

Residential Building Decarbonization Job Quality & Labor Standards Toolkit

Crafted by Rising Sun Center for Opportunity and the
Bay Area Residential Decarbonization High Road
Training Partnership

December 2024



HIGH ROAD

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Introduction

This Job Quality and Labor Standards Toolkit is an implementation resource crafted by the [Bay Area Residential Decarbonization High Road Training Partnership](#) (The Partnership). It is designed to be a Toolkit for implementing High Road labor standards, (or other creative policy and program designs to create “good” careers), in publicly-funded or subsidized residential building decarbonization programs in your region. This Toolkit is intended to support policy-makers, program designers, and program implementers in designing, launching, and leading High Road residential building decarbonization programs in the Bay Area, and beyond.

The Partnership has been informed by working in close collaboration with many Official and Listening partners representing organized labor, union and non-union contractors, residential program administrators which include local governments, CCAs and RENS, and equity and building decarb experts. The Partnership’s Official Members include:

- Construction Trades Workforce Initiative
- BayREN
- Building Electrification Institute
- City of San Francisco: Environment Department
- City of Berkeley: Office of Energy and Sustainable Development
- National Association of Minority Contractors
- nomada coaching & consulting
- Revalue
- Rising Sun Center for Opportunity
- StopWaste
- Contractor Representatives:
 - Bear Mechanical
 - Enso Building Solutions
 - KelAire Heating & Cooling
 - West Coast Green Builders
- SMW Local 104 Representative

The Partners recommend the use of High Road labor standards to improve job quality and equitable job access for contractors and workers as public funding increasingly drives efforts to reduce greenhouse gas emissions from buildings. By pairing these climate initiatives with High Road job quality standards, we aim to support the creation and expansion of high-quality jobs that not only meet the pressing demands of environmental sustainability but also offer stable, sustaining, and equitable career opportunities for priority workers.

Our Partnership recommends required or incentivized labor standards in each of the following categories:

- Fair Wages and Benefits, including wages, healthcare, and retirement
- Regional and Targeted Hire
- Compliance and Accountability
- Training, Certification, and Career Advancement

The Partnership's recommended labor standards for the residential decarbonization sector, approved in August, 2024, can be found [here](#) in this Toolkit. The design of these recommended Labor Standards was informed by two industry papers commissioned by the Partnership to address key information needs. The papers highlight the demand for skilled workers in residential building decarb and the impact that wage and benefits standards would have for those workers and the broader economy.

Industry Analysis Papers

1. [Industry and Workforce Overview](#)
2. [Economic Impacts of a Wage and Benefit Standard](#)

The key takeaway from these studies is that including a wage and benefit standard in the design of residential decarbonization programs is a **win win win win win for workers, contractors, the climate, taxpayers, and the economy.**

Key findings include:

- "A prevailing wage standard would result in an average increase of \$14.50 per hour and \$25,951 annually among workers who would be impacted. This represents a 71 percent increase in these workers' annual earnings. Collectively, this would represent between \$61 and \$100 million in additional earnings for Bay Area residential decarbonization workers each year."
- "Latinx residential decarbonization workers in the Bay Area, who make up a majority of workers in the industry, earn only 65 cents for every dollar that White non-Hispanic workers earn. A prevailing wage standard or a minimum-wage-based labor standard would eliminate most, if not all, of this racial wage gap for workers in the bottom half of the wage distribution."
- "A prevailing wage standard would increase local GDP by between \$115 and \$189 million and a minimum-wage-based labor standard would increase local GDP by between \$83 and \$139 million as workers would spend their additional earnings on housing, transportation, food, and other goods and services in the local economy."

- "The combined impact of increased government tax revenues and decreased government expenditures would provide a net public benefit of between \$44 and \$70 million under a prevailing wage standard and between \$33 and \$58 million under a minimum-wage-based labor standard."

All of this **while only increasing project costs by 3-9%**, and bringing Contractors and consumers the benefits of better employee recruitment, retention, and work quality, as well as growing the local economy. For each additional \$1 of project cost created by a prevailing wage labor standard, the local economy (GDP) would grow by between \$1.28 and \$3.15.

The Partnership recommends this additional project cost of 3-9% be paid for by additional public subsidies. **Subsidizing High Road jobs saves taxpayer dollars.** Each additional \$1 in taxpayer spending to ensure residential decarb projects have prevailing wages and benefits would result in between \$2.61 and \$2.76 in net taxpayer savings (factoring in the 3-9% project cost increase, additional tax revenues, and the reduction in safety net spending described above).

When implemented in residential decarbonization programs, the [Partnership-recommended labor standards](#) will improve job quality for workers, improve pay equity in residential construction, and grow the local economy. Additional public subsidy to ensure that residential decarbonization jobs are High Road will pay dividends for taxpayers many times over.

In order to ensure that these labor standards remain robust and effective in the evolving field of residential building decarbonization, the Partnership recommends that these standards be routinely reviewed and updated by the Partnership every 2-3 years via a thorough and collaborative review process that considers lessons learned, current industry practices, regulatory changes, technological advancements, public funding models, and other pertinent developments. In the absence of ongoing Partnership funding, we recommend the standards be reviewed and updated by the California Workforce Development Board.

Overview of the Partnership

The Bay Area Residential Decarbonization High Road Training Partnership envisions a residential building decarbonization industry that supports quality jobs, engages a qualified workforce, and provides stable career pathways for disadvantaged workers while simultaneously reducing greenhouse gas emissions and building more climate resilient communities. The goal of the Bay Area Residential Decarbonization High Road Training Partnership is to support the creation and expansion of high quality jobs in the local residential decarbonization sector, and to increase access to those jobs. Our Partnership

chose to focus on energy efficiency and electrification in existing, small residential buildings - single-family homes and multifamily buildings of 2-4 units, because this sector typically has low union density and is more likely to provide workers with low wages, no benefits, and limited training.

Review [this summary](#) for more information on this High Road Training Partnership, led by Rising Sun Center for Opportunity in partnership with the Construction Trades Workforce Initiative and funded in part by the California Workforce Development Board.

What is the High Road?

The California Workforce Development Board, which leads the statewide High Road Training Partnership Initiative, describes the High Road as an approach that "ensures workforce development and employment opportunities are accessible to and shaped by communities of color and low-wage workers, that jobs offer family-sustaining wages and benefits, that workplaces are safe and healthy, and that workers have agency and voice and are treated with dignity and respect"¹.

According to California State Labor Code, "High Road" - means a set of economic and workforce development strategies to achieve economic growth, economic equity, shared prosperity and a clean environment. The strategies include, but are not limited to, interventions that:

- Improve job quality and job access, including for women and people from underserved and underrepresented populations.
- Meet the skill and profitability needs of employers.
- Meet the economic, social, and environmental needs of the community².

In the words of one of the Bay Area Residential Decarbonization High Road Training Partnership's earliest partners, [Betony Jones](#), formerly of Inclusive Economics, now leading this work at the federal level with the Department of Energy: "High Road workforce development improves the quality of jobs so that they are better able to support workers' economic self sufficiency, upward mobility, and overall welfare [while simultaneously] increas[ing] access to jobs for people who need them the most and who have been historically excluded from career-track, family sustaining employment"³.

¹ California Workforce Development Board, "The High Road in Workforce Development", accessed September 25, 2024, https://cwdb.ca.gov/wp-content/uploads/sites/43/2020/08/OneSheet_HRTP_ACCESSIBLE.pdf

² State of California, "California Workforce Innovation and Opportunity Act", accessed September 25, 2024, https://leginfo.ca.gov/faces/codes_displaySection.xhtml?sectionNum=14005.&lawCode=UIC

³ Inclusive Economics, "High-Road Workforce Guide for City Climate Action", accessed September 25, 2024, https://www.usdn.org/uploads/cms/documents/workforce-guide_4.12.21_form.pdf

Why Labor Standards?

Quality jobs and equitable access to those careers is our *goal*. Labor standards are a *strategy* we can employ to achieve this goal. Currently, the residential construction industry operates largely based on market forces alone, with less regulation than other sectors and a majority of work being unpermitted. Leaving this industry to be shaped by market pressures has created a lowest-bid model in which price (rather than quality of work performed or quality of jobs) is the driver of the market. Previous climate investments in the U.S. have often failed to create quality jobs, instead being guided by these same market forces of the lowest-bid model and cost-effectiveness mandates at the expense of economic equity, job quality, and climate justice. Given the challenging nature of the residential construction sector, this is likely to happen again without strategic High Road policy intervention. Since its formation, labor standards have been at the center of our Partnership's theory of change.⁴ Labor standards set a baseline standard of operation, thus creating a floor of quality that cannot be sacrificed for the sake of lowering costs. Currently, we can only influence the sphere of residential work that is performed with some form of public money contributing to the project. We cannot at this time change how the private market chooses to operate. However, publicly funded work provides an opportunity for our government agencies to lead this transition in a justice-aligned manner that elevates market practices. Our approach for equitable labor standard intervention is to require minimum labor standards to subvert the race-to-the-bottom or lowest bid market tactics on these projects, support contractors to meet these standards, and offer additional incentives to support High Road labor standards and greater market participation by minority and women-owned businesses. These policy choices will develop the market, attract and strengthen a high-quality contractor pool, and set the foundation for a more just and equitable building decarbonization transition.

What Defines a Quality Job in the Bay Area?

Before embarking on the process of designing our labor standards, the Partnership asked how to define a quality job in the Residential Decarbonization sector. This can be a challenging question because, while it would simplify our work to have a universal answer, the quality of a job, especially wages, varies depending on factors including (but not limited to):

- The cost of living in a worker's home region
- The number of working people in their household
- The number of dependents they are caring for
- The ages of their dependents

⁴ A theory of change is a detailed framework that is used to plan, evaluate, and achieve a desired social change. See our [Partnership's North Star](#) for more information.

- The skills, experience, and education level of the worker
- Their preferences, such as for working with their hands versus at a desk, and
- Barriers to employment, such as periods of unstable access to housing or substance use, or being impacted by the justice or immigration systems

To help answer these questions, we reviewed various job quality frameworks, California residential [prevailing wage schedules](#), and tools such as the [MIT Living Wage Calculator](#) to better understand what defines a good job. (Note that prevailing wages are often at or above a local living wage, but they are not based on local living wage, and are, rather, the "basic hourly rate paid on public works projects to a majority of workers engaged in a particular craft" in the local region. Source: California [DIR FAQs](#).)

This job quality research process was essential in guiding our recommendations and formulating our current labor standards, so we are providing our core sources of guidance in this Toolkit, [Appendix A](#). While we recognize that there is no standard criteria for defining a good job, we have been guided in our work by the [Federal Good Jobs Principles](#) from the Department of Commerce and Department of Labor. Our Partnership is based in the Bay Area region of California, which has a notoriously high cost of living. It was therefore helpful to learn about the range of living wage rates for our geographic context using tools such as the [MIT Living Wage Calculator](#). This calculator estimates that an adult with no dependents needs to earn \$27-\$35/hour to afford the basic cost of living in our region, depending on the county. Each adult in a household with 2 working adults and 2 kids needs to make \$32-\$44/hour. This information, plus the additional job quality frameworks and tools in [Appendix A](#), helped to shape and inform our Partnership's labor standard design.

What is a High Road Residential Decarbonization Job?

Based on the information above and in [Appendix A](#) outlining the components of a quality job, and our collective investigation of the residential decarbonization sector, the Partnership developed the following:

Definition of a High Road Decarbonization Job

High Road jobs in the residential decarbonization sector retain and attract workers in this industry, improve the quality of work and persistence of energy savings, and improve the lives of workers and their families while serving their regional communities. A High Road residential decarbonization job provides prevailing wages with overtime; healthcare coverage that includes dependents, vision and dental; a pension or retirement savings plan with an employer match; paid time off; and opportunities for career advancement and skill development. A worker in a High Road residential building decarbonization job feels welcomed, safe, heard, included, and empowered with the assurance of support from

supervisors and the organization, and the ability to contribute ideas that materially improve the quality of their job and vitality of their organization.

Specifically, a High Road residential decarbonization job:

- Provides residential prevailing wages.
- Provides a minimum of Covered California Silver Level health care coverage to employees and their dependents, paying at least 85% of the premium for their full time employees and at least 75% of the premium for family and dependents, if applicable. Vision and dental coverage are provided for the employee and their dependents.
- Offers a pension or retirement savings plan for full-time workers with an employer match of at least 3%.
- Provides a minimum of 22 days off per year for holiday, vacation, sick leave, or personal necessity, of which at least 12 are compensated.
- Offers opportunities for workers to participate in training for career advancement that does not take away from their paid work hours.
- Provides opportunities for both entry-level and experienced workers.

What are the Criteria for a High Road Residential Decarbonization Contractor?

According to the California Workforce Development Board, which leads the statewide High Road Training Partnership Initiative, “High Road employers pay family supporting wages, compete based on the quality of their services and products, and engage workers and their representatives in the project of building skills and competitiveness”⁵. Based on these criteria and our collective investigation of the residential decarbonization sector, the Partnership developed the following:

Definition of a High Road Decarbonization Contractor

A High Road residential decarbonization contractor provides prevailing wages with overtime; healthcare coverage that includes dependents, vision, and dental; a pension or retirement plan with an employer match; and paid time off. For safety and maintaining a high quality of work, High Road residential decarbonization contractors are in compliance with all labor codes and laws, possess the necessary licenses and certifications, and are bonded and insured per California state requirements to perform their job within residential construction. In addition, they promote an inclusive and safe work environment, provide entry-level working opportunities, and offer pathways and training opportunities for workers

⁵ California Workforce Development Board, “CWDB High Road Framework”, accessed September 25, 2024, https://cwdb.ca.gov/wp-content/uploads/sites/43/2019/09/High-Road-ECJ-Brief_UPDATED-BRANDING.pdf

to advance within their careers and obtain new certifications. A High Road residential decarbonization contractor also uplifts and employs workers from disadvantaged communities and maintains a workforce that represents and serves the community in which they work.

Specifically, High Road residential decarbonization contractors:⁶

- Pay residential prevailing wages (at a minimum) for all workers, and require that subcontractors do the same.
- Provide a minimum of Covered California Silver Level health care coverage to employees and their dependents, paying at least 85% of the premium for their full time employees and at least 75% of the premium for family and dependents, if applicable. Vision and dental coverage are provided for the employee and dependents.
- Offer a pension or retirement savings plan for full-time workers with an employer match of at least 3%.
- By following prevailing wage requirements, or in addition to prevailing wage requirements as needed, provide a minimum of 22 days off per year for holiday, vacation, sick leave, or personal necessity, of which at least 12 are compensated.
- Prioritize hiring workers residing in Disadvantaged or Low Income Communities, including having at least one formal First Source Hiring Agreement with a Designated Training Provider with a proven track record of relevant, quality residential decarbonization training and providing career opportunities to priority populations.
- Provide work hours for both experienced workers and entry-level workers by ensuring that at least 30% of workers on each project installation are ‘experienced’ workers and by employing at least one ‘entry level’ worker on every project requiring three or more persons. For projects under 3 people, we recommend a ratio of 1:1.

How to Support High Quality Jobs & Equitable Access for Small, Disadvantaged Contracting Businesses

The Partnership recommends enhancing the quality of jobs in this sector while supporting contractors and consumers through a blended methodology which includes:

1. **Required labor standards.** The full suite of Partnership-recommended labor standards is to follow in the sections below. These labor standards are recommended by the Partnership for use in all publicly funded residential decarbonization programs. While we want to encourage and support consistency for contractors, consumers, and program implementers working on multiple programs across jurisdictions, we understand that each program and Partner will use these standards

⁶ Refer to the Partnership-recommended [Labor Standards](#) for additional detail.

as a guide and may choose to adapt them for integration into new and existing programs. At a minimum, our Partnership recommends including the suggested prevailing wage, healthcare benefit, and regional hire standards to raise the job quality floor for residential decarbonization projects.

