investments in building greener and more equitable career pathways through public policy, it is first useful to understand the possible career pathways within clean energy jobs in Illinois. In the following section, we start to do just that.

¹⁹ The Solar Foundation, [“Solar Jobs Census 2019”](#) 2019.

²⁰ U.S. Bureau of the Census, [“Public Use Microdata Sample,”](#) 2019.

MAPPING CLEAN ENERGY CAREER PATHWAYS

The purpose of this career pathway information is to illustrate possible career pathways for just a small handful of clean energy jobs. We used a wide-variety of information sources to develop these charts and graphics and did our best to give examples of how one might enter and progress through a clean energy career. These are examples only and are our best synthesis of the available information. These are jobs that often require a high school degree to get started and allow for further on-the-job training and credentialing opportunities to progress to the next job. We would have liked to include additional jobs and career pathways in these charts but found that many jobs do not have clear opportunities for advancement. For example, solar sales is an entry-level position that we identified as a job that may not require a college-degree but found it difficult to identify a pathway for advancement within the industry. One of the policy recommendations discussed later in this report includes developing the systemic infrastructure needed for career advancement within these industries, ensuring that there are no “dead end” jobs in clean energy.

In the career pathway maps, we did our best to provide an idea of estimated wages. However, on the ground, wages vary according to employer, experience and area of the state. This type of wage information is not provided by government sources for local geographies as of yet and so should be taken to be estimates only.

SOLAR EXAMPLE CAREER PATHWAYS ●●●●●●●●●●

Example 1

Small Residential and Small Commercial Buildings

Solar Assembler/Basic Installer → Solar Installation Crew Chief²¹		
Education & Training Level	High-School Diploma or Equivalent often required; OSHA 10 certification useful	High-School Diploma or Equivalent often required; OSHA 10 certification useful; NABCEP certification useful. Most have skilled trade licensure and/or electrical training.
Technical Skills & Abilities	Basic math skills; Ability to work at heights; Ability to climb ladders with heavy equipment; Ability to work on roofs in heat and cold; Familiarity with hand tools.	Familiarity with practices and procedures in photovoltaic (PV) installation; Construction skills; Mechanical and electrical skills; Ability to read mechanical drawings.
Other Requirements	Driver's license and reliable transportation; May be required to pass a drug test.	Driver's license and reliable transportation; May be required to pass a drug test.
Workplace Navigation Skills	Reliability; Ability to follow directions.	Reliability; Ability to follow directions; Excellent communication skills.
Work Experience	Construction trade experience like carpentry, electrical, or roofing helpful.	Additionally, on-the-job experience as a solar assembler or installer.
Local Job Training Programs	Safer Foundation with Elevate Energy; Marion Lutheran with Elevate Energy and Grid Alternatives; Chicago Urban League; OAI with Millennium Solar; Austin People's Action Center; National Latino Education Center; Illinois Central College; Revolution Workshop; Midwest Renewable Energy Association; SOUL. Contact information for these programs can be found at the IL Solar for All webpage .	Coyne College; City Colleges of Chicago; Illinois Central College; Midwest Renewable Energy Association; College of Lake County.

²¹ The majority of the information in this chart comes from the Solar Career Map produced by irecsolarcareermap.org, supplemented by BLS, interview information and online job postings.

