

Policy Brief:

Workforce Development and Labor Protections



Climate and energy policies can generate family-sustaining careers for communities that have suffered from economic marginalization for decades.

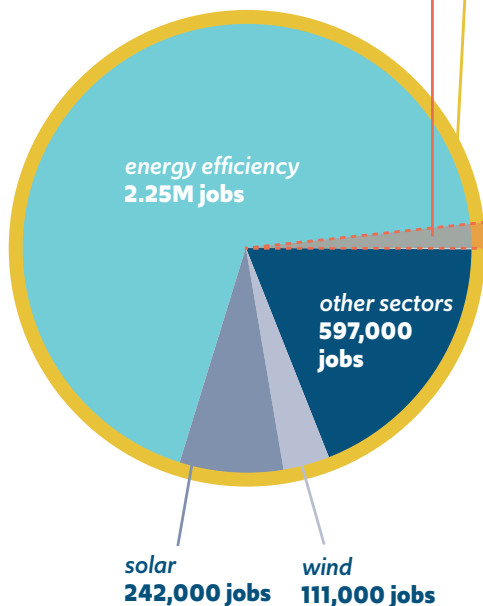
We need policies that help train and prepare folks to be part of a clean energy economy, while creating dignified work opportunities for people of all backgrounds. Clean energy policies must include an explicit focus on supporting the employment of low-income communities and communities of color—we can not leave a generation of people behind in the transition to a green and inclusive economy, taking care of people and our ecosystems.

**THE Climate +
Clean Energy
EQUITY
FUND**

HOW DO CLEAN ENERGY JOBS STACK UP AGAINST COAL?

3.2M total clean energy jobs in the U.S.

vs. 50,300 coal industry jobs



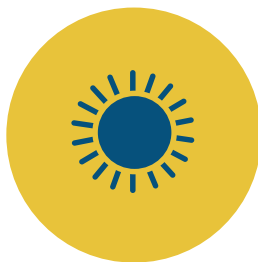
Throughout this brief, we use the term green, clean and inclusive economy to reflect the wide range of economic opportunities that should be considered as part of the transition to a decarbonized, non-extractive economy. Our notion of what constitutes work in the green and inclusive economy should not be limited to jobs in renewable energy and energy efficiency sectors, although those are clearly important. Our vision can and should include a range of jobs such as public transit, forestry, water and wastewater services, watershed restoration, green janitorial services—work that contributed to taking care of people and our ecosystems. While the renewable energy economy is certainly growing, and low-income communities and communities of color can't be left out, it is unrealistic to assume all jobs that our communities need will be generated in these sectors. Given the lack of capacity to explore every job sector, the majority of the examples in this brief relate to renewable energy. Many of the tools, such as Community Workforce Agreements, apply to sectors beyond energy. Future research is needed to develop the potential solutions for this broader vision of dignified employment in a non-extractive economy.

Snapshot of the renewable energy economy nationwide

In 2018 there were about **3.2 million jobs** in the clean energy economy, which include energy efficiency, solar, clean vehicles, wind, and energy storage.¹

This compares to **50,300 employees** in coal industry as of February 2017.²

Jobs in the energy sector overall account for **7% of employment** in the US, with jobs in the renewable sector accounting for about half of that number.



SOLAR

242,000 jobs

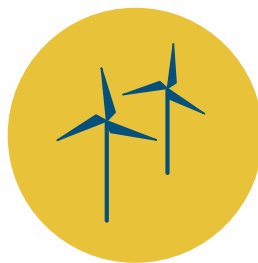
In the solar industry in 2018.³ The majority of these jobs are in installation.⁴



ENERGY EFFICIENCY

2.25 million jobs

Energy efficiency is the largest and fastest growing sector, accounting for 2.25 million jobs. Over 60% of these jobs are concentrated in construction.



WIND

111,000 jobs

Wind is the third largest source of renewable energy jobs.⁵



OTHER

Other main areas of job growth include clean vehicle manufacturing and fuel efficiency, grid modernization, and energy storage.⁶

All these statistics are at the national level and unless otherwise noted, for 2018. The particular labor market of each state should be explored when researching and developing policies.