2. **A Phased-in Approach.** To create a more inclusive program for small, disadvantaged businesses, allow contractors to "pre-qualify" for the program if they commit to meeting the labor standards by the time construction starts, even if they don't currently meet the standards, and then provide support to them to meet the program's labor standards so they are ready to implement the full set of standards on the first day of construction.
3. **Contractor Supports.** Build contractor supports into the design of the program, ideally facilitated by the Program Implementer who provides the support directly to contractors, and/or refers contractors to the suite of available services in the region, as appropriate. Due to histories of exclusion and continued barriers our current economic system presents for small, minority, women, and disadvantaged contractors, a robust ecosystem of supportive services for contractors is necessary to aid the equitable implementation of these standards. We must provide these supports to uplift contractors to meet these standards and to enable them to be the best employers they can be. [Appendix D](#) includes ideas for contractor supports, such as cash flow financing or collective procurement of quality healthcare services to assist contractors in meeting and exceeding these standards. We recommend that the phased-in approach and contractor supports focus on disadvantaged contractors with:
 - A. Annual revenues under \$1 million
 - B. A letter of commitment to the contractor supports program
 - C. Business headquarters within the Partnership's Regional Hire geography (see [Regional Hire standard](#)), and
 - D. A business license within the 9-Bay Area county region
4. **Incentives**, such as enhanced financial incentives or a competitive advantage in bidding (see additional ideas in [Sample Incentive Types](#)).

This multi-pronged approach to labor standards design can help yield a more inclusive outcome. Providing programmatic support and resources to help employers meet the baseline requirements and reach incentivized standards beyond the floor is critical to support employers to expand their High Road capacity. This targeted support is specifically key for contractors from marginalized communities who likely employ more workers and serve more households from their respective communities.

Introduction to Partnership-Recommended Labor Standards

What Does “Partnership-Recommended” Mean?

Rising Sun Center for Opportunity (Rising Sun) and the Construction Trades Workforce Initiative (CTWI) have convened a [High Road Training Partnership](#) of labor leaders, employers, workers, local governments and agencies, equity nonprofits, and decarbonization organizations since 2021. This group works together to improve the quality of jobs for employees in the residential decarbonization retrofit sector (energy efficiency and electrification). The process included collectively designing the following labor standards.

In 2024, the Official Partners voted to recommend these standards for publicly funded residential decarbonization programs (see this document for our [decision-making process](#)). This means that the Partnership supports these standards and official voting members of the Partnership have agreed to advocate for and recommend these standards. While we want to encourage and support consistency for contractors, consumers, and program implementers working on multiple programs across jurisdictions, we understand that each program and Partner will use these standards as a guide and may choose to adapt or phase them for integration into new and existing programs.

Categories of Labor Standards

Our Partnership recommends required or incentivized labor standards in each of the following categories:

- Fair Wages and Benefits
- Regional Hire
- Targeted Hire
- Diverse Business Enterprises
- Compliance and Accountability, and
- Training and Certification

Sample Incentive Types

Some of the Labor Standards below are recommended as *Requirements* and some are recommended to be *Incentivized*. Here are ideas of possible incentives that could be offered to Contractors who demonstrate compliance with incentivized standards:

- Points in a competitive bidding process for a commitment to meet regional hire requirements,
- Pay for performance incentives for proof of meeting incentivized standard,
- Points toward free tools or equipment,
- Preferential treatment amongst a list of qualified contractors, like a higher position in the list or a star by their name, and/or
- A higher dollar amount on rebates or incentives.

Key Resources for Implementation

In the Appendices of this Toolkit are key resources to support the implementation of these standards, including existing and recommended [supports for contractors](#) and a guide to the [actions](#) that are required by both contractors and program administrators/implementers to report on and monitor compliance with these recommended standards.

Partnership-Recommended Labor Standards

Fair Wage and Benefit Standards

Goal: The goal of these recommended Fair Wage and Benefits standards is to ensure a [high quality](#) of jobs in the residential decarbonization sector to attract and retain more workers in the field, improve the quality of installations and persistence of climate benefits, and improve the lives of workers and their families. These standards are designed to ensure that workers have prevailing wages, time off, healthcare, and retirement benefits. These wages and benefits should meet or exceed the cost of prevailing wages and employer payments as provided in the California [DIR Prevailing Wage schedules](#).⁷

Required:

1. Wages: Residential decarbonization retrofit work paid for with any amount of public funding (including California utility ratepayer funds) shall require state [residential prevailing wages](#) for all contractors, including the prime and all subcontractors.
2. Healthcare: Provide a minimum equivalent of Covered California Silver Level Coverage,⁸ paying at least 85% of the premium for full time employees, including paying at least 75% of the premium for family and dependents, if applicable. Vision

⁷ Note that several federal tax credits also require prevailing wage. The DOL provides tools here to implement IRA prevailing wage provisions: <https://www.dol.gov/agencies/whd/IRA>

⁸ Covered California Silver Level Coverage includes: 70-94% of costs paid by your insurance company, free preventative care, free children's dental and vision, etc. For individual out of pocket maximums: \$1,150-\$9,100. Individual medical deductible: \$0-5,400. Individual pharmacy deductible: \$0-\$150. Family out of pocket maximums: \$2,300-18,200. Family medical deductible: \$0-10,800. Family pharmacy deductible: \$0-300.

and dental coverage are required for the employee and dependents.⁹

3. Retirement:
 - a. **Union Contractors** shall meet the retirement requirement by following the terms of the Master Labor Agreement under which they operate with their union local.
 - b. **Non-Union Contractors** shall offer employees a retirement savings plan, such as a 401k, with an employer match of 3% at minimum.
4. Paid Time Off: If an employee is not covered under any Master Labor Agreement by being part of a union and/or is not participating in a PLA project, provide paid time off, meeting or exceeding the relevant prevailing wage schedule “Vacation & Holiday” Employer Payments equivalency and providing the Recognized Holidays in the relevant Prevailing Wage schedule. By following prevailing wage requirements, or in addition to prevailing wage requirements as needed, employers should provide employees with at least 22 days off per year for sick leave, holiday, vacation, or personal necessity. 12 of the required days shall be compensated at the same rate as regular compensation. 10 of the required days may be uncompensated.¹⁰

Incentivized Standard for Paid Time Off:

1. Provide all workers with a minimum of 8 weeks of fully paid family leave, with at least 30 additional paid days off per year for sick leave, holiday, vacation, or personal necessity.¹¹

Regional Hire Standards

Goal: The goal of including a Regional Hire requirement is to encourage the hiring of workers who live in and around the Bay Area for high-quality residential decarbonization jobs in order to stimulate and support the regional economy and its residents, keeping earnings local.

Required:

1. At least 50%¹² of Project Work Hours will be performed by workers permanently residing within 50 miles of the [9-county Bay Area](#) for projects occurring within the

⁹ In 2021, the average employer contribution to employee-only health insurance premiums in California was 82%. For family/Dependent coverage, the average employer contribution was 70%. Based on these numbers, we have come up with our recommended percentages for premium coverage by employers. [Source](#)

¹⁰ According to state law, employers must provide at least 40 hours or 5 days off per each year to most workers for Paid Sick Leave (PSL). Source: [DIR](#)

¹¹ This requirement may be waived in a collective bargaining agreement, provided that such waiver is explicitly set forth in the agreement (Based on the City of Berkeley’s Sick Leave Ordinance - [Ord. 7505-NS § 2 \(part\)](#), 2016)

¹² Ranges of model programs are between 20% and 80%. This percentage is not a requirement for all jurisdictions; it is a recommendation. Program administrators are encouraged and allowed to select the appropriate percentage based on the needs of their region; however, consistency across regional programs is encouraged. A higher percentage is more achievable in the Bay Area here due to the large geographic region, relative to comparable model programs.

9-county Bay Area.¹³

Incentivized Standard: Provide incentives for contractors that exceed 80% of workers hired from within the 9-county Bay Area. (See incentives in the *Note* at the beginning of this document.)

Targeted Hire Standards

Goal: The goal of Targeted Hire standards is to increase equitable access to high quality residential decarbonization jobs for priority workers, as defined below, and to increase their representation in these fields.

Defining Priority Workers¹⁴:

The Partnership's Priority Workers are underrepresented in the residential decarbonization sector or may have career-limiting circumstances, as indicated by **one or more** of the following:

- People who experience disabilities
- Having a household income of less than 50% of the Area Median Income (AMI) as defined by the U.S. Department of Housing and Urban Development
- Having a criminal record or a history of involvement with the criminal justice system
- Experiencing protracted unemployment: has been continuously unemployed for at least 6 months
- Current recipient of government cash or food assistance benefits - SNAP, TANF, WIC, Medi-Cal, LIHEAP, CARE, FERA, CAPI, Head Start, etc.
- Homeless or has been homeless within the last year
- Custodial single parents
- Former foster youth
- Veterans and current members of the National Guard and Reservists, or eligible spouses of a veteran or current member of the United States Armed Forces
- Affordable housing resident
- Lacking a GED or high school diploma

¹³ The Partnership recommends a gradual localization of this requirement to maximize local benefit, provided that wages and benefits in this sector have grown to meet the 9-county Bay Area living wage threshold. By 2027, we would hope to recommend a Phase 2 standard of "At least 50% of workers are hired *from within* the 9-county Bay Area for projects occurring within the 9-county Bay Area.

¹⁴ The Partnership recommends including women and BIPOC individuals as priority workers, but California's limitations under [Prop 209](#) prohibits the use of certain language. However, in the introduction and narrative describing the purposes of an agreement, you can put any specifics you want. Unlike contract requirements/conditions like targeted hiring goals, hortatory language does not violate Prop 209. (E.g The parties wish to increase women's participation in the workforce or encourage BIPOC entry into the industry, etc.) For jurisdictions seeking legal expertise related to Prop 209, the Partnership received guidance from the Law Office of Julian Gross, The Flood Building, 870 Market Street, Suite 913, San Francisco, CA 94102, 415-602-2395

- English language learners
- Displaced fossil fuel industry workers

Required:

1. At least 20%¹⁵ of Project Work Hours will be performed by workers permanently residing in Disadvantaged or Low Income Communities¹⁶ as defined by the [California Climate Investments Priority Populations Map](#).
2. Participating contractors must have at least one formal First Source Hiring Agreement with a Designated Training Provider: an approved governmental, community college, trade school, state-approved apprenticeship program, multi-craft core curriculum (MC3) pre-apprentice program, or non-profit workforce development agency that has a proven track record of relevant, quality residential decarbonization training and providing career opportunities to priority populations.

Incentivized Standards: Provide incentives for contractors who:

1. Include welcoming and inclusive language in all job postings.
2. Submit a workforce diversity and inclusion plan, aligned with the Partnership's priority populations above and recommendations, including a process to monitor and track success in meeting the goals in the plan.
3. Demonstrate success in meeting or exceeding the goals in their workforce diversity and inclusion plan.
4. Demonstrate that more than 30% of total trades and technical project hours are performed by the Partnership's priority populations as indicated by one or more career-limiting circumstances as defined above.
5. Demonstrate that more than 50% of new, entry-level hires are sourced from a Designated Training Provider and retained.

Disadvantaged Business Enterprise Standards

Goal: To increase the economic vitality and representation of small, socially and economically disadvantaged contractor businesses in the residential decarbonization sector.

Required:

1. Measure and evaluate if no less than 20% of revenue in publicly funded Bay Area residential decarb projects is earned by contracting businesses and sub-contractors

¹⁵ Ranges of model programs are between 10% and 30%. This percentage is not a requirement for all jurisdictions; it is a recommendation. Program administrators are encouraged to select the appropriate percentage based on the needs of their region; however, consistency across regional programs is encouraged.

¹⁶ Disadvantaged and Low Income Communities are represented on the map as Yellow, Blue, and Green (where the two overlap) respectively. These are the census tracts included by our standard. We are not including the buffer zones (which largely fall into one of the above categories already) or the Low Income Household Eligible tracts (represented by purple and gray).

that are owned by socially and economically disadvantaged individuals as indicated by possession of the following certifications¹⁷:

- California’s [Unified Certification Program for Disadvantaged Business Enterprises](#) for socially and economically disadvantaged individuals, and/or
- California’s [Small Business and/or Disabled Veteran Business Enterprise](#), and/or
- Other state or federally recognized certifications to verify that the business is a Disadvantaged Business Enterprise, Small Business, or Disabled Veteran Business Enterprise (DVBE).

Compliance and Accountability Standards

Goal: The goal of these recommended Compliance and Accountability standards is to ensure contractor quality, standardize requirements for contractors across jurisdictions and programs, and support safety, equity, and inclusion for workers.

Compliance with Codes + Laws:

Required:

1. Participating contractors shall comply with any and all applicable laws, codes and ordinances, and obtain all required licenses, finalized permits, or approvals from the appropriate authorities.
2. Contractors must have a history of abidance with building code and labor law, including having no unresolved Contractors State License Board (CSLB) license citations in the previous 3 years.¹⁸
3. Have no unresolved Department of Industrial Relations wage claim violations in the previous 3 years.
4. Participating contractors must have no unresolved violations with Cal/OSHA in the previous 3 years.¹⁹
5. Participating contractors must abide by all labor laws, including but not limited to:
 - a. Not unlawfully discriminating, denying family care leave, harassing, or allowing harassment against any employee or applicant for employment because of sex, race, color, sexual orientation, ancestry, religions creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition, age, marital status, or pregnancy.

¹⁷ If the Partnership were not bound by the limitations outlined in [Prop 209](#), we would recommend “No less than 20% of all dollars in publicly funded residential decarb projects go to contracting businesses and sub-contractors that are owned by historically disadvantaged or underrepresented people indicated by the possession of certain certifications”, as adapted from [Clean Energy Works Oregon’s](#) High Road Standards.

¹⁸ Complaints against a contractor turn into citations if they cannot be resolved through mediation or arbitration and have to be referred to an investigative center. That entity will then decide if the complaint will be closed or be escalated to a citation ([CSLB](#))

¹⁹ “Every citation includes a monetary penalty and indicates the date by which the violation must be corrected” ([DIR](#)). Once violations are corrected they are resolved.

- b. Proper Classification: Per the CA DIR, a worker is considered an employee and not an independent contractor unless the hiring entity satisfies all 3 of the following conditions:
 - i. “The worker is free from the control and direction of the hiring entity in connection with the performance of the work, both under the contract for the performance of the work and in fact;
 - ii. The worker performs work that is outside the usual course of the hiring entity’s business; **and**
 - iii. The worker is customarily engaged in an independently established trade, occupation, or business of the same nature as that involved in the work performed.”²⁰
- c. Organizing: Per federal law, grant recipients, contractors, and subcontractors shall not oppose worker efforts to organize, nor shall they retaliate or otherwise create a hostile environment for workers who choose to engage in collective conversations or action regarding workplace issues ([NLRB Employee Rights](#)).
- d. Conform to industry regulations for working safely at all times and that their employees are properly trained to do so.
- e. Conform to industry regulations for treating hazardous or environmentally harmful materials²¹ at all times and that their employees are properly trained to do so. To meet this standard, contractors must submit relevant Safety Data Sheets (SDS) for review and by California law, must make them easily accessible to all employees at the job site.

Insurance Requirements:

Required:

1. Commercial general liability insurance with coverage of at least \$1M each occurrence/\$2M aggregate for bodily injury, property damage or personal injury or death.
2. Workers’ compensation of no less than \$1M per event of injury or death. **Note:** Sole proprietors/Contractors with no employees are exempt from this requirement, if Workers’ Comp is not a requirement of the CA CSLB for their license type.²²
3. Automotive liability insurance with coverage of at least \$1M per event of bodily injury or property damage.

²⁰ Taken from the DIR’s ABC test. AB 5 requires the application of the “ABC test” to determine if workers in California are employees or independent contractors for purposes of the Labor Code, the Unemployment Insurance Code, and the Industrial Welfare Commission (IWC) wage orders. To apply the ABC test to worker relationships, see the DIR’s webpage [here](#).

²¹ “Hazardous substances” are defined as those substances so designated by the Director of Industrial Relations pursuant to the Hazardous Substances Information and Training Act (Labor Code sec. 6360 et seq.).

²² See more information on CSLB Workers’ Comp requirements [here](#)

4. Bonding per California state requirements.²³

Workforce, Community & Labor Agreements:

Required: Specifically for Upstream (Direct Install) Programs with Estimated Aggregated Construction Program Costs Exceeding \$1 million of Public Funding:

1. Adopting a Community Workforce Agreement or Project Labor Agreement negotiated with the Building Trades, the program administrator, and with the participation of related community partners.