SOLAR EXAMPLE CAREER PATHWAYS ●●●●●●●●●●

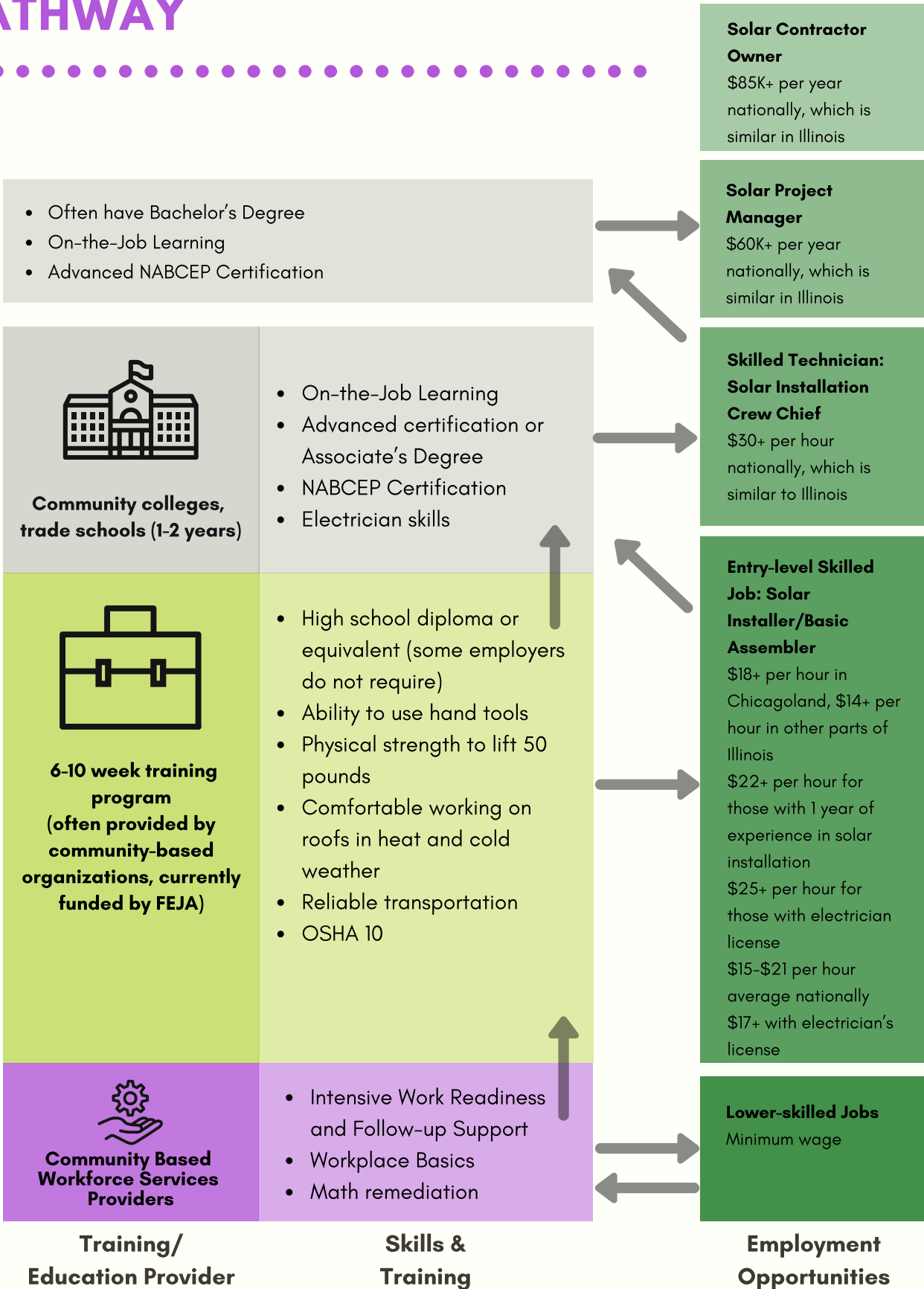
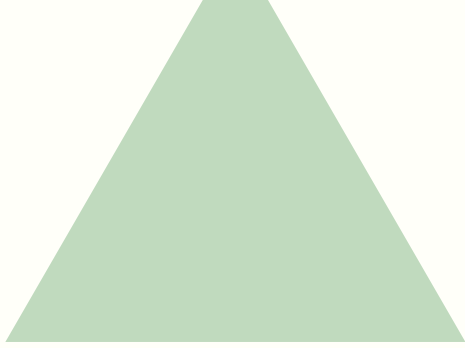
Example 2

Large Residential and Large Commercial Buildings

Electrician Apprentice → Journey-level Electrician²²		
Education & Training Level	High-School Diploma or Equivalent; at least 17 years of age; at least one Algebra class with grade C or better.	Completion of Electrician Apprenticeship
Technical Skills & Abilities	Aptitude test covering math and spatial reasoning.	Troubleshooting, repair and maintenance of specific PV equipment; Operation monitoring; Quality control analysis; Management of personnel and resources; Math skills; Physical dexterity;
Other Requirements	Driver's license; Authorized to work in the US; Pass drug test and physical exam; Oral interview. Must apply in person (when open, currently may be closed due to COVID.)	Driver's license and reliable transportation may be required.
Workplace Navigation Skills	Reliability; Ability to follow directions.	Judgment and decision making; Reliability; Ability to follow directions; Excellent communication skills.
Work Experience	None required.	5 years of experience as an electrician.
Local Job Training Programs	Jumpstart program offered by IBEW 134 for test preparation and job shadowing; Chicago Women in Trades; HACIA, ABC Community Builders, and St. Paul's Community Ministries provide pre-apprenticeship programs and test-prep. Chicago Hire360 provides test-prep and case-management services. Revolution Workshop provides construction training.	IBEW NECA Technical Institutes.