Policy Frameworks *Good Jobs*



POLICY CHALLENGES

Lack of strong job standards

While this exists in many renewable energy sectors, it is particularly pronounced in the residential solar market, where the workforce is both not unionized and there are no clear workforce standards, which leads to lower-paying jobs that are often short-term or stop-start.

Lack of career pathways

Often times job training programs are not directly connected to job opportunities. Additionally, many job opportunities are short-term, low-wage or even volunteer jobs, none of which are viable options for low-income job seekers.

Important areas of renewable energy production are not unionized, such as rooftop solar projects. While efforts for unionization need to be supported and expanded, it is equally important to also have strong workforce standards in any job sector, regardless of unionization.

Several sectors in the emerging green economy have been deregulated, such as the trucking industry, and thus predominantly use independent contractors. It is harder to implement workforce standards, environmental mitigation measures or organize independent contractors, who also face more precarious, unfair and unsafe working conditions. There is an opportunity to organize this sector and raise job standards.

POLICY OPPORTUNITIES

Ensure high quality, career pathway jobs in the climate and energy sector and other high growth job sectors

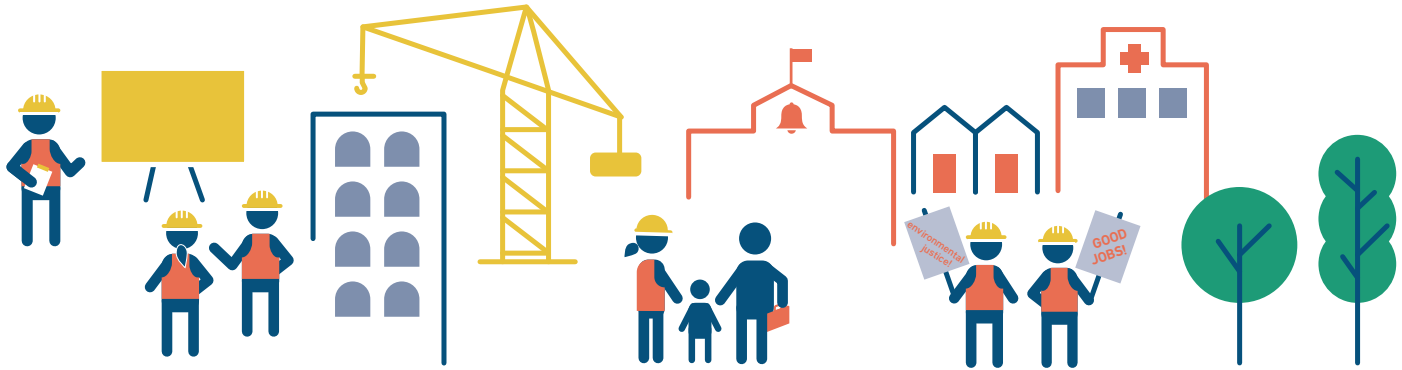
Climate and energy jobs must start with basic job standards: ensuring family-sustaining wages; jobs that have clear links to career pathways; include benefits; and support prevailing wage and workforce standards across the sector. Additional job standards that must be considered include ensuring worker safety, including proper health protections, adequate breaks, etc. In the workforce world, these are often called “high road” jobs.

Ensure access to high quality jobs, particularly for low-income communities, communities of color, women, and people facing barriers to employment

Workforce development policies must make a clear effort to directly connect people of color, people in impacted communities, low-income people, and people who face employment barriers to jobs that meet the standards articulated above. Without these kinds of clear policy levers, many people who are already locked out of family-sustaining employment opportunities will continue to face the same barriers in a green economy.