Accountability & Reporting:

Required:

1. Submit Program Reporting Quarterly: Provide information on all workers, contractors, and subcontractors regarding the required and self-selected incentivized standards four times per year in the furnished reporting template. It is important that contractors understand reporting requirements before work begins.
2. The program administrator shall have grounds to conduct an audit of a Contractor's financial, performance, and compliance records in connection with the operations and services performed under this program for failure to comply with the program's labor standards. In the event of such an audit, the Contractor agrees to provide the program auditor with reasonable access to Contractor's employees and make all such financial, performance and compliance records available to the Auditor's Office. The Program Administrator agrees to provide Contractor an opportunity to discuss and respond to any findings before a final audit report is filed. The Contractor will retain records demonstrating compliance with the program's labor standards for no less than 3 years.
3. A joint labor-management cooperation committee or program administrator shall have standing to sue a construction contractor for failure to comply with the program's labor standards.

Training and Certification Standards

Goal: The goal of these recommended standards is to ensure opportunities for growth and career advancement for workers and to ensure that contractors, subcontractors, and workers are appropriately trained and certified to deliver high quality work that maximizes energy savings and emission reduction within the residential decarbonization sector.

Training & Experience Requirement:

Required:

1. Experienced Workers: At least 30% of workers on each project installation to have

²³ To have a valid CSLB license, a contractor must be bonded. The bond must be \$25,000 and be written by a surety company licensed through the California Department of Insurance.

either (1) graduated from a state-approved apprenticeship program, or (2) possess at least three years of relevant installation experience and have received training and certification in the type of equipment being installed shall be deemed to have adequate training.

2. Entry-Level Workers: On each project installation that utilizes three or more workers, include at least one state registered apprentice²⁴, MC3 pre-apprenticeship graduate, or entry-level worker²⁵ that is receiving hands-on training and guidance from the experienced journeyman or the contractor. On project installations that utilize only two total workers, we encourage the use of one apprentice, MC3 pre-apprenticeship graduate, or entry-level worker, if practical.

Certification Requirements:

Required:

1. For entry-level workers:
 - [OSHA 10 certification](#) - To satisfy Cal/OSHA California training requirements, all entry-level construction/general industry workers must complete at minimum the OSHA 10 Training.
2. For experienced workers:
 - [OSHA 30 certification](#) - Cal/OSHA 30 training provides a greater variety of safety subjects and in-depth, industry-specific training. It is intended for supervisors and workers with health and safety responsibilities.
 - [EPA 608 Certification for HVAC - Section 608 of the Federal Clean Air Act](#) requires that all persons who maintain, service, repair, or dispose of appliances that contain ozone depleting refrigerants be certified in proper refrigerant handling techniques.

See the [Certification Inventory](#) for additional relevant certifications.

²⁴ Identify if an apprentice is state registered in California here:
<https://www.dir.ca.gov/das/appcertpw/AppCertSearch.asp>

²⁵ Entry-level workers have fewer than 3 years of relevant work experience.

Appendix A: Job Quality Definitions and Tools

While there are no universal criteria for defining a good job, we are guided in our work by the [Federal Good Jobs Principles](#) from the Department of Commerce and Department of Labor:

- **Recruitment and Hiring:** Qualified applicants are actively recruited – especially those from underserved communities. Applicants are free from discrimination, including unequal treatment or application of selection criteria that are unrelated to job performance. Applicants are evaluated with relevant skills-based requirements. Unnecessary educational credentials and experience requirements are minimized.
- **Benefits:** Full-time and part-time workers are provided family-sustaining benefits that promote economic security and mobility. These include health insurance, a retirement plan, workers' compensation benefits, work-family benefits such as paid leave and caregiving supports, and others that may arise from engagement with workers. Workers are empowered and encouraged to use these benefits.
- **Diversity, Equity, Inclusion, and Accessibility (DEIA):** All workers have equal opportunity. Workers are respected, empowered, and treated fairly. DEIA is a core value and practiced norm in the workplace. Individuals from underserved communities do not face systemic barriers in the workplace. Underserved communities are persons adversely affected by persistent poverty, discrimination, or inequality, including Black, Indigenous, people of color; LGBTQ+ individuals; women; immigrants; veterans; individuals with disabilities; individuals in rural communities; individuals without a college degree; individuals with or recovering from substance use disorder; and justice-involved individuals.
- **Empowerment and Representation:** Workers can form and join unions. Workers can engage in protected, concerted activity without fear of retaliation. Workers contribute to decisions about their work, how it is performed, and organizational direction.
- **Job Security and Working Conditions:** Workers have a safe, healthy, and accessible workplace, built on input from workers and their representatives. Workers have job security without arbitrary or discriminatory discipline or dismissal. They have adequate hours and predictable schedules. The use of electronic monitoring, data, and algorithms is transparent, equitable, and carefully deployed with input from workers. Workers are free from harassment, discrimination, and retaliation at work. Workers are properly classified under applicable laws. Temporary or contractor labor solutions are minimized.
- **Organizational Culture:** All workers belong, are valued, contribute meaningfully to the organization, and are engaged and respected especially by leadership.

- **Pay:** All workers are paid a stable and predictable living wage before overtime, tips, and commissions. Workers’ pay is fair, transparent, and equitable. Workers’ wages increase with increased skills and experience.
- **Skills and Career Advancement:** Workers have equitable opportunities and tools to progress to future good jobs within their organizations or outside them. Workers have transparent promotion or advancement opportunities. Workers have access to quality employer- or labor-management-provided training and education.

The **Department of Energy** provides the following job quality criteria for Inflation Reduction Act programs: “Good-quality jobs are jobs that pay sustaining wages with wage progression, benefits, access to paid leave, opportunities for career advancement through training and education, adequate staffing, safety and health protections, nondiscriminatory and harassment-free workplaces that promote diversity, equity, inclusion, and accessibility and, to the strongest extent possible, a platform for worker voice that supports all workers and ensures fair pay and safe working conditions.”²⁶

From **California Labor Code**: “High Road Training partnerships demonstrate job quality standards and employment practices that include, but are not limited to, the following:

- Provision of comparatively good wages and benefits, relative to the industry, occupation, and labor market in which participating workers are employed.
- Payment of workers at or above local or regional living wage standards as well as payment at or above regional prevailing wage standards where such standards exist for the occupations in question.
- A history of investment in employee training, growth, and development.
- Provision of opportunities for career advancement and wage growth.
- Safe and healthy working conditions.
- Consistent compliance with workplace laws and regulations, including proactive efforts to remedy past problems.
- Adoption of mechanisms to include worker voice and agency in the workplace.”²⁷

The [Aspen Institute](#) also provides helpful general descriptors of a quality job, including this visual:

²⁶ U.S. Department of Energy, [State and Community Energy Programs](#). July 17, 2023. Inflation Reduction Act of 2022 State-Based Home Energy Efficiency Contractor Training Grant Program Administrative and Legal Requirements Document. CFDA Number: 81.041

²⁷ California Code, Unemployment Insurance Code, Division 7. California Workforce Innovations and Opportunity Act, Ch. 2: Definitions and Severability, https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=14005.&lawCode=UIC

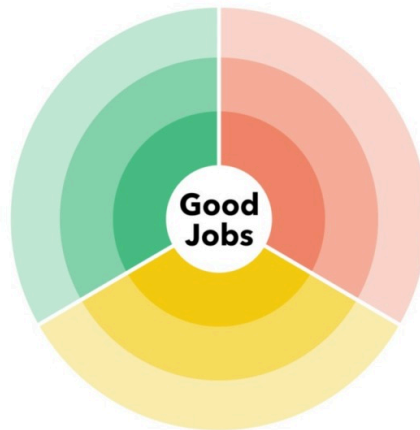
Good Jobs: A Working Definition

Economic Stability

- ❑ Stable, family-sustaining pay
- ❑ Sufficient, accessible, and broadly available benefits
- ❑ Fair, reliable scheduling practices
- ❑ Safe, healthy, and accessible working conditions

Economic Mobility

- ❑ Clear and equitable hiring and advancement pathways
- ❑ Accessible, paid training and development opportunities
- ❑ Wealth-building opportunities



Equity, Respect & Voice

- ❑ Organizational and management culture, policies, and practices that:
 - ❑ are transparent and enable accountability
 - ❑ support a sense of belonging and purpose
 - ❑ advance DEIA*
 - ❑ and address discrimination.
- ❑ Ability to improve the workplace, such as through collective action or participatory management practices

*DEIA: diversity, equity, inclusion, and accessibility

As described in these frameworks, job quality goes beyond just family sustaining wages. According to an analysis done in March of 2018, of the 20 professions least likely to have health insurance, 11 of them are in the construction industry.²⁸ This analysis also found that only 27.4% of construction workers actually participated in an employment-based retirement plan and those rates have been continuously declining since 2018.²⁹

Research shows that providing quality jobs is not only good for workers - it is good for employers as well. This [resource](#) from the National Fund for Workforce Solutions, based on decades of scientific management research, maps the “relationships between five universal and validated business metrics and 26 job design choices. They help demonstrate that good jobs are not just good for workers — they are good for business.”

Despite these examples, the challenge (as well as the opportunity), for our Partnership has been to articulate what, specifically, defines a quality job in the residential decarbonization sector in the Bay Area. One of the most challenging areas to define is what constitutes “a stable and predictable living wage” or “family-sustaining pay” in the Bay Area.

²⁸ Slowey, Kim, Construction workers Least Likely to Have Health Insurance, Report Finds, *ConstructionDive*, March 27, 2018,

<https://www.constructiondive.com/news/report-construction-workers-least-likely-to-have-health-insurance/519991/>

²⁹ IBID

Establishing a Fair Wage

The following are tools for establishing a fair wage for the residential decarbonization sector in the Bay Area:

Tool 1: [The MIT Living Wage Calculator](#)

The MIT Living Wage Calculator is a widely adopted tool for assessing living wages. In their words: “Today, families and individuals working in low-wage jobs make too little income to meet minimum standards of living in their community. We developed the Living Wage Calculator to help individuals, communities, employers, and others estimate the local wage rate that a full-time worker requires to cover the costs of their family’s basic needs where they live.”

Wherever you are in the country, you can use the MIT Living Wage Calculator to explore the living wage in your county, metro area, or state for 12 different family types. The challenge, as described above, is that a living wage depends on a range of factors, including (but not limited to) county and the wide diversity of family types.

A few local examples in the 9-County Bay Area according to the MIT Living Wage Calculator (as of Aug 2024):

County	1 Adult, 0 Children	2 Adults, 2 Working, 2 Children	2 Adults, 1 Working, 2 Children
Alameda	\$28.55	\$38.01	\$52.32
San Francisco	\$28.74	\$40.76	\$53.48
Santa Clara	\$32.99	\$40.40	\$56.58
San Mateo	\$34.39	\$44	\$61.62
Solano	\$27.10	\$32.28	\$49.64

The State Minimum wage is \$16.00. Many cities and counties in the Bay Area have [higher minimum wages](#), up to \$19.36 in Emeryville as of 7/1/2024, but every minimum wage in the Bay Area falls short of the *lowest* level of living wage assessed by the MIT Living Wage calculator: \$27.10 for a single adult with no dependents living in Solano County.

Tool 2: [The Family Needs Calculator](#)

The Family Needs Calculator, developed by the Insight Center, measures the floor income necessary for an individual (under age 65 and without disability) or family to afford basic

expenses in California. Covering all 58 counties, the data assesses the cost of housing, food, child care, health care, transportation, and taxes—without accounting for public or private assistance. This calculator additionally differentiates by age and stage of the child(ren) in the family, i.e. infant, preschool, school age, etc.

A few local examples of the minimum annual income to afford basic needs in the 9-County Bay Area in 2021, according to the Family Needs Calculator include:

County	1 Adult, 0 Children	2 Adults, 2 Children - 1 preschool, 1 school aged	1 Working Adult, 1 preschool aged child
Alameda	\$43,633	\$123,080	\$92,015
Contra Costa	\$46,064	\$126,616	\$595,161
San Francisco	\$60,232	\$153,227	\$120,519
Marin	\$67,334	\$158,761	\$124,363
Santa Clara	\$57,034	\$138,742	\$107,001

These tools and frameworks helped inform our Partnership’s work to establish recommended labor standards for the residential decarbonization sector and definitions of a High Road residential decarbonization Contractor and job.

Appendix B: How to Determine Prevailing Wage Rates

To navigate the residential Prevailing Wage Schedules provided by the DIR for the 9-County Bay Area, the High Road Partnership co-lead the [Construction Trades Workforce Initiative \(CTWI\)](#), has prepared this [resource](#) designed to support contractors, project managers, and payroll administrators in identifying the appropriate prevailing wage rate to pay for each common decarbonization task. By utilizing this table, contractors can more effectively manage wage compliance when workers are performing tasks related to multiple trades on a single project, ensuring that wages align with local labor laws and that workers are being compensated fairly. The Partnership recommends that if workers are performing multiple trades within a single day on a project, that contractors either switch between rates to match the task performed or default to paying the highest prevailing wage rate out of all of the trade tasks being performed during the course of that day.

Within this spreadsheet is a comprehensive schedule of current prevailing wage rates for journeymen, organized by trade. Visit the [DIR residential prevailing wage rate page](#) to check for current rates. The wage rates are broken down to show the basic straight-hourly rate, employer payments (fringe benefits), and any scheduled increases per trade and county. Each trade includes a detailed description of residential work scopes which will aid contractors in accurately determining the appropriate wage rate based on specific work performed throughout a project.

Example from the Residential Decarbonization Scopes of Work and Wage Rates Guide:

Union Trade	Residential Scope of Work	Alameda County
Carpenter Workers	<p>Assess and repair wood framing, beams, columns, and foundations to maintain structural integrity through reinforcement or retrofitting</p> <p>Frame new walls, partitions, and openings, installing studs, joists, rafters, and trusses per building codes</p> <p>Install or replace windows, doors, and skylights, ensuring proper fitting, weather sealing, and alignment to improve energy efficiency</p> <p>Install drywall, finishing seams and surfaces for smooth, paint-ready walls and ceilings</p> <p>Install insulation on walls, floors, ducts, and pipes to conserve energy, reduce emissions, and prevent mold</p>	<p>Wage Rates: Residential Carpenter Basic Straight-Time Hourly Rate: \$59.79</p> <p>Employer Payments: Residential Carpenter Health & Welfare: \$12.49 per hour worked Pension: \$11.25 per hour worked Vacation/Dues: \$5.58 per hour worked Training: \$1.19 per hour worked Other: \$3.30 per hour worked</p> <p>Predetermined Increase(s): Effective on July 1, 2024, there will be an increase of \$4.82 allocated to wages and/or fringes. Effective on July 1, 2025, there will be an increase of \$5.07 allocated to wages and/or fringes. Effective on July 1, 2026, there will be an increase of \$5.32 allocated to wages and/or fringes.</p>

Figure 1: Residential Scope of Work and Prevailing Wage Rate Schedule for Carpenters in Alameda County.
Source: [Residential Decarbonization Scopes of Work and Wage Rates Guide](#)

Appendix C: Contractor + Program Admin/ Implementer Reporting & Accountability Actions

The tables below describe the actions that are needed by Contractors and either Program Administrators or Program Implementers in order to demonstrate and monitor compliance with the [Labor Standards](#).

Regional Hire: Reporting & Accountability Actions

Labor Standard Number	Contractor Action	Program Admin/Implementer Actions
#1	Contractor and their subcontractors must report the zip codes of workers' residences for each worker on a publicly subsidized residential decarb project.	Program Admin will provide a reporting form, and review and save responses.

Targeted Hire: Required

Labor Standard Number	Contractor Actions	Program Admin/Implementer Actions
#1	Contractors will report on total project hours and hours per worker on each project, plus worker's address.	Program Admin will provide a reporting form, and review and save responses.
#2	Contractors will provide at least one signed First Source Hiring Agreement with a Designated Training Provider.	Program Admin will provide template Agreement.

Targeted Hire: Incentivized

Labor Standard Number	Contractor Reporting Actions	Program Admin/Implementer Actions
#1	Contractors will provide evidence of welcoming and inclusive language in job postings and fair chance hiring practices.	Program Admins will provide examples of welcoming and inclusive language and spot

		check job postings to verify if Contractors are including inclusive language on all job postings.
#2	Contractor will share a written workforce diversity and inclusion plan with goals, including a process to monitor and track success in meeting these goals.	Program Admin will provide a template plan.
#3 & #4	Contractor and their subcontractors will demonstrate success on workforce diversity and inclusion goals and/ or meeting the 30% of total trades and technical project hours target by asking their workers to submit a voluntary demographics form to the program administrator to indicate if they self-identify with any of the priority population groups.	Program Admin will provide a demographics reporting form, and analyze form results.
#5	Contractors will report on which Designated Training Program the worker participated in, if any.	Program Admin will provide a reporting form, and analyze responses to verify if the target is met.