²² The information in this chart was supplied by Lu134.org and ibew134.org supplemented by O*net, BLS and interview information.

SMALL RESIDENTIAL SOLAR INSTALLER EXAMPLE CAREER PATHWAY



• • ENERGY EFFICIENCY EXAMPLE CAREER PATHWAYS

Example 1

Small Residential and Small Commercial Buildings

Weatherization Technician → Energy Auditor²³		
Education & Training Level	High-School Diploma or Equivalent often required; OSHA 10 certification useful; Construction training can be helpful.	High-School Diploma or Equivalent; On-the-Job Training, Certification is available through organizations such as the Building Performance Institute, the Residential Energy Services Network, and the Association of Energy Engineers.
Technical Skills & Abilities	Tool and Equipment Handling; Safety Protocols; Analytical Skills; Mechanical Skills; Physical Stamina and Strength; Troubleshooting.	Additionally, Troubleshooting; Complex problem solving; Math Skills; Analytical Skills; Ability to fit in tight spaces, such as attics and crawl spaces, and work on hands and knees.
Other Requirements	Driver's license and reliable transportation may be required; May be required to pass a drug test.	Driver's license and reliable transportation may be required; May be required to pass a drug test.
Workplace Navigation Skills	Detail oriented; Reliability; Ability to follow directions.	Customer Service; Reliability; Ability to follow directions; Excellent communication skills.
Work Experience	Construction experience like carpentry; HVAC or electrical helpful but not required.	Many energy auditors have work experience as weatherization technicians or other building construction experience.
Local Job Training Programs	Community colleges and trade schools offer training in HVAC, electrician skills, plumbing and other construction skills; Some public high schools have construction skills programs; Sustainable Options for Urban Living (SOUL) has Energy Efficiency Construction Technology training; Revolution Workshop for construction skills.	Priority Energy; Indoor Climate Research & Training, a program of the Applied Research Institute; EverGreen.

²³ The information in this chart was supplied by Cleanenergyeducation.org, supplemented by O*Net, BLS and interview information.

• • ENERGY EFFICIENCY EXAMPLE CAREER PATHWAYS

Example 2

Large Commercial and Large Residential Buildings

Carpenter Apprentice → Journey-level Carpenter²⁴		
Education & Training Level	High-School Diploma or Equivalent; at least 17 years of age. Unpaid pre-apprenticeship may be required.	Completion of Carpenter Apprenticeship
Technical Skills & Abilities	Aptitude test covering math and spatial reasoning.	Follow established safety rules and regulations and maintain a safe and clean environment; Study specifications in blueprints, sketches, or building plans to prepare project layout and determine dimensions and materials require; Measure and mark cutting lines on materials and shape or cut specific materials into specified measurements using hand tools, machines, or power saws; Install structures or fixtures such as windows, frames, floorings, trim, or hardware; Select and order materials.
Other Requirements	\$25 application fee; Driver's license and reliable transportation may be required; Pass a drug test; Original social security card; Reference letter from a local union or union contractor.	Driver's license and reliable transportation may be required.
Workplace Navigation Skills	Reliability; Ability to follow directions.	Judgment and decision making; Reliability; Ability to follow directions; Excellent communication skills.
Work Experience	None required	5 years of experience as a carpenter apprentice
Local Job Training Programs	Chicago Women in Trades, HACIA, ABC Community Builders, and St. Paul's Community Ministries provide pre-apprenticeship programs and test-prep; Chicago Hire360 provides test-prep and case-management services; Revolution Workshop provides construction training.	Chicago Regional Council of Carpenters Apprentice and Training Program; Mid-Central Illinois Regional Council of Carpenters Joint Apprenticeship and Training Committee; Southern Illinois Carpenters' Joint Apprenticeship Program.

²⁴ The information in this chart was supplied by Carpentersunion.org, supplemented by O*Net, BLS and interview information.