- 1 [CleanJobsAmerica](https://www.e2.org/wp-content/uploads/2019/03/CleanJobsAmerica), Environmental Entrepreneurs <https://www.e2.org/wp-content/uploads/2019/03/CleanJobsAmerica>
- 2 According to the Bureau of Labor Statistics, coal industry jobs account for 50,300 employees, as of February 2017
- 3 National Solar Jobs Census, 2018. <https://www.thesolarfoundation.org/national/>
- 4 [Renewable Energy and Jobs Annual Review 2018](https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2018/May/IRENA_RE_Jobs_Annual_Review_2018.pdf), International Renewable Energy Agency, pg 16. https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2018/May/IRENA_RE_Jobs_Annual_Review_2018.pdf
- 5 <https://www.e2.org/wp-content/uploads/2019/03/E2-2019-Clean-Jobs-America.pdf>
- 6 <https://www.e2.org/wp-content/uploads/2019/03/E2-2019-Clean-Jobs-America.pdf>

Thriving Communities



POLICY CHALLENGES

Lack of targeted hire programs

Many people face a range of barriers to high-wage employment, such as the formally incarcerated or English language learners. Without clear targeted hiring efforts, people who have been systematically locked out of good jobs will face the same issues, in the green economy as experienced in other sectors. For example, the solar workforce is 73 percent white and 74 percent male.⁷

Over-reliance on utilities

Many renewable energy jobs focus on large-scale job creation, for instance through utility-scale solar. While these jobs often have the best job standards, this strategy can re-entrench utility dominance over the energy system. Utilities generally lack a desire to advance social equity and, in worse case scenarios, function as profit focused institutions that are promoting continued fossil-fuel use at the expense of social and environmental benefit. There are a growing number of environmental and climate justice groups that are working towards a decentralized model of renewable energy generation, which has the potential to generate wealth at the local level (see the utility policy brief for more in-depth discussion).

Current jobs that limit long-term transition

Many unions are invested in industries that have negative climate and environmental impacts, such as nuclear, renewable natural gas, carbon capture and sequestration (CCS) or "clean coal," and push for these industries to be designated as "clean" energy sources.

These energy sources can have many negative environmental and social equity impacts, as well as dubious or non-existent climate benefits, but often unions overlook these issues because the industries either have unionized workforces already or they have potential to generate unionized jobs and many renewable energy companies fight unionization efforts.

POLICY OPPORTUNITIES

Just Transition for both workers and communities who are impacted by the transition to a renewable energy economy, and those that are highly impacted by climate change

If any particular fossil fuel facility is being phased out or closed, the workers in the facility, the surrounding community and the local government will need support to offset the economic impacts and develop new sources of jobs and local revenue. These supports include a range of options, from training to retirement funds. In addition, workers in industries that are heavily impacted by climate change may also need targeted support. For example, agriculture will face many challenges related to climate change. Farmworkers, who already lack significant labor protections, should have additional protections as the industry changes.

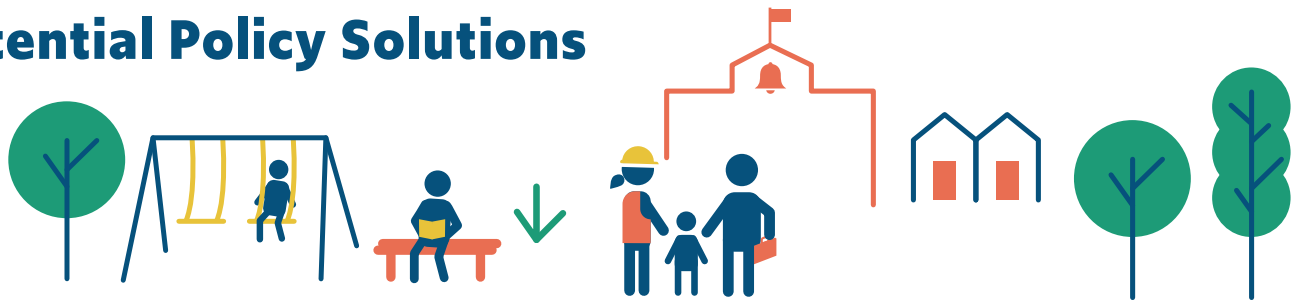
Calibrate policies and goals to community impacts, conditions and visions