Diverse Business Enterprises

Labor Standard Number	Contractor Actions	Program Admin/Implementer Actions
#1	Contractors will report prime and subcontractors that are Certified as Small, Minority, Women or Veteran-owned businesses with each project completed, and the total dollars allocated to each of these contractors.	Program Admin will provide a reporting form, and analyze responses to verify if the target is met.

Compliance and Accountability - Codes + Laws

Labor Standard Number	Contractor Actions	Program Admin/Implementer Actions
#1	Contractors will submit CSLB license(s) number(s) and respective expiration dates.	Verification of license.
#2	Contractors will review and verify unresolved CSLB license citations (if any are found) and subsequently pay them. Contractors will provide receipts of payments to the program administrator.	<p>Check for unresolved CSLB license citations: https://www.cslb.ca.gov/onlineservices/checklicensell/checklicense.aspx</p> <p>Optional: Request CWPAs (civil wage and penalty assessments) on participating contractors.³⁰</p>
#3	Contractors will sign an agreement to attest that they have no unresolved wage claim violations. As necessary, pay wage theft balances and report to the Labor Commissioner's Office. Provide receipts and evidence of payment to the program administrator.	<p>Provide contractor agreement to sign for attestation.</p> <p>Check for Wage Claim Judgements in the State of California: https://www.sandiegocounty.gov/content/sdc/OLSE/wage-claim-judgments.html</p> <p>A wage claim judgment is when the Labor Commissioner decides an employer has committed wage theft.</p>
#4	Contractors must submit evidence of OSHA cards possessed by every worker on the job.	Public records maintained by DIR Cal/OSHA are available for inspection by members of the

³⁰ You can request CWPAs (civil wage and penalty assessments) on contractors at this email address (DLSE-PRA@dir.ca.gov) with the contractor and date range. The following is an email template (the dates are hypothetical): "I would like a copy of all Civil Wage and Penalty Assessments issued against insert contractor name (CSLB# xxxxx) between January 1, 2013, and today, October 25, 2023."

		public. Make a request for public records here: https://www.dir.ca.gov/PRAR/PRARForm.asp
#5	<p>b) Sign an agreement to attest that they will conform to the organizing requirement.</p> <p>c) Sign an agreement to attest they are conforming to industry regulations, they are working safely, and their employees are properly trained.³¹</p> <p>d) Must provide SDS's of all hazardous substances they intend to use at the job site. Must make SDS's easily accessible to employees on job sites.</p>	<p>b) Provide contractor agreement to sign for attestation.³²</p> <p>c) Provide contractor agreement to sign for attestation.</p> <p>d) Program Admin/Implementer must review the SDS's before the Contractor may use that product. Must inform the Contractor about hazardous substances to which they may be exposed on the job site, and what protective measures they can take to reduce exposure.</p>

Compliance and Accountability - Insurance

Labor Standard Number	Contractor Actions	Program Admin/Implementer Actions
#1	Pursuant to California Business and Professions Code §7159.3 (SB 2029), home improvement contractors must provide notice and disclose whether or not they carry commercial general liability insurance. The written statement must accompany the bid, if there is one, and the contract.	Collect verification of commercial general liability insurance from all prime and subcontractors on the job.

³¹ Reference "Accountability (Reporting): Examples" section on SB 423 for more information on drafting such types of agreements.

³² Ibid

#2	Provide a Certification of Insurance to the program administrator.	Verification and copy for records.
#3	Provide a Certification of Insurance to the program administrator.	Verification and copy for records.
#4		N/A. Verification of license above is proof of bonding.

Compliance and Accountability - PLA & CWA's³³

Labor Standard Number	Contractor Actions	Program Admin/Implementer Actions
#1	Negotiate and sign a CWA or PLA if this labor standard category is triggered by applicable project size	Collaborate on the design of a CWA or PLA negotiated with the Building Trades and community and workforce partners.

Compliance and Accountability - Reporting

Labor Standard Number	Contractor Actions	Program Admin/Implementer Actions
#1	Submit Program Reporting Quarterly	Provide template and review reporting that is submitted quarterly.
#2	Provide the program auditor with reasonable access to employees and make financial, performance and compliance records available to the Auditor's Office.	If a financial, performance, or compliance audit is performed, the program administrator must provide their findings to the contractor and allow them to respond.
#3		Provide a report describing how a Contractor was out of compliance with a program's labor standards.

³³ If you would like to review examples of PLA's and how cities can engage with them, please review the resources provided in the Contractor Supports table [here](#).

Fair Wage and Benefits Standards

Labor Standard Number	Contractor Actions	Program Admin/Implementer Actions
#1	Submit certified payroll records to the PA/PI and the DIR portal .	Review contractor and sub certified payroll for compliance. Recommendation: Randomly survey workers to verify that payroll records are accurate.
#2	Contractors must enroll their employees in a compliant plan, if not already provided, and provide proof of Healthcare verification and form as provided by PA/PI. Non-union contractors will need to calculate and report on prevailing wage “Employer Payments” equivalency costs to receive fringe payment credit.	Share, collect, review, and file verification forms and documentation for non-signatory contractor benefits verification.

Labor Standard Number	Signatory Contractor Actions	Non-Signatory Contractor Actions	Program Admin/Implementer Actions
#3	Proceed as mandated by their Master Labor Agreement. If working on a PLA or CWA project, the PLA/CWA will supersede the MLA.	Contractors must enroll their employees in a compliant retirement plan, if not already provided, and provide proof of retirement plan and match verification documentation and form as provided by PA/PI. Non-union contractors will need to calculate and report on prevailing wage “Employer Payments” equivalency costs to receive fringe payment credit.	Share, collect, review, and file verification forms and documentation for non-signatory contractor benefits verification

Labor Standard Number	Contractor Actions	Program Admin/Implementer Actions
#4	Contractors provide Employee Handbook or other documentation of compliance with requirements to provide at least the minimum days off. Non-union contractors will need to calculate and report on prevailing wage “Employer Payments” equivalency costs to receive fringe payment credit.	Review Employee Handbook or other documentation of minimum days off policy for compliance.

Training and Certification - Training and Experience

Labor Standard Number	Contractor Actions	Program Admin/Implementer Actions
#1	<p>Complete reporting on the percentage of workers on each project installation that meet the training & experience requirement.</p> <p>Provide a sampling of paystubs from the 3 year work period to prove and verify relevant work experience.</p>	<p>Provide a form for Contractors to report on the percentage of workers who meet training & experience requirements.</p> <p>Review reporting for training minimum and for accuracy.</p> <p>Collect and review a sampling of paystubs from workers to verify proof of relevant work experience.</p>
#2	<p>Complete reporting on the amount of workers on each project installation that meet the first year apprentice or entry-level worker requirement.</p>	<p>Provide a form for Contractors to report on first year apprentice or entry-level worker requirements. Verify with the State that the named apprentice is State Registered with an active program.</p> <p>Review reporting for entry-level worker minimum and for accuracy.</p>

Training and Certification - Certification

Labor Standard Number	Contractor Actions	Program Admin/Implementer Actions
#1	Provide evidence of OSHA 10 cards for every entry-level worker on the job.	Collect, review, and file information provided for program records.
#2	Provide evidence of OSHA 30 cards and EPA 608 Certifications for experienced workers on the job.	Collect, review, and file information provided for program records.

Appendix D: Contractor Supports

The Partnership recognizes the vital importance of supporting small, BIPOC, and woman-led contracting businesses to participate in publicly-subsidized residential decarbonization programs. Below is our work-in-progress to identify: the supports that are needed, what support is currently provided and by whom, and the gaps in the current contractor support ecosystem in the 9-county Bay Area. As the Partnership continues to identify contractor needs, available supports, and gaps, we will periodically update this table and the Toolkit to share these additions.

Key: The Categories below correspond to the categories of [Labor Standards](#) in the Toolkit. The Contractor Supports describe the identified contractor needs, which are especially important for supporting small, BIPOC, and women-led contracting businesses in competing for publicly-funded residential decarb program work while providing High Road jobs. The Status reflects whether this need is currently met in the Bay Area (Exists); the need is partially met - for example in only some parts of the Bay Area or on a limited basis (Add); or if, to the best of our knowledge, this support is not currently provided (Aspirational). The Resources reflect the currently available, known sources of this support for contractors. These Resources are also potential sources of Additional and Aspirational supports.

Category	Contractor Support	Status	Resources
Targeted Hire	Provide model welcoming language to job descriptions/application process to Contractors to encourage folks with targeted backgrounds to apply, as well as fair chance hiring language.	Add -	MCE's Green Workforce Pathways, NAMC Minority Residential Contractor

	<p>Develop a list of Designated Training Providers (CEWO Model List) that have an established track record of serving our priority populations and providing quality construction training inclusive of relevant decarbonization skills.</p>	<p>Add ▾</p>	<p>Union apprenticeships, CCAs and utilities, PG&E, Rising Sun Center for Opportunity, community colleges CityBuild Academy, Cypress Mandela, RichmondBuild, JobTrain, Goodwill, etc.</p>
	<p>Develop template First Source Hiring Agreements between Contractors and Designated Training Providers.</p>	<p>Aspirational ▾</p>	<p>City of SF, City of Berkeley</p>
	<p>Develop a template workforce diversity and inclusion plan with model workforce diversity and inclusion goals, including a process to monitor and track success in meeting these goals. Include model language for a Safe and Respectful Jobsite Policy that addresses how the organization will handle issues of discrimination (such as sexism or racism) and bullying (such as harassment or intimidation), including model internal procedures for: Investigation of incidents of hate, intimidation, or harassment; response; and support and protection of impacted workers and whistleblowers.</p>	<p>Add ▾</p>	<p>City of SF, Civil Rights Department, OSHA,</p>

	Provide or connect contractors to trainings and resources on diverse and equitable hiring, as well as creating a safe and inclusive workplace culture.	Aspirational ▾	Paradigm, California Employers Association, Equal Employment Opportunity Commission, PCEF Training Resources
Disadvantaged Business Enterprises	Provide technical assistance for BIPOC and/or women-owned contractors and small businesses: Provide multiple avenues of support to encourage their participation in residential decarb and the named MWDBE Certification programs, such as technical assistance, mentorship, and alternative financing options for BIPOC and/or women-owned contractors.	Add ▾	Emerald Cities E-Contractor Academy : MWDBE 7-week Training, business support, procurement assistance, mentoring, etc. Revalue.io : Concierge service, financing, training NAMC - Bay Area : Technical assistance, business development & education, advocacy & networking, etc. Construction Resource Center - Oakland : Technical assistance, business guides, mentorship, alternative financing options, certification guidance, etc. San Francisco SBDC : Personalized advertising, training, and resources for business growth. Guidance in funding, certification, financial planning and project management, etc.

			<p>PG&E's WE&T Program: Training, technical support, and resources to build capabilities, networking, and access to project opportunities.</p> <p>MCE's Supplier Diversity plan: Workshops, certification, training opportunities, etc.</p> <p>CTW!: Understanding PLAs, how to become Union Signatory, workforce development, etc.</p>
Compliance and Accountability	Connect contractors with resources and supportive services to pursue relevant licenses and address citations, such as connecting contractors to technical assistance and SBA services to support them with compliance, licenses, best practices, and citation remediation.	Add ▾	<p>Contractors License Guru: education and support for obtaining or renewing a California contractor's license, helping with experience requirements, exam preparation, and navigating regulatory issues, while providing practice exams and tailored training materials.</p> <p>CSLB Experts: Navigate licensing process, assistance with legal and paperwork issues, etc.</p>
	Provide documentation on citation remediation steps. Examples of citations that can be remediated include citations issued by the CSLB and DIR Wage Theft Citations.	Aspirational ▾	<p>CSLB citation remediation</p> <p>DIR Wage Theft Citation remediation</p>

	Connect Contractors with resources and supportive services regarding permitting and approvals.	Add	BayREN Codes & Standards
	Contractor training regarding labor law, building codes, relevant ordinances, discrimination and harassment prevention, workplace safety, and handling of hazardous or environmentally harmful materials.	Aspirational	<p>Union Contractor Associations: NECA, SMACNA, PCA</p> <p>CSLB: Study guide for contractors to take the Hazardous Substance Removal Exam, regulatory compliance training on labor law and worker safety and discrimination.</p> <p>Zack Academy: HAZWOPER certification courses</p> <p>Cal Labor Law: Harassment prevention, compliance with California's regulations,</p> <p>CalChamber: Training on California's sexual harassment prevention laws, DEI bundle, etc.</p>
Insurance	Identify a list of recommended local insurance providers in the Bay Area that provide insurance to residential Contractors and/or provide contractors with the Insurance Company Search Tool created by the CSLB to support them in finding an appropriate insurance company. Source: CSLB	Add	Merriwether & Williams

	Organize group insurance procurement	Add	North Coast Builders Exchange: Workers' Comp Insurance
	Funding and financing support to subsidize this insurance package for businesses with current financial need.	Aspirational	
Accountability and Reporting	Standardized reporting forms and templates.	Aspirational	
Workforce, Community and Labor Agreements	Provide template contractor agreement which includes attestation that contractor will conform to the labor peace agreement/organizing neutrality agreement.	Aspirational	CTWI
	Provide model CWAs or PLAs and technical assistance with design and negotiation of CWAs or PLAs.	Aspirational	Jobs to Move America , Sabin Center , BlueGreen Alliance , Emerald Cities , Building and Construction Trades Councils, CTWI US Department of Labor : Project Labor Agreement Resource Guide US Department of Labor : Project Labor Agreements as Tools for Equity Columbia Law : Community Benefits Agreements Database
Fair Wage & Benefits	Low cost, accessible cash flow financing to help contractors carry the consistent cost of	Add	BAAQMD Climate Tech Finance , California iBank , Greenhouse Gas Reduction Fund

	maintaining High Road wages and benefits throughout ebbs and flows of work.		
	To support low cost cash flow financing, consider providing a percentage of the contract paid up front before the contractor starts work and/or progress payments before the contractor completes the work. Make remaining payments within 30 days.	Aspirational ▾	Related Ex: BayREN's HPWH midstream rebate program (administered by StopWaste) is flexible as to whether fully passed through to consumers or retained to support operating costs, a creative form of contractor funding.
	Program Admin/Implementer pays directly for the equipment, like the induction stove or HVAC system.	Aspirational ▾	
	Financial resources for small and minority-owned contractors and contractors with uneven financial track records to become High Road, such as no fee to contractors for bond guarantees; bid, performance and payment bond guarantees to surety companies; facilitated connections to lenders that provide cash flow financing; accounting cost subsidies; third-party funds administration; and contract financing.	Aspirational ▾	Merriwether & Williams Emerald Cities Collaborative Construction Resource Center

	Structure programs to provide sufficient funding for contractors to be able to pay at prevailing wage levels and provide benefits. (Up to 9% more according to the Industry Paper on Economic Impacts)	Aspirational ▾	
	Advocate for modifying cost-effectiveness requirements to allow for non-energy benefits such as quality jobs to be taken into account in program design.	Aspirational ▾	Possible advocacy venue: SB 100 proceedings regarding reviewing non-energy benefits.
	Identify a comprehensive list of: contractor needs, services currently provided, and any gaps in meeting contractor needs in the Bay Area.	Aspirational ▾	Resource: bw research on behalf of BAAWMD
Healthcare Benefits	Provide subsidies for contractors to provide compliant healthcare to employees for a defined period of time.	Aspirational ▾	Potential funder options: publicly financed through decarb programs, grants, or public private partnerships with insurance companies.
	Bulk purchasing for insurance options.	Add ▾	North Coast Builders Exchange - Group Health Insurance
	How to's for contractors on how to sign up for insurance.	Aspirational ▾	

	Provide technical assistance to contractors to identify and sign up for compliant healthcare plans.	Add	North Coast Builders Exchange - Group Health Insurance
	Advocate for Portable Benefits system for all workers. See this resource from the Aspen Institute.	Aspirational	
Retirement Benefits	Provide wealth management and retirement planning services to workers, including culturally accessible resources for workers to help navigate investing in their retirement plans.	Aspirational	
	Provide contractors with resources on programs to provide retirement benefits to workers and technical assistance to sign up for an appropriate plan.	Add	CalSavers
Paid Time Off/ Work Schedule	Provide employers in need with subsidies or “time off grants”, such as \$1,000 per year for each worker employed that phases out over time.	Aspirational	
Training and Experience Supports	Access to business management guides and consulting.	Add	Construction Resource Center
	Provide a list of recommended or required trainings and certifications.	Add	H RTP Certification Inventory