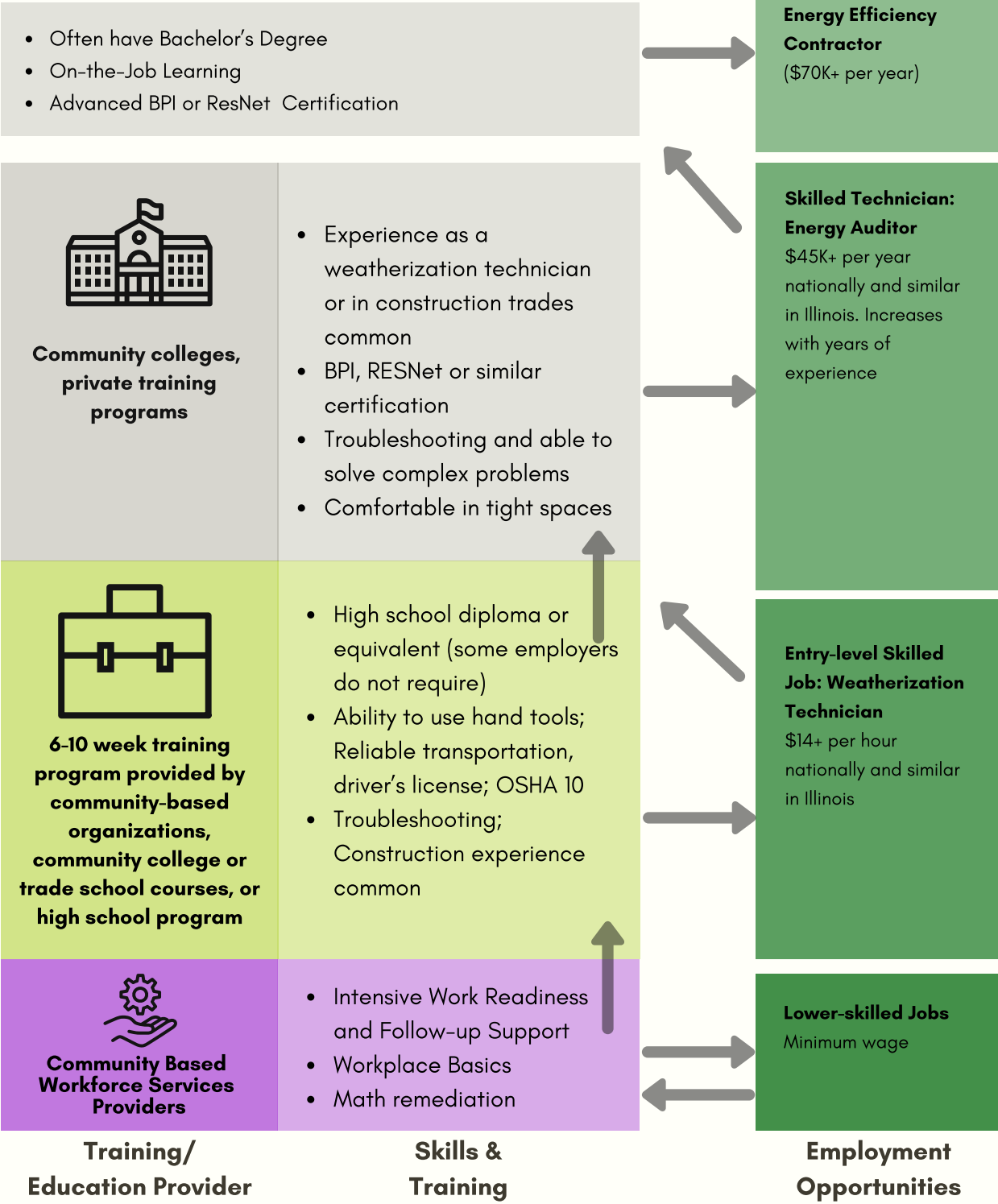
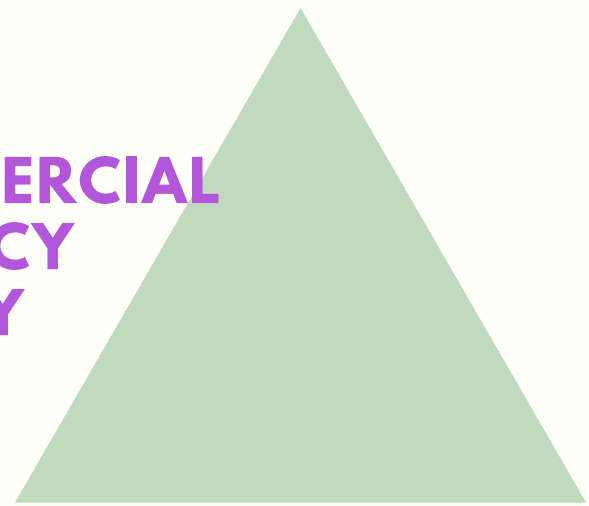
• • ENERGY EFFICIENCY EXAMPLE CAREER PATHWAYS