Every community has unique circumstances, whether it is the local economic drivers, polluters in the area, or the people who need additional support in job placement. Communities will also have different visions for green and inclusive development in their region, and will want to prioritize different types of economic growth. The employment impacts of climate change and declining fossil fuel use will be felt in extremely different ways depending on geography and the local, regional and statewide political economy. Using county-level data can help illuminate the specific impacts, constraints and opportunities in a given area. For example, in Washington state, the state labor council commissioned a study on the employment impacts of meeting state GHG emission reduction goals. They found that about 5,400 workers would be impacted, which would almost entirely be offset by the number of workers who would be voluntarily moving into retirement in the same timeframe, and created a series of policy proposals to further address employment and economic development issues.⁸ To ensure policies are both effective and support self-determination, solutions must be crafted that address the data on the specific place-based conditions and align with the community needs and vision.

⁷ National Solar Jobs Census, pg 49

⁸ A Green New Deal for Washington State, Political Economy Research Institute. www.peri.umass.edu/component/k2/item/1033-a-green-new-deal-for-washington-state

Potential Policy Solutions



Ensuring high quality, career pathway jobs in the climate and energy sector and other high growth job sectors

1. Project Labor Agreements in the construction sector:

Project Labor Agreements (PLAs): “are collective bargaining agreements between building trade unions and contractors. PLAs govern the terms and conditions of employment for all craft workers—union and nonunion—on a construction project,”⁹ in exchange for eliminating any potential work stoppages. They tend to include requirements such as use of apprenticeship programs, prevailing wages and benefit packages. They have long been used for public projects and large construction projects across the country. They are extremely effective at guaranteeing the quality of jobs. PLA’s are a key tool because so many jobs in the renewable energy sector are construction-related. PLA’s are negotiated specific to a project, thus meeting localized conditions and needs. PLA’s can also be instrumental in enabling access to quality jobs by inclusion of targeted or local hiring agreements. This is called a Community Workforce Agreement, and is discussed in number 2.

2. Community Workforce Agreements (CWA’s) for construction:

CWA’s are one of the most effective tools at securing both hiring and job standard agreements between community groups, unions and businesses. CWA’s are “a formal, legally binding labor-management agreement that is negotiated between public or private construction end-users, the local Building Trades Council and prime contractors covering specified projects”¹⁰ in a particular geographic area. They typically include a PLA, plus local hire provisions. They are also unique in that they can also include a broader range of community needs, such as supportive services for workers, and community-based organizations can be signatories.¹¹ In addition to the PLA, CWA’s often include language on specific percentages of the total workforce that should come from particular categories of workers, such as formerly incarcerated people, people from a particular geographic region, EJ communities, and percentages of people who should be hired from particular apprenticeship programs.¹²

3. Procurement standards:

These policies create standards for materials purchased through public projects. Traditional procurement standards require all or a certain portion of materials purchased with public funding to be manufactured or produced in the U.S. They can also give additional credits to companies that use in-state companies. These standards can apply broadly to a range of public works projects, as well as specifically to renewable energy policies. A newer type of procurement standard is a “Buy Clean,” policy, which can set a carbon footprint threshold for all or part of materials purchased for a publicly-funded program, thus helping to create a market for low-carbon products and ensuring public monies are spent on climate-friendly materials.¹³ The two types of procurement standards can be combined to maximize both employment and economic development impacts and climate change goals.

4. Responsible contractor and employer standards:

These policies require contractors or employers who receive public funding, require public approvals, or benefit from public investment to meet pre-established minimum standards for working conditions, including such items such as demonstrating workplace safety, full wage and labor law compliance, provision of prevailing wage, and provision of health benefits.¹⁴ They can apply to public climate and clean energy investment streams or any investment using public funds.