	Provide subsidies for training and certification fees.	Add ▾	Workforce Alliance of the North Bay, MCE, Sonoma Job Link
	Provide employers with subsidies or “training grants”, such as \$1,000 for each entry-level worker or apprentice employed.	Add ▾	MCE Green Workforce Pathways
	Provide wage subsidies to pay for workers to attend relevant trainings.	Aspirational ▾	
	Continued education for contractors: business management, backend support, electrification training, EE training, financial literacy, etc.	Add ▾	CPUC provides training with wage reimbursement. Construction Resource Center Emerald Cities E-Contractor Academy Revalue + Cypress Mandela Training Center
General Supports	Entrepreneurial support services for those who are looking to start up and/or grow a business (business model training, how to create an LLC, get a contractors license, hire employees, comply with HR requirements, etc.)	Add ▾	Construction Resource Center Emerald Cities E-Contractor Academy Small Business Development Centers (SBDC)
	How to secure and receive an SBA loan.	Exists ▾	Small Business Development Centers (SBDC)

	Entities or resources that can help contractors to bid on projects and respond to RFPs with complex requirements. Potentially provide template language for responses.	Aspirational ▾	Union Contractor Associations - NECA , SMACNA , PCA
	Training for contractors sales reps on how to effectively communicate the benefits of decarb/electrification and sell the services to homeowners.	Aspirational ▾	Union Contractor Associations - NECA , SMACNA , PCA CEC's TREC Program Manufacturers, such as Carrier , Sigler , etc.
	Facilitating connections amongst contractors to work on projects together.	Aspirational ▾	Union Contractor Associations - NECA , SMACNA , PCA
	List of entities who provide back office support for contractors. Subsidies for back office support.	Aspirational ▾	Executive Aspirin , CRC , " Designated Applicants " for the TECH program

Appendix E: Decarbonization Certification Inventory

The following certification inventory is designed to assist public entities and organizations in selecting training and certification programs to require, recommend, or incentivize for Contractors and workers in the residential decarbonization (energy efficiency and electrification) sector. These trainings and certifications were collected from the United States Department of Energy’s (DOE) [Building Science Education](#) website, the California Energy Commission’s (CEC) [Contractor Resources](#) page, The Switch is On TECH Clean California’s [Training Hub](#), and the [High Road Training Partnership: Bay Area Residential Building Decarbonization](#) letter to the CEC on their Inflation Reduction Act Contractor Training Program (TREC).

Note: To support the development of a robust building decarbonization workforce, the Department of Energy (DOE) vets and recognizes training and certification programs that are aligned with DOE goals and labels these programs as **Energy Skilled**. These **Energy Skilled** programs cover key occupations and knowledge areas relevant to DOE’s mission. The certifications endorsed by the DOE are labeled in **bold** with a “★” in front of their name in the list below.

Certification	Certifying Body	Description	Experienced Worker	Entry-Level Worker
Cal/OSHA 10 Hour Training for Construction/General Industry	Occupational Health and Safety (OSHA) Education Center	To satisfy Cal/OSHA California training requirements, all entry-level construction/general industry workers must complete at minimum the OSHA 10 Training. Upon completion the worker will receive an OSHA 10 DOL card.		X
Cal/OSHA 30 Hour Training for Construction/General Industry	OSHA Education Center	Cal/OSHA 30 training provides a greater variety of safety subjects and in-depth, industry-specific training. It is intended for supervisors and workers with health and safety responsibilities. Upon completion the worker will receive an OSHA 30 DOL card.	X	

First Aid/CPR Certification	Red Cross	CPR certification focuses on helping someone experiencing cardiac arrest. First aid provides knowledge on a broad range of medical emergencies, such as cuts, fractures, and choking.	X	X
EPA Section 608 Certification ³⁴	Energy Service Company (ESCO) Institute	Section 608 of the Federal Clean Air Act requires that all persons who maintain, service, repair, or dispose of appliances that contain ozone depleting refrigerants be certified in proper refrigerant handling techniques. This includes HVACR systems and heat pump water heaters.	X	X
California Advanced Lighting Controls Training Program (CALCTP)	California Advanced Lighting Controls Program (CALCTP)	The CALCTP Installation Program educates, trains and certifies C-10 licensed electrical contractors and state-certified general electricians in the proper installation, programming, and maintenance of advanced lighting controls systems.	X	
★ TECH & ESMAC Trainings ³⁵	Association for Energy Affordability (AEA)	For Contractors to participate in various programs installing heat pump water heaters (HPWH) (BayREN, SGIP, TECH, etc.) they must complete TECH & ESMAC training or manufacturer-specific training.	X	
Standard for Electrical Safety in the Workplace	National Fire Protection Association (NFPA)	NFPA 70E requirements for safe work practices to protect personnel by reducing exposure to major electrical hazards. NFPA	X	

³⁴ Technicians are required to pass an EPA-approved test that is specific to the type of equipment the technician seeks to work on before they receive the Section 608 Technician certification.

³⁵ You do not need to be a TECH licensed contractor to attend, although it is a program requirement to receive TECH Clean California HPWH Incentives. For information on the topics being covered, go [here](#).

		70E helps companies and employees avoid workplace injuries and fatalities due to shock, electrocution, arc flash, and arc blast, and assists in complying with OSHA 1910 Subpart S and OSHA 1926 Subpart K.		
Duct Air Leakage Testing (DALT)	International Certification Board (ICB)	The Duct Air Leakage Testing (DALT) Technician is knowledgeable in duct leakage standards and leakage testing preparation and procedures, gathers results and fills out reports, and can complete duct leakage testing in new building construction and existing buildings.	X	X
Building Envelope Installer	ICB	The Building Envelope Installer Technician is knowledgeable of field installation techniques for architectural sheet metal components and how they resist air, water, heat, light and noise transfer between the conditioned and unconditioned environment of a building.	X	
IAQ Ventilation Verification	National Energy Management Institute (NEMI)	The IAQ Technician/Ventilation Verification inspects the HVAC system and the building; takes measurements using specialized equipment; writes and submits a report for analysis and recommendations; and may make repairs when the cause of the IAQ issue is within their specialty.	X	

Total Building Energy Audit	ICB	The Total Building Energy Audit Technician knows the purpose and scope of measures for expressing and comparing building energy performance and takes measurements to determine the energy performance of HVAC systems.	X	
Mechanical Acceptance Test (T24)	ICB	The Mechanical Acceptance Test Technician possesses the knowledge and skills required to perform the mechanical acceptance tests identified in Section 120.5 of the California Building Energy Efficiency Standards.	X	
Testing, Adjusting, and Balancing Bureau (TABB) Certification (<i>specific to SMW 104</i>)	ICB ³⁶	The TABB Technician is responsible for testing, adjusting and balancing air and hydronic building environmental systems, which includes knowledge of airflow fundamentals, hydronic flow, refrigeration and electricity, and a familiarity with all types of HVAC equipment and systems.	X	X
TABB Commissioning Certification (<i>specific to SMW 104</i>)	ICB	The TABB Commissioning Supervisor is knowledgeable of the various commissioning types, associated processes, commissioning steps, roles and responsibilities of the commissioning agent, and the necessary skills, qualifications, roles and responsibilities of	X	

³⁶ For all TABB certifications in this inventory, follow the link and select from the “Contractor”, “Supervisor”, or “Technician” options and follow the steps to select the relevant certification for you.

		the commissioning authority.		
TABB Sound and Vibration Certification (<i>specific to SMW 104</i>)	ICB	The TABB Sound and Vibration Supervisor is knowledgeable of the basics of sound and mechanical vibration and uses techniques of measurement and analysis to create solutions to common problems in HVAC systems.	X	
Manufacturer-specific Trainings	TECH Clean California	For participation in certain HPWH programs, contractors must participate in manufacturer-specific trainings focused on appropriate applications, energy efficiency comparison to other water heater types, and selling strategies.	X	
★ NATE HVACR Professional Certifications	North American Technician Excellence (NATE)	NATE Certification represents real-world working knowledge of HVACR systems and validates the professional competency of service and installation technicians. Designed for professional technicians with at least two years of experience.	X	
★ NATE HVACR Entry-Level Certifications	NATE	This certification is designed to support technicians who have worked in the field for 6 to 12 months. Those who pass the exam receive a Ready-to-Work certificate, not a NATE certification.		X
Urban Green Council's GPRO Fundamentals of Building Green	Urban Green Council	Discover the connections between building systems and the foundational strategies for making them more sustainable. It is a 4-6	X	X

Training Program		hour training that is taught either in-person or remotely. Upon completion of the course and exam, the participant will receive a certificate.		
IBEW-NECA certifications for: <ul style="list-style-type: none"> • Instrumentation • Cable Splicing • Coyne Basic Life Support • Craft Certification • Solar PV • Standard Task Evaluation 	Electrical Alliance	The IBEW-NECA offers electrical apprentices certifications through the Electrical Alliance. ³⁷	X	X
BPI's Crew Leader Certification	Building Performance Institute (BPI)	By obtaining the Crew Leader certification, you prove that you have the ability to ensure the quality, and supervision, of the installation and performance of prescribed energy efficiency upgrades, as laid out in a scope of work.	X	
★ BPI's Home Energy Professional (HEP) Energy Auditor Certification³⁸	BPI	Once certified, you will be able to evaluate the energy efficiency, health, and safety of a home. You will gain in-depth knowledge of how to use diagnostic equipment and modeling software to identify areas for energy savings, produce an audit report, and develop a	X	

³⁷ Contractors must be licensed. Apprentices or workers participating in a training program do not have to be licensed, but they must be carrying an electrical apprentice or trade school card.

³⁸ When you have earned the Energy Auditor Certification, BPI will also grant the Building Analyst Technician (BA-T) and the Building Analyst Professional (BA-P) certifications for an administrative fee.

		prioritized scope of work for your customer.		
★ BPI's Building Analyst Technician³⁹/Professional (BA-T & BA-P)	BPI	The BA-T covers data collection and diagnostic testing. The BA-P covers the principles of using computer software to model the energy upgrade potential of a home and developing a scope of work.	X	
BPI's Healthy Homes Evaluator ⁴⁰	BPI	A Healthy Home Evaluator assesses home-based environmental health and safety hazards and provides a prioritized list of recommendations to address those hazards.	X	
BPI's Quality Control Inspector	BPI	By earning this certification, you prove that you can verify the compliance of retrofit work performed based on work plans and standards, conduct audits and inspections using diagnostic equipment, and can develop reports that specify corrective actions to achieve whole house performance.	X	
BPI's AC and Heat Pump Professional	BPI	By achieving this certification, you will prove that you understand the role of refrigerant-based mechanical systems and their interaction with other building systems.	X	

³⁹ BPI's Building Science Principles certificate is a prerequisite for the Building Analyst Technician (BA-T) certification.

⁴⁰ This certification builds upon BPI [Building Analyst \(BA\)](#), [Building Analyst Professional \(BA-P\)](#), [Multifamily Building Analyst, Energy Auditor \(EA\)](#), or [Quality Control Inspector \(QCI\)](#) certifications. The HHE was developed in partnership with the [Green & Healthy Homes Initiative \(GHHI\)](#)

BPI's Retrofit Installer Technician ⁴¹	BPI	Those who become certified Retrofit Installer Technicians prove by passing vigorous examinations that they can properly install residential envelope air sealing, HVAC duct sealing, insulation, windows and doors, mechanical ventilation, and roofing upgrades in single family homes and small multifamily housing.	X	
BPI's Heating Professional	BPI	Through this certification, you will optimize, and verify, the installation, operation, and maintenance of heating equipment in relation to other building systems. This certification helps the professional save the occupant energy and money, and ensure occupant comfort, health, and safety and addresses buildings with up to four (4) residential units.	X	
Building Operator Certification (BOC)	BOC	BOC is a nationally recognized, competency-based training and certification program that offers facilities personnel the improved job skills and knowledge to transform workplaces to be more comfortable, energy-efficient and environmentally friendly.	X	
NADCA Air Systems Cleaning Specialist (ASCS)	National Air Duct Cleaners Association (NADCA)	This landmark certification enhances one's professional development and is a world-wide credential recognizing a person's	X	

⁴¹ Various prerequisites including certifications, work experience, and training are required before you can be a certified retrofit installer.

		knowledge and skills related to HVAC system hygiene.		
NADCA Certified Ventilation Inspector (CVI) ⁴²	NADCA	NADCA's CVI certification was developed to recognize those industry professionals involved in the inspection of HVAC systems. Certified Ventilation Inspector (CVI) certified individuals are qualified to perform inspection of commercial HVAC systems.	X	
★ HVAC Excellence Employment Ready Certifications	ESCO	HVAC Excellence offers Employment Ready Certifications, designed specifically for students and entry level technicians. Categories include: Fundamentals of HVACR, Heating and Cooling Essentials, Modern Refrigeration and Air Conditioning, & Refrigeration and Air Conditioning Technology.		X
American Society of Heating, Refrigeration, and Air-Conditioning Engineers Certification (ASHRAE)	ASHRAE	Professionals working in any area related to heating, ventilation, cooling, or refrigeration may find that ASHRAE certification will provide them with greater opportunities for career advancement.	X	
★ Building Energy Assessment Professional Certification (BEAP)	ASHRAE	The BEAP certification, an ANSI-Accredited Personnel Certification Program, validates competency to assess building systems and site conditions; analyze and evaluate equipment and energy usage; and recommend strategies to optimize	X	

⁴² In order to sit for the CVI Certification Exam an individual must hold an active [Air Systems Cleaning Specialist \(ASCS\) certification](#).

		building resource utilization.		
<p>★ Residential Energy Services Network (RESNET) Energy Rater Certification</p>	<p>RESNET or CalCERTS</p>	<p>A Certified Home Energy Rater is trained and certified by an accredited Home Energy Rating Provider to inspect and evaluate a home’s energy features, prepare a home energy rating and make recommendations for improvements that will save the homeowner energy and money.</p>	X	
<p>★ Home Energy Rating System Program (HERS)</p> <ul style="list-style-type: none"> ● Residential Alterations ● Residential New Construction ● Nonresidential ● Solar Certification for NSHP ● Whole Home 	<p>CalCERTS</p>	<p>The HERS Program, also called the Field Verification and Diagnostic Testing Program, is a way to ensure that the various features of a home meet the California Building Energy Efficiency Standards (Energy Code).</p>	X	
<p>★ Building Science Institute’s Energy Code Compliance Specialist Certifications:</p> <ul style="list-style-type: none"> ● Energy Code Compliance Specialist ● ENERGY STAR Verifier ● Zero Home Energy Verifier 	<p>Building Science Institute (BSI)</p>	<p>BSI’s home energy rating system is recognized by the EPA as an ENERGY STAR® Home Certification Organization (HCO), and by the Department of Energy as a National Home Certification Organization for Zero Energy Ready Home.</p>	X	

<p>★ Association of Energy Engineers Certified Energy Auditor (CEA) and Certified Energy Manager (CEM) Certifications</p>	<p>AEE CEA & AEE CEM</p>	<p>The Certified Energy Manager program raises the professional standards, both technical and ethical, of those engaged in energy efficiency and energy management.</p>	<p>X</p>	
<p>Building Science Principles Certification</p>	<p>BPI</p>	<p>Earning the Building Science Principles (BSP) Certificate of Knowledge is your first step into the world of energy efficient home performance. You will learn some of the widely-used industry terminology related to building science.</p>		<p>X</p>
<p>Infiltration and Duct Leakage Certification</p>	<p>BPI</p>	<p>Earning the Infiltration and Duct Leakage (IDL) certification is a simple, comprehensive, and affordable way for builders, remodelers, HVAC, insulation, and other contractors to gain the skills needed to offer duct leakage and blower door tests, in compliance with IECC codes for new home construction or existing home remodels.</p>		<p>X</p>
<p>Air Leakage Control Installer Certification</p>	<p>BPI</p>	<p>The Air Leakage Control Installer certification verifies the ability to tighten the building envelope, reduce energy loss from air leakage, and better indoor air quality by reducing pollutants and allergens. Installers improve thermal comfort and energy efficiency through the proper installation of dense-pack insulation materials.</p>		<p>X</p>

Healthy Housing Principles Certification	BPI	Earning the Healthy Housing Principles (HHP) Certificate of Knowledge proves your knowledge of how the different components of a home interact to affect occupant health.	X	X
Site Supervisor Certification	BPI	The Site Supervisor Certificate is for workers who supervise and assist in the retrofitting activities included in the scope of work. It ensures customer satisfaction and quality of work by identifying a worksite supervisor who has the needed knowledge, skills, and abilities.	X	

Appendix F: Model Labor Standards

The following Labor Standards are from related programs that were consulted in the development of the Partnership’s Recommended Labor Standards.