Example 3

CNC Operator → Machinist²⁵		
Education & Training Level	High-School Diploma or Equivalent; On-the-Job training; OSHA 10 certification useful.	High-School Diploma or Equivalent; On-the-Job Training; Trade school or community college certificate.
Technical Skills & Abilities	Physical Stamina and Strength; Math Skills; Analytical Skills; Troubleshooting; Tool and Equipment Handling; Mechanical Skills.	Additionally, Analytical Skills; Dexterity; Math Skills; Computer Application Experience; Physical Stamina and Strength; Troubleshooting; Safety Protocols; Tool and Equipment Handling; Design and Blueprint reading; Use of a variety of welding and cutting tools; Programming and function of computer numerically controlled (CNC) machines.
Workplace Navigation Skills	Detail oriented; Reliability; Ability to follow directions.	Detail oriented; Reliability; Ability to follow directions; Good Judgement.
Work Experience	None required.	1-2 years as a Machine Operator.
Local Job Training Programs	Instituto Progreso Latino; Jane Addams Resource Corp; West Side Tech; Humboldt Park Vocational; OAI Inc.; Greater West Town.	Tooling and Manufacturing Association; Many community colleges, including Daley College, Oakton, Waubensee, Illinois Central, College of Lake County and others.

²⁵ The information in this chart was supplied by Cleanenergyeducation.org supplemented by O*Net and BLS.

SMALL RESIDENTIAL/COMMERCIAL BUILDING ENERGY EFFICIENCY EXAMPLE CAREER PATHWAY



POLICY RECOMMENDATIONS

If our state leaders heed the necessary call to invest in the business of clean energy, it must also invest in the growth and inclusivity of the clean energy workforce. Illinois policymakers, employers, and community organizations can support the creation and maintenance of equitable clean energy pathways through the following policy recommendations:

1. Intentionally design workforce training programs to connect women and BIPOC people to quality clean energy employment with opportunities for advancement.

In order to be equitable and inclusive, workforce training programs in clean energy must include the following elements:

- Prioritizing funding opportunities and oversight power for organizations situated in and led by members of environmental justice communities, BIPOC residents, and members of low-income communities;
- Building robust “on ramp” programming that focuses on first steps like career exploration, career readiness training, and digital literacy to create bridges from basic skills to better paying jobs;
- Designing and building programming around “career pathways” such as the examples offered in this report, ensuring that there are no “dead-end” jobs in clean energy in Illinois and that all workers, no matter where they start, have the opportunity to advance to higher wage jobs;
- Ensuring that there are sufficient funds available to offer paid training opportunities and offer resources to address acute barriers to employment (such as transportation, childcare, housing, and technology access);

POLICY RECOMMENDATIONS

- Creating incentives for businesses to hire and retain graduates of training programs as a condition of receiving public subsidies; and enforceable clawbacks for when commitments aren't met;
- Requiring robust data and outcome reporting to ensure equitable program ingress and outcomes.

2. Integrate a clean energy jobs initiative into existing and public workforce development systems and labor partnerships.

Illinois already has a robust workforce development ecosystem across various state and local agencies, labor unions, and privately-funded efforts. However, that system is not funded at the scale to meet the needs of all the job seekers who could benefit from it - the state's WIOA Title 1 Adults Services system only served around 10,000 job seekers in Fiscal Year 2018²⁶ - compare that to the over 2.4 million people who filed for unemployment in Illinois just sometime between March and November of 2020. Building a clean energy career pathways pipeline should leverage the existing resources of that system, while also seeking to fill gaps that may exist or build in even more robust equity-focused strategies. This requires:

- Creating sustainable, state-level funding for clean energy training programs in every region of the state;
- Coordinating administration of state-funded clean energy workforce programs with other federally-funded workforce infrastructure and administration;
- Where possible, aligning designations and definitions (for example, aligning definitions of "minority or women owned business" across different programs) with other laws that govern state workforce development systems and funding streams.

²⁶ U.S. Department of Labor, "[WIOA Performance Results from the United States Department of Labor for Illinois, Program Year 2018](#)," Accessed November 16, 2020.