⁹ <https://aflcio.org/what-unions-do/empower-workers/project-labor-agreements>

¹⁰ https://www.forworkingfamilies.org/sites/default/files/publications/2010_CWA_Guide_0.pdf

¹¹ <http://workingeastbay.org/wp-content/uploads/2018/01/Prop-39-Report-Website2.pdf>

¹² https://www.forworkingfamilies.org/sites/default/files/publications/2010_CWA_Guide_0.pdf

¹³ <https://www.bluegreenalliance.org/wp-content/uploads/2017/09/MakingTheGrade-2.pdf>

¹⁴ https://www.doleta.gov/business/incentives/opptax/docs/WOTC_Fact_Sheet.pdf

A Just Transition for both workers and communities that are impacted by both the transition to a renewable energy economy, and those that are highly impacted by climate change

1. Funding for dedicated training and employment placement services for impacted workers:

This can include prioritizing employment in the clean energy sector, retraining costs for a certain period of time, and peer counseling services during transition. Support can also include a broader range of services, such as free personal and/or family counseling, peer support, or other social service referrals.

2. Worker support benefits after job loss for impacted workers:

Policies like full wage replacement for a set period of time, providing health benefits, and pension contributions.¹⁵ Ensuring pensions for all impacted workers has emerged as a particularly critical issue¹⁶. Wage insurance and unemployment insurance can also be explored. Unemployment Insurance partially replaces lost wages during a period of involuntary unemployment. Wage insurance is received after a person secures a new job, and is designed to make up the difference between a pre-layoff job and a lower reemployment wage.¹⁷

3. Tax credits for employers that hire dislocated workers, veterans and other target populations:

Tax credits are a common policy tool to encourage employers to hire people from particular target populations. For example, the Work Opportunity Tax Credit offered tax credits to employers who hire veterans, qualified formerly incarcerated people, qualified long-term recipients of food assistance or long-term unemployment, among others.¹⁸ Tax credits have been proposed for employers who hire workers who have been dislocated due to fossil fuel plant closures.¹⁹

¹⁵ https://www.sos.wa.gov/_assets/elections/initiatives/finaltext_1482.pdf page 11

¹⁶ See for example <http://umwa.org/take-action/preserving-our-pensions/> and *A Green New Deal for Washington*

¹⁷ <https://www.nelp.org/blog/is-wage-insurance-a-worthwhile-option-for-displaced-workers/>

¹⁸ https://www.doleta.gov/business/incentives/opptax/docs/WOTC_Fact_Sheet.pdf

¹⁹ <https://www.sanders.senate.gov/download/worker-just-transition-act-summary?inline=file>

²⁰ <http://www.powerplusplan.org/power-initiative>

²¹ http://appvoices.org/resources/AML-RAC/AML_RAC_report_Many_Voices_Many_Solutions-11-13-18-lo-res.pdf

4. Dedicated funds for new economic development in community or region impacted by either a plant closure, or climate change more broadly:

The loss of revenue from a fossil fuel facility will not be immediately replaced; the companies not only provide a tax base for the area but may make specific contributions to local development, such as schools or otherwise. Thus, it may be necessary to initiate a broader range of economic development initiatives that can help stabilize the community while new economic activities grow. Examples of dedicated funds that have been enacted include:

- The federal POWER Initiative, which provides economic development support to communities struggling with the decline of coal. It has invested \$73 million in community groups for a range of efforts, including job placement services, expanding broadband access, strengthening local food systems, addressing substance abuse, and supporting tourism and recreation.²⁰
- Abandoned Mine Land Pilot Program, which invests public dollars in projects that reclaim abandoned coal mines for economic development activities, while employing former miners.²¹

The 2019 Energy Transition Act passed in New Mexico includes \$40 million for economic development, severance and retraining for people who will lose their jobs after the closure of facilities such as the coal-fired San Juan Generating Station. The money will be distributed through three new funds: the Indian Affairs Fund, the Economic Development Assistance Fund, and the Displaced Worker Assistance Fund. The legislation also allows funds associated with its implementation be used for mine reclamation at the coal mines, and requires the creation of a community advisory committee from the impacted community.²²

The settlement that led to the closure of one of Washington's coal plants, the Centralia Coal Plant, established a Centralia Coal Transition fund, with annual contributions adding up to \$55 million by 2023. The fund supports \$10 million for weatherization and energy efficiency projects; \$20 million for education, job training, and economic development projects (and \$5 million set aside for Centralia plant workers); and \$25 million for energy technology investments, all focused on the geographic area surrounding the plant.²³