Example Labor Standards: Regional, Targeted Hire & Diverse Business Enterprises

- [East Bay Building Trades Councils’ H RTP Proposed Standards](#). The Construction Trades Workforce Initiative’s labor standards include regional targeted hire requirements to ensure the participation of disadvantaged workers and/or graduates from approved MC3 pre-apprenticeship programs.
- [Self-Generated Incentive Program \(SGIP\)](#). To be prioritized within the SGIP HPWH eligible contractor list, participating contractors can offer a low-income or disadvantaged community resident training program.
- [Adams Broadwell CEC RFI Response 1/20/23](#). One of Adams Broadwell’s proposed workforce standards for the Equitable Building Decarbonization Direct Install Program requires all participating contractors to demonstrate a long-term commitment to providing career pathway opportunities to workers from disadvantaged communities either through participation in a state-approved apprenticeship program in the relevant trade or through the establishment of targeted hiring goals along with “first hire” agreements with local job development entities.
- [San Francisco Local Hire Policy for Construction](#). San Francisco’s Local Hire Policy for Construction includes the following requirements which apply to each Prime Contractor and Subcontractor that performs Project Work in excess of the Threshold Amount:
 - The mandatory participation level shall be 30% of all Project Work Hours within each trade performed by Local Residents (with the intent to increase to 50%), with no less than 15% of all Project Work Hours within each trade performed by Disadvantaged Workers.
 - **Disadvantaged Worker:** A Local Resident who (a) resides in a census tract within the City with a rate of unemployment in excess of 150% of the City unemployment rate, as reported by the State of California Employment Development Department; or (b) at the time of commencing work on a Covered Project has a household income of less than 80% of the AMI, or (c) faces or has overcome at least one of the following barriers to employment: being homeless; being a custodial single parent; receiving public assistance; lacking a GED or high school diploma; participating in a vocational English as a second

- language program; or having a criminal record or other involvement with the criminal justice system.
 - At least 50% of the Project Work Hours performed by Apprentices within each trade shall be performed by Local Residents, with no less than 25% of Project Work Hours performed by Apprentices within each trade to be performed by Disadvantaged Workers.
- Ava Community Energy. Local Hire Definition: A stated preference for project employment opportunities for qualified workers in descending priority:
 - A resident within the nearest communities in proximity to the project, by radius as reasonably determined on a project-by-project basis. Such radius will target a distance that is within reasonable daily commuting distance;
 - Additional preference shall be given, where the radius includes a city, town, or census-designated location within Ava’s service territory, to the workers within those portions of the service territory.
 - A resident within the county where the project is being constructed;
 - A resident within Ava’s service territory.
- Equity Priority Worker: A jobseeker who, at the time of hiring or within the last twelve months, satisfies at least one of the following categories:
 - Currently unhoused or at risk of homelessness
 - Being a custodial single parent
 - Currently receiving public assistance
 - Lacking a GED or high school diploma
 - Having been continuously unemployed or underemployed for the past 6 months
 - Having been emancipated from the foster care system
 - Being a veteran of the United States Military
 - Being a member of a tribal community associated with indigenous people
 - Having a previous incarcerated or justice involvement history
 - At-Risk Youth: a person 18-24 years old who is disconnected from school and/or work
 - Low income (household income is below the current HUD threshold for Low Income Households in their county of residence)
- Small, Local, and Emerging Business: A local business that is certified small or emerging under the following requirements:
 - Local Business - A business having a fixed office with a street address in Ava’s service territory, and having a valid business license issued by a jurisdiction within Ava’s service territory for at least 6 months.
 - Small Business - A business which has been certified to meet the U.S. Small Business Administration (SBA) size standards for its classification.

- Emerging Business - A business which has been certified to meet less than one half the U.S. SBA size standards for its classification and has been in business less than 5 years.
- From Ava Community Energy's Targeted Hire Pipeline Program requires:
 - Partners with a Multi-Craft Core Curriculum (MC3) pre-apprenticeship program or programs, or equivalent industry and state-recognized Attachment Staff Report Item 11A certificated career training and placement program that recruits, supports, and places Equity Priority Workers in skilled construction trades; and
 - Creates opportunities for an Equity Priority Worker to enter Registered Apprenticeship Programs and/or obtain work hours needed to successfully complete their apprenticeship; or
 - Recruits and places income-qualified Journeypersons.
- Ava Community Energy will prioritize Energy Offtake Agreements where the developer of highest priority projects will commit to:
 - A multi-trade project labor agreement that incorporates Ava's Local and Targeted Hire objectives as follows:
 - A goal of 30% of all project labor hours performed by Local Hires, and;
 - Participation in a Targeted Hire Program with a goal of 10% of all project hours performed by Equity Priority Workers. 3. Demonstrated commitment to subcontracting with Small, Local, and Emerging Businesses.
 - Medium priority projects will commit to:
 - Demonstrated commitment to Local and Targeted Hire, including utilization of a multi-craft core curriculum (MC3) pre apprenticeship program, or equivalent industry and state recognized pre-apprenticeship certification, for outreach, preparation, support and referral of Targeted Hires.
 - Demonstrated commitment to subcontracting with Small, Local, and Emerging Businesses.
- [Los Angeles County Local & Targeted Worker Hire Programs](#). LA County approved a policy in October 2016 that imposes a 30% Local Hire goal and a 10% Targeted Worker hire goal on most major construction projects approved by the Board.
 - What is a Local Worker? An individual living within the Tier 1 or Tier 2 ZIP codes of the County. Before employing worker(s) from Tier 2 Zip Codes, the available pool of local residents whose primary place of residence is within Tier 1 ZIP Codes must first be exhausted.
 - TIER 1: means ZIP Codes within five (5) miles of the proposed project site, and where the average percentage of households living below

- 200 percent of the Federal Poverty Level (FPL) is greater than the County average for such households.
 - TIER 2: means any ZIP Codes within the County where the average percentage of households living below 200 percent of the FPL is greater than the County average for such households.
 - What is a Targeted Worker? A Targeted Worker is defined as a resident of the County who has indices of career-limiting circumstances, specifically one or more of the following:
 - has a documented annual income at or below 100 percent of the Federal Poverty level
 - no high school diploma or GED
 - a history of involvement with the criminal justice system
 - protracted unemployment
 - is a current recipient of government cash or food assistance benefits
 - is homeless or has been homeless within the last year
 - is a custodial single parent
 - is a former foster youth; or
 - is a veteran, or is the eligible spouse of a veteran of the United States armed forces
 - [Los Angeles Metropolitan Transit Authority Project Labor Agreement](#). All contractors working on Los Angeles Metro construction projects covered by a PLA and CCP will be required to comply with certain targeted hiring requirements:
 - The PLA requires 40% participation of construction workers residing in economically disadvantaged areas which are individuals residing within:
 - Economically Disadvantaged Areas (zip codes with annual median income less than \$40,00 per year), or
 - Extremely Economically Disadvantaged Area (zip codes with annual median income less than \$32,000 per year)
 - The PLA requires a 10% participation of disadvantaged workers who reside in these areas and face at least two barriers to employment:
 - Being homeless
 - Being a custodial single parent
 - Receiving public assistance
 - Lacking GED or High School Diploma
 - Having a criminal record
 - Suffering from chronic unemployment
 - Emancipated from foster care
 - Being a veteran of the Iraq, Afghan war, or
 - Being an apprentice with less than 15% of the hours required to graduate to journey level

- [CA Green New Deal Coalition on Equitable Building Decarb Direct Install \(DI\) Program - June, 2023 Letter to the CEC](#). California’s Green New Deal Coalition developed a letter to the CEC to influence their Equitable Building Decarbonization Direct Install Program. They suggested the program set specific requirements and goals regarding local and targeted hiring which should include but not be limited to:
 - The hiring of workers residing in disadvantaged communities
 - Women
 - BIPOC
 - Unhoused or formerly unhoused, and
 - Individuals in reentry.
- The program should also require participating contractors to demonstrate a long-term commitment to providing career pathway opportunities to workers from disadvantaged communities through participation in state certified apprenticeships and pre-apprenticeships. Specifically, contractors should either participate in an apprenticeship program approved by the California Division of Apprenticeship Standards and subject to the State of California Plan for Equal Opportunity in Apprenticeship or have:
 - (1) a formal First Source Hiring Agreement with a governmental, community college, trade school, multi-craft core curriculum pre-apprentice program, or non-profit workforce development agency that has a proven track record of training and providing career opportunities to disadvantaged workers; and
 - (2) adopted workforce diversity and inclusion goals including a process to monitor and track success in meeting these goals.
- The CEC should provide technical assistance for BIPOC and/or women-owned contractors and small businesses: Provide multiple avenues of support to encourage their participation in this program, such as technical assistance, mentorship, and alternative financing options for BIPOC and/or women-owned contractors.
- [Portland Clean Energy Fund Workforce and Contractor Equity Agreement](#). All construction projects utilizing more than \$350,000 of Portland Clean Energy Funds (PCEF) must draft a plan for achieving or maintaining inclusive contracting and workforce utilization of PCEF priority populations (Black people, Native American/Alaska Native people, other people of color; people with low income, women, transgender people, two-spirit people, gender non-conforming people, other groups of people who experience gender or sex-based discrimination, and/or people who experience disabilities).
- In addition, they must commit to 30% of workers representing PCEF priority populations. PCEF also requires the creation of a Safe and Respectful Jobsite Policy– Provide a jobsite policy that addresses how the organization will handle issues of discrimination (such as sexism or racism) and bullying (such as harassment or

intimidation), consistent with Oregon's Workplace Fairness Act. Policy shall be distributed to all workers on PCEF funded projects and include:

- Threatening acts of hate or violence shall be immediately reported to the appropriate authorities.
- Each organization shall define internal procedures for:
 - Investigation- All incidents of hate, intimidation, or harassment shall be documented, including photos and names of witnesses where applicable.
 - Response- Include clear chain of command, shut-down protocols, accountability, and compliance measures in addition to reporting incidents and outcomes, timeframe, and process for removal of hate crime symbols.
 - Support and protection of impacted workers and whistleblowers-Define how leadership will report on steps taken to address the incident, how workers will be protected against retaliation, where workers can go for support, and anti-retaliation policy and training.
- [CA Solar on Multifamily Affordable Housing Program - SOMAH Program Handbook](#). While local and targeted hiring are not currently required by the SOMAH Program, they are strongly encouraged.
 - For the purposes of SOMAH projects, A Local Hire is defined as an individual who is domiciled within the county in which the SOMAH project is taking place.
 - A Targeted Hire may or may not live within the county in which the SOMAH project is taking place. Individuals meeting the targeted hire goal can include residents of disadvantaged communities (per CalEnviroScreen eligibility), affordable housing residents, women, people of color, and other individuals who have faced or who have overcome at least one of the following barriers to employment: being homeless, being a custodial single parent, receiving public assistance, lacking a GED or high school diploma, participating in a vocational English as a second language program, or having a criminal record or other involvement with the criminal justice system.
 - The SOMAH PA team will ensure there are trainees broadly available who meet either the local hire or targeted hire definitions.
- The Central Coast Community Energy Project defines Local Hire as: A worker who satisfies one of the following categories in descending priority:
 - 1. Is a resident within the nearest city, town, or census-designated location within a determined proximity of the project, by radius as reasonably determined on a project-by-project basis; a) Additional preference shall be given, where the radius includes a city, town, or census-designated location within Monterey, San Benito, San Luis Obispo, Santa Barbara, and Santa Cruz

- counties (“3CE Service Territory Counties”), to the workers within those portions of the Service Territory Counties;
 - 2. Is a resident within the County where the project is being constructed;
 - 3. Is a resident of the 3CE Service Territory Counties.
 - [Central Coast Community Energy Project Selection Criteria](#). The Central Coast Community Energy Project defines Local Hire as: A worker who satisfies one of the following categories in descending priority:
 - 1. Is a resident within the nearest city, town, or census-designated location within a determined proximity of the project, by radius as reasonably determined on a project-by-project basis; a) Additional preference shall be given, where the radius includes a city, town, or census-designated location within Monterey, San Benito, San Luis Obispo, Santa Barbara, and Santa Cruz counties (“3CE Service Territory Counties”), to the workers within those portions of the Service Territory Counties;
 - 2. Is a resident within the County where the project is being constructed;
 - 3. Is a resident of the 3CE Service Territory Counties. The Central Coast Community Energy Project defines Targeted Hire as: An individual who qualifies at least one of the following under-represented or under-employed populations:
 - 1. experiencing homeless;
 - 2. being a custodial single parent;
 - 3. currently receiving public assistance;
 - 4. lacking a GED or high school diploma;
 - 5. has been continuously unemployed for 6 months;
 - 6. has been emancipated from the foster care system;
 - 7. is a veteran of the United States military;
 - 8. residing in an area that falls in the top 20th percentile of the CalEnviroScreen 4.0 score;
 - 9. is a member of a tribal community.
 - [Clean Energy Works Oregon](#). Clean Energy Works Oregon defines Local Hire as: At least 80% of workers are hired from within 50 miles of the project, or otherwise defined by the local community.
 - They define a Diverse Workforce as: Historically underrepresented or economically disadvantaged people will perform not less than 30% of total trades and technical project hours. People of color, women, veterans, disabled individuals and formerly incarcerated individuals are included in this definition of diverse workforce.
 - They define Diverse Business Participation as: Businesses owned by historically disadvantaged or underrepresented people will make up not less than 20% of all dollars in Clean Energy Works Oregon projects.

- [JMA US Employment Plan](#). From the JMA US Employment Plan, [Disadvantaged Worker](#) is defined as an individual who
 - (a) prior to commencing work on the Project, has a household income of less than 50 percent of the Area Median Income (AMI) as defined by the [U.S. Department of Housing and Urban Development](#) and,
 - (b) faces at least one of the following four (4) barriers to employment:
 - a. Being a Disabled Worker,
 - b. Being a current recipient of Supplemental Nutrition Assistance Program (SNAP) benefits or Temporary Assistance for Needy Families (TANF) benefits because of extreme poverty,
 - c. Being a Veteran;
 - d. Being an individual who resides in an Area of Concentrated Poverty. (To determine an employee’s eligibility for this status, enter the employee’s home address or census tract within [HUD’s QCT mapping application](#).)
- [City of Denver - Climate Action, Sustainability & Resilience Labor Standard Language](#). The City of Denver’s Labor Standard language for their Climate Action, Sustainability & Resilience Plan proposes targeted and local hire requirements to ensure the participation of underrepresented workers and/or graduates from approved pre apprenticeships, trainings, and other workforce programs as well as the hiring of local Denver residents. The following are the hiring goals outlined in the Plan:
 - 20% of new hires will be local recruits residing in the City and County of Denver.
 - 20% of new hires will be from disadvantaged and under-represented workers from NEST and Denver Neighborhoods.
 - 15% of hires will come from CASR approved workforce training programs.
 - 30% or more of the total project work hours to be completed by the number of employees or hours worked that include residents of the City and County of Denver.
- The following are preferred contractor/vendor qualifications:
 - Union signatory Contractor, Minority, Women Business Enterprise, and/or Division of Small Business Opportunity (DSBO) Certified Contractors Preferred.
- [Seattle Community High Road Agreement](#). From the Seattle Community High Road Agreement, Contractors applying to their qualified Contractor Pool will get additional points in the application process for the following factors:
 - Being Local Businesses;
 - Being Small Businesses;

- Being Minority-owned Businesses;
- Being Women-owned Businesses;
- Being Veteran-owned Businesses;
- Being an employee-owned cooperative business;
- Being a nonprofit corporation or social enterprise;
- Quality-assurance certifications beyond the program minimums, including employing a certified workforce and other quality indicators ;
- Demonstrating substantial subcontracting relationships with Minority-, or Women-owned Businesses that will be utilized in work performed under this program;
- Demonstrating a history of employing Targeted Workers (Targeted Workers as defined in Section IV, below), especially Targeted Workers drawn from community-based job training programs;
- Demonstrating that they provide continuing education to all employees;
- Demonstrating utilization of state registered apprentices;
- Providing specific benefits to employees, with additional points awarded for each of the following:
 - Provision of fully-employer paid health insurance to employees
 - Provision of dental and vision insurance to employees
 - Provision of health insurance for workers’ families
 - Provision of pension benefits for employees;
- Demonstrating a track record of quality performance of residential retrofits.
- For purposes of the program, “Targeted Workers” shall mean any of the following:
 - Low-income Individuals;
 - Veterans and current members of the National Guard and Reservists;
 - Individuals with Barriers to Employment. Barriers to Employment means homelessness; being a custodial single parent; receiving public assistance; lacking a GED or high school diploma; having a criminal record or other involvement with the criminal justice system; or being historically disenfranchised or disadvantaged by previous policies and practices and as a result being disproportionately represented in dropout rate, unemployment, lack of business ownership and criminal justice systems.
- [Self-Generated Incentive Program \(SGIP\)](#). To be prioritized within the SGIP HPWH eligible contractor list, participating contractors can have a CSLB registered primary business address located in the top 25% of disadvantaged communities in a given IOU’s service territory according to CalEnviroScreen

Example Labor Standards: Compliance and Accountability

- [East Bay Building Trades Councils HRTP Proposed Standards](#). The Construction Trades Workforce Initiative’s Labor Standards outline Contractors must:
 - Demonstrate a history of abidance with building code and labor laws.