3. Support [industry partnerships](#) in key clean energy sectors.²⁷

Clean energy jobs initiatives should create or expand on regional partnerships organized by industry sector. Including business and labor, community colleges, workforce investment boards, community-based organizations, community members, and economic development agencies, such partnerships can undertake analyses critical to green industry development and understand workforce issues at the regional level. Industry partnerships also help ensure that training programs are designed to meet the skills needs of employers while also acknowledging and addressing systemic barriers in hiring, on-boarding, and job retention that have resulted in exclusion of certain communities from employment opportunities within the industry. They can and should also develop shared strategies among partners to ensure equitable retention among employees from historically marginalized groups.

4. Incentivize job quality by tying economic development dollars to equitable outcomes.

As state leaders step forward to champion clean energy jobs and green economies, it is critical that states develop concrete plans to connect the two. Worker training programs for renewable energy and energy efficiency industries must be explicitly linked to economic development and job creation. The danger, one unfortunately present in past green jobs efforts in Illinois, is that service providers will rush to create green workforce development programs, producing skilled workers for jobs that do not yet exist in sufficient numbers or permanence. A clean energy career pathway should always have a job at the end of the road.

²⁷ There are numerous studies and resources which provide more details on the concept of industry partnerships and sectoral strategies, including the following: [Characteristics of High Performing Industry Partnerships by the National Fund for Workforce Solutions](#); [Tuning into Local Labor Markets: Findings from The Sectoral Employment Impact Study by Public/Private Ventures](#); and [Raising Job Quality and Skills for American Workers: Creating More-Effective Education and Workforce Development Systems in the States](#) by the Hamilton Project.

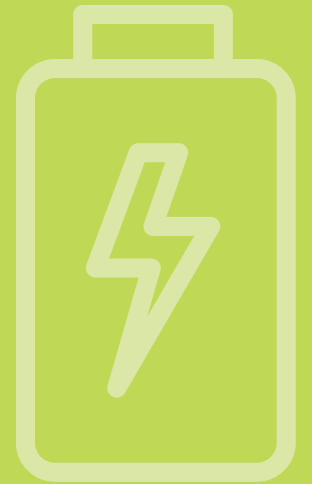
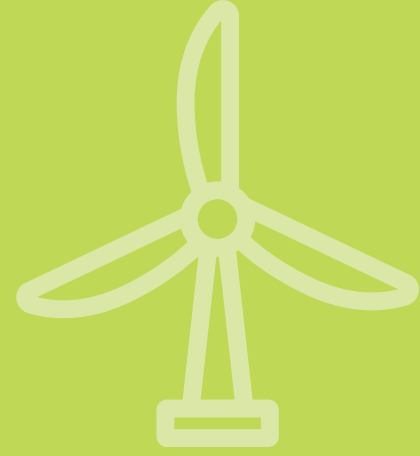
POLICY RECOMMENDATIONS

One specific strategy for ensuring equitable hiring practices is to invest in the establishment and growth of businesses owned by BIPOC, women, and people from environmental justice communities themselves. This could include contractor incubator programs, capital investment programs, and strategic, equity-focused tax credits for BIPOC-owned companies that pay prevailing wages and hire workforce program trainees. BIPOC communities are often excluded from public investments in clean energy, which could help contribute to broader consumer savings and business investments that stimulate and support border economic development efforts in communities.

CONCLUSION

With the support of policymakers, Illinois has the opportunity to address the existential threat of climate change, supercharge a growing sector of its economy with equity at the center, and open up career opportunities to thousands of people in clean energy. In order to do this, however, Illinois policymakers must pass bold climate legislation that not only meets ambitious environmental standards and invests in businesses that can lead to a clean energy overhaul of our state's economy and energy systems, but also invest in workers and open up opportunities to the BIPOC communities, environmental justice communities and other marginalized people that have been left out of economic growth. At the time of this report's publishing, the best proposal to do so is the Clean Energy Jobs Act (CEJA), a bill that would transition Illinois to 100% clean energy by 2050, which also is the only current legislative proposal that is informed by the voices of directly impacted Illinois communities and includes the bold and equitable workforce investments and best practices outlined in the section above.

In addition to passing CEJA, Illinois must prepare itself for potential investments in clean energy workforce investments that could come as part of future federal economic stimulus under a Biden administration. Without creating the infrastructure of a well-supported, organized, and diverse workforce, a vibrant business environment which includes thriving BIPOC-owned businesses, and established industry partnerships, Illinois may not be as well positioned to utilize new federal clean energy investments to continue to build equitable growth and achieve sustainability as we urgently need to be.



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