Ensuring access to high quality jobs, particularly for low-income communities, communities of color, women, and people facing barriers to employment

1. Targeted Hiring / Local Hiring:

Targeted or local hiring policies create a system to expand access for particular groups of workers, such as women, people of color, low-income people or people from environmental justice communities or another specific geographic area. Typically, employers notify designated community based organizations or training programs about job openings, and the groups refer local job applicants to the jobs, and can be targeted to focus on particular communities. For example, PUSH Green, a community-based organization in Buffalo, is contracted with the state to provide workforce development services for public energy efficiency and renewable energy investments.²⁴ The employers agree to review applicants referred from the partners first.²⁵ Targeted hiring is strongest when linked to CWA's, but does not necessarily have to be.

2. Workforce Training & Apprenticeship Programs:

Workers who want to develop new skills to be competitive in the green economy need training, skills development and opportunities to enter new labor markets. Workforce training programs are most successful when integrated into an already-existing workforce system that both leverages existing programs, and can create opportunities to green traditional occupations through new skills, rather than developing narrow and single job categorizations geared towards a niche in the green economy.²⁶ These programs can all be crafted to include specific goals or provisions that prioritize recruiting participants from environmental justice communities or other target populations, such as women, formerly incarcerated people, or former foster care youth. Programs can also be designed to include community-based organizations, particularly in recruitment but also potentially program delivery, if there is not a union partner. This can be a benefit because including trusted community organizations who have relationships with hard-to-reach communities can be critical for program success. There are two key forms of workforce training: Apprenticeship programs and more generalized training programs.

3. Pre-Apprenticeship and Apprenticeship Programs:

Within the construction industry, there exists a strong model of Apprenticeships that are highly effective at improving wages and job placement. Apprenticeships are run by unions (most commonly Building Trades), and provide paid, on-the-job training experience.²⁷ The programs calibrate to the demand and needs of the industry, so they don't over enroll participants for non-existent jobs, or become outdated. Apprenticeship programs have direct relationships with employers, who in some cases have agreements to hire from the programs and/or are helping cover the program costs. Apprenticeship programs can also be linked to community-based Pre-Apprenticeship programs, which prepare people to be able to access the competitive Apprenticeships. These provide an orientation to an industry and basic job readiness skills. They are important because many folks from low-income communities and communities of color face a range of barriers to entering the workforce, from economic stability to knowledge of workforce professional standards. Pre-apprenticeship programs work best when directly linked to specific, registered Apprenticeship programs.²⁸ While the construction industry has the most established apprenticeship programs, supporting the expansion of the model into other industries is needed.

²² <https://www.greentechmedia.com/articles/read/new-mexico-100-clean-energy-law-community-concerns#gs.78asu6>

²³ <https://energytransition.org/2018/01/washington-state-leaves-coal-behind-but-not-its-workers/>

²⁴ <http://www.pushgreenwny.org/workforce>

²⁵ <http://laborcenter.berkeley.edu/workforce-issues-and-energy-efficiency-programs-a-plan-for-californias-utilities/>

²⁶ <https://www.forworkingfamilies.org/sites/default/files/publications/TOOLKIT%20Good%20Jobs%20in%20a%20Clean%20Energy%20Economy.pdf>

²⁷ <https://aceee.org/files/proceedings/2012/data/papers/0193-000333.pdf>

²⁸ <https://aceee.org/files/proceedings/2012/data/papers/0193-000333.pdf>

²⁹ <https://www.ibew309.com/Uploads/UploadedFiles/Documents/2017/Future%20Energy%20Jobs%20Act%20-%20FEJA.pdf>