- Adopt a Multi-Craft Community Workforce Agreement or Project Labor Agreement negotiated with the Building Trades.
- [TECH Professional Participation Agreement \(TPPA\)](#). All Trade Professionals who participate in the TECH program shall:
 - Comply with any and all applicable laws, codes and ordinances and obtain all required licenses, finalized permits or approvals from the appropriate authorities.
 - Participating Trade Professional and its subcontractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religions creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition (cancer), age (over 40), marital status, and denial of family care leave.
 - Participating Trade Professional attests that they conform to industry regulations for treating hazardous or environmentally harmful materials at all times during participation in the Program and their employees are properly trained.
 - Participating Trade Professional attests that they conform to industry regulations for working safely at all times during participation in the Program and their employees are properly trained.
 - Contractors must have insurance minimums:
 - General liability - at least \$1M each occurrence/\$2M aggregate for bodily injury, property damage & personal injury,
 - Workers comp - no less than \$1M per event of injury or death,
 - Automobile liability - no less than \$1M each accident for bodily injury and \$500,000 each accident for property damage.
- [Clean Energy Works Oregon](#). Clean Energy Works Oregon's High Road Standards include:
 - Contractors must demonstrate a history of compliance with federal and state laws.
 - Cannot be on BOLI or Federal Exclusion Parties List System.
- [Portland Clean Energy Fund](#). When working on projects funded by the Portland Clean Energy Fund, Contractors, grant recipients, and subcontractors per Federal Law shall not oppose worker efforts to organize, nor shall they retaliate or otherwise create a hostile environment to workers who choose to engage in collective conversations or action regarding workplace issues (NLRB Employee Rights).
- [Self-Generated Incentive Program \(SGIP\)](#). To be included in the SGIP HPWH eligible contractor list, participating contractors must:
 - Have no unresolved CSLB license citations in the previous 5 years.
 - Have no unresolved Department of Industrial Relations wage claim violations in the previous 5 years.

- Provide proof of application for a permit from the Authority Having Jurisdiction for HPWH installations.
- Be insured and bonded per California state requirements.
- Hold a CSLB license appropriate for installation of HPWH's (C-36, C-10, C-4, C-20, B, etc.)
- Have no unresolved violations with Cal OSHA in the previous 5 years.
- [The Switch Is On](#). To enroll in The Switch is On Program, contractors must have: CSLB license number and expiration date.
- [BayREN HPWH Contractor Program](#). Contractors participating in BayREN's Heat Pump Water Heater program must maintain insurance meeting at least the minimum coverage amounts including:
 - Commercial general liability insurance with coverage of at least \$1,000,000 per event of bodily injury, property damage or personal injury or death.
 - Worker's compensation and employers' liability insurance with coverage in accordance with statutory minimums, but no less than \$1,000,000 per event of injury or death each accident.
 - Automotive liability insurance with coverage of at least \$300,000 per event of bodily injury or property damage.
- [BayREN Home+ Program](#). [Sample Insurance Certificate](#). Contractors in the BayREN Home+ Program will need to complete a Contractor Participation Agreement and demonstrate the following eligibility criteria:
 - Hold and maintain general commercial liability insurance coverage with a single limit of \$1,000,000 or higher per event
 - Hold and maintain worker's compensation insurance with a single limit of \$1,000,000 or higher per event
 - Hold and maintain automotive liability insurance with a single limit of \$1,000,000 or higher per event.
- [Clean Energy Works Oregon](#). Clean Energy Works Contractors must sign a labor peace agreement.
- [Alameda County Project Stabilization Agreement/CBA](#). PSA's will cover construction projects underwritten by the County of \$1 million or more. Where the County is providing at least 50% of the funding for a project having an actual bid amount of \$1 million or more, and is not awarding any construction contracts for the project and/or is not the lead agency for the project.
- [City of Richmond Community Workforce and Project Stabilization Agreement](#). Defined by the City of Richmond, "Project" means all construction projects paid for in whole or in part out of City funds, where the engineer's estimate or bid amount exceeds \$1 million.
- [Consideration of PLA's for Contra Costa County](#). Project threshold amount for PLA's in Contra Costa County - projects with an engineer's estimate of construction costs exceeding \$1 million will be subject to the PLA.

Example Labor Standards: Fair Wages

- [East Bay Building Trades Councils HRTP Proposed Standards](#). The Construction Trades Workforce Initiatives labor standards require prevailing wages at every contracting tier.
- [BlueGreen Alliance - Oregon HB 2021](#). From the BlueGreen Alliance’s “Advancing High Road Standards in Zero-Emission Transportation” report, employers should offer industry-specific or economy-wide wage and benefit standards that significantly exceed the California minimum wage or meet industry prevailing wages. Prevailing wages agreements and requirements are common in the construction industry – however this mechanism is not, and should not, be limited to construction projects. It also requires contractors to pay prevailing wages.
- [ORS 279C.800 et seq. Oregon HB 2021](#). Oregon state legislature established a state policy where contractors must pay the area wage standard for an hour’s work in the same trade or occupation in the locality where the labor is performed. Area wage standard includes the calculation of wages and fringe benefits per trade and locality and will be treated as standards.
- [CA Green New Deal Coalition Letter to the CEC on Equitable Building Decarb Direct Install \(DI\) Program - June, 2023](#). The California Green New Deal Coalition advocated for the CEC’s Equitable Building Decarb Program to require all participating contractors to satisfy prevailing wage and hour requirements. Specifically, contractors should pay all workers performing construction work a total wage and benefits package that is at least equivalent to the general prevailing wage rate as determined by the Department of Industrial Relations pursuant to Sections 1773 and 1773.9 of the California Labor Code. If a determination is made that the prevailing wage does not apply to project work, then the CEC should provide a wage floor provision similar to that in the SOMAH program.
- [Emerald Cities Collaborative MHDC CWA](#). Emerald Cities Collaborative Contractors (including Prime Contractor) shall pay contributions to the established employee benefits funds in the amount designated in the appropriate Schedule A on behalf of all covered employees and make all employee-authorized deductions in the amounts designated in the appropriate Schedule A; provided that only such bona fide employee benefits as accrue to the direct benefit of the employee (such as pension and annuity, health and welfare, vacation, apprenticeship, training funds, etc.)
- [California Labor Code](#). In the state of California, payment of workers at or above local or regional living wage standards as well as payment at or above regional prevailing wage standards where such standards exist for the occupations in question.
- [City of Denver - Climate Action, Sustainability & Resilience Labor Standard Language](#). In the city of Denver, Contractors must adhere to Prevailing Wage requirements if triggered. (I.e., living wage with health care

contributions). Once triggered: All Contractors and Subcontractors shall report wages and benefits for its employees subject to the Auditor's Office requirements.

- [SB 423](#). All construction workers employed in California in the execution of the development shall be paid at least the general prevailing rate of per diem wages for the type of work and geographic area, as determined by the Director of Industrial Relations pursuant to Sections 1773 and 1773.9 of the Labor Code, except that apprentices registered in programs approved by the Chief of the Division of Apprenticeship Standards may be paid at least the applicable apprentice prevailing rate.
- [CEC Equitable Building Decarbonization Direct Install Program](#). Within the CEC's Equitable Building Decarb Program it is stated that pursuant to Public Resources Code section 25665.3(f), "Projects funded pursuant to the direct install program shall be performed by workers paid prevailing wage where possible and when applicable." Building retrofits conducted using Equitable Building Decarbonization Direct Install Program funds will likely trigger public works laws (California Labor Code Section 1720, et seq.), a requirement of which is to pay prevailing wages. Administrators should assume their projects are public works, and that prevailing wage requirements apply, unless they obtain a determination to the contrary from DIR or an appropriate court. Administrators are also responsible for ensuring their subcontractors comply with applicable prevailing wage requirements.
- [CA Solar on Multifamily Affordable Housing Program - SOMAH Program Handbook](#). The Contractor working on SOMAH projects must pay job trainee(s) for time spent on each SOMAH installation, at a rate consistent with the primary Contractor's entry level or temporary worker wage, or 1.4x the minimum wage of the city in which the SOMAH project is located, whichever is higher.
- [Clean Energy Works Oregon](#). Family-Supporting Wages is outlined within Clean Energy Works Oregon's High Road Labor Standards: All workers performing trade and technical hours on Clean Energy Works project retrofits will earn at least 180% of Oregon state minimum wage or the [CEW Family Supporting Wage](#) (see page 6), whichever is higher, for residential weatherization and energy efficiency retrofit work.
- [Seattle Community Power Works Evaluation Report](#). See additional detail on pg 7 of [Seattle Community High Road Agreement](#). The following programmatic wage rates (from approx 2010) for weatherization workers apply to all Community Power Works contractors and subcontracts:

Level	Wage	Fringe	Total
Entry (Year 1)	\$15.50	\$2.50	\$18.00
Mid (Year 2)	\$18.50	\$2.50	\$21.00
Advanced (Years 3+)	\$21.50	\$2.50	\$24.00

Fringe benefits are required when the employer does not provide medical benefits. If

an employer provides medical benefits and the employee refuses benefits, the employer is not required to pay fringe. If there is a grace period before medical benefits are provided, the employer must pay the fringe rate until the employee receives medical benefits. In addition to weatherization wage rates, the following rates apply for three specialized trades:

Category	Journey Rate	Fringe
*Electrician	\$30.44	n/a
*Plumber	\$34.69	n/a
HVAC (where there is furnace swap-out)	\$30.44	n/a

* These rates are established by State Prevailing Wage rates and are subject to change. Contractors are asked to consult <https://fortress.wa.gov/ini/wagelookup/prvWagelookup.aspx> and scroll to the Residential category for current wage rates. There are multiple Apprenticeship programs.

- [Portland Clean Energy Fund Workforce and Contractor Equity Agreement](#). In the Portland Clean Energy Fund’s Workforce and Contractor Equity Agreement, Contractors must adhere to Employee, Worker, Contractor, and Subcontractor Payment Guidelines. These payment requirements apply to all staff, employees, contractors, subcontractors, and workers who perform any work on PCEF-funded projects. “Contractors” are any non-employee hired by a grantee whether they provide physical improvements or other services.
 - PCEF Family Wage Requirement: All employees and workers of grantee and grantee’s contractors and subcontractors shall be paid at least 180% of relevant state minimum wage for time worked on the PCEF funded project. - AND -
 - Prevailing Wage Requirement: All PCEF-funded construction projects that are \$350,000 or greater at a single site, shall adhere to State Prevailing Wage requirements. Payment of prevailing wage shall include fringe and be made to workers in trades for which a prevailing wage is defined.
- [Adams Broadwell CEC RFI Response 1/20/23](#). Adams Broadwell advocated for the CEC’s EBD Program to require payment of prevailing wages and compliance with the apprenticeship requirements applying to public works projects set forth in Labor Code Section 1777.5.
- [City of Berkeley](#). The City of Berkeley outlines Living Wage: Vendors paid more than \$25,000 per year by the City of Berkeley must comply with the Living Wage

Ordinance. To comply, vendors must pay a living wage (set by the City), provide health benefits or cash in lieu, and provide paid time off.

- [City of Berkeley Workforce Standards and Enforcement](#). Wages: All employers subject to this chapter will be required to pay the Living Wage Rate. Published July 2023 it is \$18.83/hour. By May 1 of each year, the Department shall publish and make available to Employers a bulletin announcing the adjusted Living Wage rate, which shall take effect on July 1 of each year.
 - Time-Off: Employees shall be entitled to 22 days off per year for sick leave, vacation, or personal necessity. 12 of the required days shall be compensated the same rate as regular compensation. 10 of the required days may be uncompensated.

Example Labor Standards: Healthcare

- [East Bay Building Trades Councils H RTP Proposed Standards](#). The Construction Trades Workforce Initiative’s proposed high road labor standards include providing portable healthcare at Covered California’s Silver Level and should be available to dependents.
- [Clean Energy Works Oregon](#). Health Coverage is outlined in Clean Energy Works Oregon’s high road labor standards: All workers on Clean Energy Works projects will receive health insurance coverage, or be paid a minimum of \$2.50 per hour in lieu of health insurance, as detailed in [Exhibit D](#) (see page 3).
- [BlueGreen Alliance - Oregon HB 2021](#). Within the 100% Oregon Clean Energy Opportunities HB 2021 Bill, the BlueGreen Alliance advocated for the bill to require contractors to offer healthcare benefits.
- [SB 423](#), [SB 4](#), [AB 2011](#). Within the California legislative bills SB 423, SB 4 and AB 2011, each contractor with construction craft employees shall make health care expenditures for each employee in an amount per hour worked on the development equivalent to at least the hourly pro rata cost of a Covered California Platinum level plan for two adults 40 years of age and two dependents 0 to 14 years of age for the Covered California rating area in which the development is located. A contractor without construction craft employees shall show a contractual obligation that its subcontractors comply with this clause.
 - Reports on a monthly basis, while the project or contract is being performed, demonstrating compliance with this chapter.
- [SB 423](#), [SB 4](#), [AB 2011](#). Within the California legislative bills SB 423, SB 4, and AB 2011, a joint labor-management cooperation committee established pursuant to the federal Labor Management Cooperation Act of 1978 (29 U.S.C. Sec. 175a) shall have standing to sue a construction contractor for failure to make health care expenditures pursuant to clause (iii) in accordance with Section 218.7 or 218.8 of the Labor Code.

Example Labor Standards: Retirement Benefits

- [East Bay Building Trades Councils HRTP Proposed Standards](#). The Construction Trades Workforce Initiative's high road labor standards require portable retirement benefits.
- [BlueGreen Alliance - Oregon HB 2021](#). The BlueGreen Alliance advocated in the Oregon legislative bill HB 2021 to require contractors to offer retirement benefits.

Example Labor Standards: Paid Time Off

- [City of Berkeley](#). The City of Berkeley's Paid Sick Leave Ordinance: Employers must give their staff one hour of paid sick leave for every 30 hours worked. Small business employers (with fewer than 25 employees) may cap an employee's accrued paid sick leave at 48 hours and may cap the use of paid sick leave to 48 hours per year. Employers with 25 or more employees may cap an employee's accrual of paid sick leave at 72 hours, but may not cap how much paid sick leave an employee uses in a calendar year.

Example Labor Standards: Work Schedule Examples

- [City of Berkeley](#). Berkeley Family Friendly and Environment Friendly Ordinance: Right to request a flexible or predictable work schedule. The ordinance applies to employers with 10 or more employees. The employer does not have to grant the request, but does have to respond in writing within 21 days. Employees must have worked at least three months and must work at least eight hours per week on a regular basis to be covered by the ordinance.
- [City of Berkeley](#). From the City of Berkeley's Fair Work Week Employment Standards: *Two Weeks' Advance Notice of Work Schedule*. A covered employer shall provide its employees with at least two weeks' notice of their work schedules by doing one of the following:
 - Posting the work schedule in a conspicuous place at the workplace that is readily accessible and visible to all employees; or
 - Transmitting the work schedule by electronic means, so long as all employees are given access to the electronic schedule at the workplace.
- For new employees, a covered employer shall provide the new employee prior to or on their first day of employment with an initial work schedule.