³⁰ <http://www.buildingskills.org/programs/greenjanitor/>

³¹ https://cwdb.ca.gov/special_committees/sc_green_collar_jobs_council/

4. Workforce Training Programs:

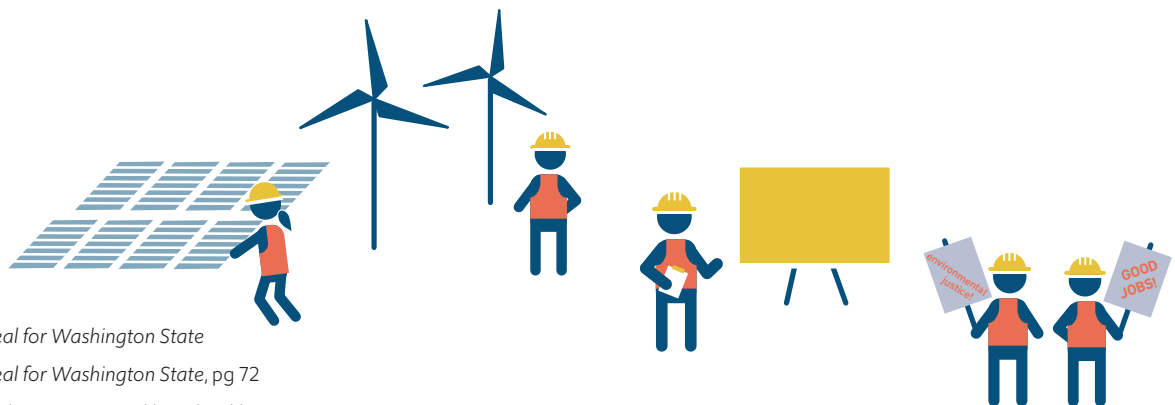
Not all industries have a clear Apprenticeship pathway established, and this is where broader workforce training programs can be critical. Ideally, these programs are linked to employers and/or the relevant unions. For many low-income people, community colleges provide a critical pipeline into careers, and they can be a critical place to integrate green job training programs. For example, in Illinois, International Brotherhood of Electrical Workers will be developing a solar training curriculum for implementation at 6 community colleges. The program will also include a high-school curriculum component at 6 underserved schools.²⁹ Community-based organizations can also deliver green job training programs. Another focus for green workforce training programs can be new skill development for currently employed people. This recognizes that not all green jobs need to be in renewables or energy efficiency, or that everyone will be able to get jobs in these sectors. For example, the Green Building Council-Los Angeles and SEIU partnered to create a “Green Janitor Education program.” The program meets the growing need for people who are familiar with operations and maintenance at green buildings, including LEED certified buildings. Janitors develop new skills through the training to access more job opportunities.³⁰

5. Clean Energy, Workforce and Jobs Councils:

Many states lack a coordinated place where employers, clean energy industry representatives, workforce practitioners and community-based organizations can discuss policy implementation and best practices. Some type of overarching entity can be helpful to ensure that programs roll out successfully and that employers are meeting the workforce goals. They can also serve as a way to support contractors and clean energy entrepreneurs to adopt new technologies and practices, or develop programs that address employer and employee needs. California had a “Green Collar Jobs Council” that was charged with developing “recommendations and creates strategies for comprehensive and effective workforce training opportunities to help prepare California’s current and future workforce to meet the skills demand from businesses supporting the energy efficiency and clean energy sectors,” and included representatives from labor, utilities, the solar industry, and elected officials.³¹ Mandates to these types of council can include developing contractor incubators targeting disadvantaged businesses and contractors, support training and job placement assessment for low-income communities and communities of color.

Other policy solutions that can be explored include programs that support the early retirement of fossil fuel workers.³² Another idea that has gained traction, especially with its inclusion in the Green New Deal, is the idea of a “re-employment or jobs guarantee,” also proposed by the Washington labor study. It would create a government backed guarantee that would place impacted workers in new clean energy jobs created by large-scale public energy investments, or within the substantial public sector workforce in the state.³³ A final idea is to create a specific designation for communities impacted by the transition away from fossil fuels, which then be tied to state and federal grants or tax incentives.³⁴ These ideas have not been implemented, so their effectiveness is hard to gauge.

While all these examples apply to fossil fuel impacted areas or regions, they could be broadened to include industries, workers or places that will be particularly impacted by the impacts of climate change, such as agricultural regions or workers.



³² A Green New Deal for Washington State

³³ A Green New Deal for Washington State, pg 72

³⁴ <https://www.sanders.senate.gov/download/worker-just-transition-act-summary?inline=file>