Example Labor Standards: Training and Certification Labor Standard Examples

- [East Bay Building Trades Councils HRTP Proposed Standards](#). The Construction Trades Workforce Initiative's high road labor standards require participating in a State approved apprenticeship program that trains a skilled workforce.
- [Adams Broadwell CEC RFI Response 1/20/23](#). Adams Broadwell advocated for the CEC's EBD Program to require payment of prevailing wages and compliance with the

apprenticeship requirements applying to public works projects set forth in Labor Code Section 1777.5. The Program should prioritize bidders that commit to require the use of a skilled and trained workforce as set forth in Public Contracts Code section 2600, et seq.

- For all participating contractors, require that at least 50% of the on-site workforce are comprised of workers who have met one or more of the following requirements:
 - (1) graduated from a relevant state or federal approved apprenticeship program;
 - (2) graduated from a two year (or greater) community college program in the applicable trade; or
 - (3) have five years of experience in the relevant trade and have completed the relevant manufacturer's training in installation of the equipment (type and brand) being installed with such training either including a hands-on training component and the provision of a certificate or other verification from the manufacturer as to completion; or with such training otherwise having been reviewed and approved by the Commission.
- [CA Green New Deal Coalition Letter to the CEC on Equitable Building Decarb Direct Install \(DI\) Program - June, 2023](#). California's Green New Deal Coalition's advocacy letter to the CEC on their EBD program suggested that a specific percentage of project work hours be performed by workers enrolled and participating in state certified apprenticeship programs.
- Require all contractors in the DI program to utilize a skilled and trained workforce as set forth in Public Contracts Code section 2600. All work should be performed by a workforce that meets the following requirements:
 - (a) has completed an applicable California or federal accredited apprenticeship;
 - (b) is currently enrolled in an applicable California or federal accredited apprenticeship program; or
 - (c) has completed at least five years of work experience at the journey level as defined by the California Department of Industrial Relations and passed a practical and written system installation competency test applicable to the work being performed and received credentialed training specific to the installation of the technology being installed.
- [City of Denver - Climate Action, Sustainability & Resilience Labor Standard Language](#). To enforce and uphold the City of Denver's CPF and equity goals, quality training program requirements include:
 - Provide work-based learning experiences through paid on-the-job training, pre apprenticeships and/or apprenticeships. Paid work-based learning experiences will be no less than \$20/hr ([should consider higher threshold for Denver residents](#)).
 - Provide certifications, trainings, and job placement needed to do

- decarbonization work.
 - Provide upskilling and training on new technology/certifications to existing and transitioning workforce.
 - Provide employers/contractors with scholarships or stipends for upskilling training or certifications.
- [DAC-SASH Program](#). Each project installation funded by DAC-SASH must include at least [one eligible job trainee](#) to work on the installation. The DAC-SASH Program will incorporate job training programs intended to promote green collar jobs in disadvantaged communities and to develop a trained workforce that will help foster a sustainable solar industry in California. Job trainees must work on: installing electrical components, installing mechanical components, completing system installation, conduction maintenance & troubleshooting, project design or project management.
- [Clean Energy Works Oregon](#). Within Clean Energy Works Oregon's high road standards, the Highly Skilled Workforce standard states: Resources for continuing education and certification are available for those coming into the industry as well as those wanting to increase their opportunities for upward mobility within the industry through registered apprenticeship and other career pathway trainings. Contractor and their subcontractors must report when they hire a new entry-level weatherization worker and specify from which [designated training provider](#) (see page 15), or if they are a state registered apprentice. Must have an OSHA 10-hour safety trained workforce.
- [Portland Clean Energy Fund Workforce and Contractor Equity Agreement](#). PCEF Safe & Respectful Worksite Training within Portland Clean Energy Fund's Workforce and Contractor Equity Agreement - Require all contractors, subcontractors, and workers (including apprentices) to complete a PCEF sponsored or approved respectful workplace training. This requirement applies to all workers and supervisors on PCEF funded projects, with an exemption allowed for those working less than 40 hours on the PCEF projects funded by this grant.
- [Seattle Community High Road Agreement](#). Seattle Community's High Road Agreement's Hiring Standard requires that each Contractor must ensure that 100% of New Entry-Level Hires are graduates of Qualified Training Programs.
- [TECH Clean California](#). Participating Contractors are required to take [these courses](#) to complete enrollment in TECH Clean California. Training for all TECH enrolled contractors include 'TECH Clean California Overview' and the 'IRIS Incentive Processing'. For multifamily contractors, they will need an additional training titled 'TECH Multifamily Overview and Incentive Process'.
- [BayREN HPWH Contractor Program](#). To participate in BayREN's HPWH Contractor Program, Contractors must participate in one of the program-specific and equipment-specific training sessions before contractors can submit their application. Program-specific training includes:
 - Program background and overview of goals.

- What constitutes a valid project?
- How to submit an Application through the Online system.
- How to track the status of existing Applications.
- Question and Answers.
- The Program will coordinate with equipment manufacturers and/or distributors to provide technical training that could include: how to properly size the equipment and how to sell the equipment.
- [Self-Generated Incentive Program \(SGIP\)](#). Prior to payment of SGIP incentives, participating contractors must: Provide proof that the installers of the HPWH system(s) have completed a relevant state-certified apprenticeship program or have completed one or more appropriate HPWH installation trainings deemed by the HPWH PA/PI as providing satisfactory training and provided by an IOU, a HPWH manufacturer, a California community college, or another program-approved HPWH installation training.

Other Ad Hoc Standards

- [Adams Broadwell CEC RFI Response 1/20/23](#). Adams Broadwell advocated for the CEC's EBD Program to provide first priority for incentives to High Road contractors. Release funding on a rolling basis, providing High Road contractors first right for applying for a batch of available incentives and then releasing that money to other qualified contractors if High Road contractors have not used the entire batch of incentives in a specified time period.

Appendix G: Labor Standards FAQ

Below are questions that have come up from our Partners in the multi-year process of gathering information and insight to craft appropriate labor standards. Answers are provided by our Partnership's core labor representative, the [Construction Trades Workforce Initiative](#), the non-profit arm of the East Bay Building Trades Council. Additional insight was provided through two industry papers commissioned by the Partnership to address our unmet information needs.

Industry Analysis Papers

1. [Industry and Workforce Overview](#)
2. [Economic Impacts of a Wage and Benefit Standard](#)

Labor Standards FAQs

1. Do all union workers start in apprenticeship programs? What about pre-apprenticeship programs?
 - a. How fluidly can non-union trained workers currently in the industry move to a union shop and how do they do that / what level do they enter into? What is the difference between workers who organize in vs apprenticing through? What are the baseline standards for someone to organize in?
 - b. Are there certain benefits or access that is granted to apprentice unionized workers that workers who organized in cannot access?
 - c. Does 'skilled and trained' specifically refer to apprentice workers?

Answer: No, not all union workers necessarily start in an apprenticeship program - it depends on the craft and the organizer. If the laborer has prior construction experience and is being organized in, then the organizer will work with them to figure out a pathway that may include them starting with a special entry status. They may not have to start their journey as a beginner apprentice because of past experience in the field. However, for someone who has no prior construction experience and is joining a union for the first time, apprenticeship is the only pathway in.

Organizing into the trade varies by craft. The most efficient way to join the union through this method is by contacting the union organizer that will support them in assessing their credentials and provide them with a roadmap for entry. There is no difference in benefits; once you are in the union you receive all benefits associated with the union. 'Skilled and trained' specifically refers to union apprentices.

MC3 Pre-apprenticeship programs are the ideal starting point for a prospective union construction trades employee as a pathway to be exposed to the industry and the union career opportunities available. In particular, pre-apprenticeship programs outreach and

provide access to the construction trades to historically disadvantaged groups like communities of color, women, veterans, and the formerly incarcerated. However, pre-apprenticeship programs are not a substitute for apprenticeship programs and pre-apprenticeship programs alone do not provide the training and qualifications necessary to work construction jobs.

2. Are apprenticeship programs currently providing or willing to provide training specifically for residential decarb?
 - a. Are there enough decarb trainings available for union contractors? Is the content applicable?
 - b. Is there enough capacity within union training to accommodate an influx of residential contractors?

Answer: Union apprenticeship programs and certifications provide holistic training that includes the skills necessary to complete residential retrofits for single family and multi-family homes, and there is a robust offering of this decarbonization training through the unions to meet the increasing industry demand. There is more than enough capacity within union training to accommodate the growing needs of contractors in this market. For instance, different union apprenticeship training programs across various trades offer heat pump installation and maintenance, electrical wiring, HVAC, plumbing, solar PV, efficiency upgrades, charging station installation and maintenance, panel upgrades, gas dryer to electric dryer upgrades, gas stove to electric stove upgrades, etc. It is important to note that the principles of decarbonization work are the same whether they are conducted in a commercial space or residential space.

3. Are there industry appropriate certifications available for residential electrification work? Which industry certifications are tailored specifically for a residential retrofit situation for singular homes?

Answer: There are certifications available for work related to residential electrification. These vary by craft. To give one trade example, Local 104 sheet metal apprentices graduate with the following certifications:

- OSHA 30 CPWR
- CPR 1st Aid
- EPA 608 ESCO (Can't purchase refrigerant without this)
- Brazing Certification AWS
- HVAC Excellence Core ESCO
- HVAC Excellence Gas Heating ESCO
- HVAC Excellence Air Conditioning ESCO
- HVAC Excellence Heat Pump ESCO (40 hour certification training)

- TABB Technician ICB
- MATT Level 1 ICB
- MATT Level 2 ICB
- Fire Smoke Damper Technician ICB

Note: The [Certification Inventory](#) in the Appendix above provides additional detail on relevant Certifications for residential decarbonization work.

4. Can undocumented workers participate in union apprenticeship pathways - what are the actual jobs available and not available to them, and the risks of deportation they may be exposed to?

Answer: Undocumented workers can participate in union apprenticeship pathways, but federal law prevents them from working on most public projects. Contractors are required to comply with E-Verify, which is a mandate required by the federal government and not the unions. Undocumented workers can work on non-public projects and jobs. Unions would like to be able to represent more of these workers and are working on political advocacy to help organize and represent undocumented workers, but this will require policy change at a federal level.

5. What does it mean for a Contractor to "participate" in a state approved apprenticeship program? Is this financial support, a commitment to only hire from these programs, etc?

Answer: Participation for contractors means actively utilizing one of the state-approved programs listed on the DIR, which includes both union and non-union programs. This would include financial support with the contractor paying into the training program and their workforce would be actively enrolled in the program. With the union programs, the contractor pays for the apprenticeship program as part of the worker's benefit package. In the non-union programs, oftentimes the worker has to pay for their apprenticeship program. Participation in an apprenticeship program is advantageous for any participating union contractor because it gives their workers access to training and skill development. Union contractors in particular enjoy training that is accessible to the worker at the beginning of and throughout the entire duration of their career.

6. Are there non-union state approved apprenticeship programs? Do these meet the standard of "Participating in a state approved apprenticeship program that trains a skilled workforce"?

Answer: Yes, there are non-union state approved apprenticeship programs. These non-union programs are registered with the DAS/DIR and do meet the standard of participating in a state approved apprenticeship program.

7. How to Partner with union labor as a non-union contractor? Is this common and viable?

Answer: While not necessarily common, it is not entirely unusual for there to be projects that include both union labor and non-union labor. Union contractors and union labor strive to be cooperative partners in the community. Union contractors strictly employ union workers; however, there are instances where a union contractor may subcontract with a non-union contractor. Furthermore, in public work projects there is a partnership through Division of Apprenticeship Standards 140s whereby non-union contractors request an apprentice from a state-approved apprenticeship program.

8. To pay union dues, contractors need a certain volume of business, size, scale - How big do they currently need to be? How can we make it feasible for smaller contractors?

Answer: Union workers pay union dues, thus this is not a fee incurred by contractors. Trust fund payments are the payments associated with benefits and pensions paid by the contractors. These payments are part of a larger business model that is conducive to attracting and retaining quality talent across the long-term. There may be opportunities for a program administrator to help to alleviate barriers, potentially by providing a subsidy to help pay for the worker trust fund payments. For all the crafts working in residential retrofit there are examples of successful small union shops, including single-person shops.

9. Non-union contractors transitioning to union can only retain 5 existing employees - What happens to other employees? How do transitioning employees get training - participate in apprenticeship?

Answer: All existing employees will be transitioned into the union and retained once the contractor becomes a signatory. Depending on how much experience the worker has, they can bring them in at a lower classification below journeymen but higher than a 1st year or 2nd year apprentice. This will depend on the craft and what their JATC standards say. Usually, it involves a letter from the contractor to the JATC for approval. The highest you can bring someone in is essentially 65%-75% apprentice level (which means about a year to a year and a half of schooling). Everyone becomes eligible for training after that through the JATC, both journey and apprentice.

10. What does "every contracting tier" mean?

- a. Does the prevailing wage differ by contract tier? Or just saying that wages paid on contracts of all tiers should be the same prevailing wage?

Answer: Every contracting tier means that the standards apply to all contractors involved on a project - the lead contractor, any subcontractors under the lead contractor, and any subcontractors of those subcontractors, etc. A prevailing wage project dictates the wages of each respected craft working on that project. It is posted on the [DIR website](#) and updated every year. There would only be a difference if working in another city or county depending on what the prevailing wages are for that jurisdiction.

11. Could you provide a more comprehensive understanding of what's entailed in the additional costs of being signatory - what are the hard costs such as dues schedule and benefits one signs onto?

Answer: The pay and benefits scale are specified for each craft in the [local prevailing wage schedules](#) and/or the craft's master labor agreement. The dues come out of the hourly wage of the employee, there are no dues for the contractor itself.

12. How is the history of abidance with building code and labor laws proven?
 - a. Are there ways to help contractors come into compliance, to check past work that was done without permits, etc?
 - b. What is an effective approach to enforce the labor laws, without exacerbating the challenge of low permit compliance rates?

Answer: Municipalities/public agencies/partners must be willing to commit resources and capacity toward enforcing existing labor laws and potential new labor standards. This is important to ensure not only that workers are not being exploited but also so that quality control is in place. If program administrators can't enforce labor laws and standards, then workers must be empowered to enforce those provisions. These labor laws and standards are meant to protect the workers, so workers will be the most vigilant toward ensuring that these laws are abided by and that program requirements are upheld, if they are made aware of all requirements.

13. Which of these labor standards are feasible in both time and resources for a very small contractor?

Answer: With proper planning and utilization of the resources and supports identified through the H RTP partnership, all labor standards can be feasible to contractors large and small. Contractors of any size should be able to compete in this market based on quality jobs doing quality work, not simply a lowest bid model. Small & DBE contractors can work with [CTWI](#) for technical assistance to meet labor standards and become High Road, and they can

work with other partners like [Merriweather & Williams Insurance Services](#) to access financial resources like surety bond assistance services, contractor accelerated payment program services, etc.

14. What is required to make healthcare and retirement benefits portable, both in terms of conditions, structure, and likely cost implications? How to operationalize portable healthcare and portable retirement benefits outside the union context?

Answer: Healthcare is one of many fringe benefits, so in the union model it is negotiated as part of a contribution within wage schedules. It's part of a package deal received by union workers. Portability means that when workers transition into other employers they keep the same healthcare and retirement benefits. The unions have a long-standing, well tested, and efficient model of doing this. [This resource](#) from the Aspen Institute provides ideas on how to scale portable benefits for workers. To date, this best practice has not been delivered at scale in the US outside of the union model, so there remains exploration and advocacy to be done to create a viable alternative model in the US, outside of the union context.

15. How do you figure out regional living wage and benefits target levels given the high cost of living in this specific geographic region?
 - a. What is the numerical value of a "family-sustaining wage"? How does an entity arrive at that number?
 - b. How does prevailing wage in the trades which are relevant to res decarb compare to "family-sustaining wages"?

Answer: The short answer is that [prevailing wages](#) are family-sustaining wages, taking into account regional costs of living. The long answer is that the prevailing wage rate is the basic hourly rate paid on public works projects to a majority of workers engaged in a particular craft, classification or type of work within the locality and in the nearest labor market area. California's prevailing wage laws ensure that the ability to get a public works contract is not based on paying lower wage rates than a competitor. All bidders are required to use the same wage rates when bidding on a public works project. Prevailing wage laws ensure that government dollars do not undercut local wage and benefit standards, prevent a race to the bottom among publicly funded contractors, support good jobs, and provide good value to taxpayers. For tools to determine a regional living wage, see [Appendix A](#).