

# Putting California on the High Road: A Jobs and Climate Action Plan for 2030

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## Chapter 2: Demand-Side Workforce Policy Levers

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## I. Introduction

Climate policy creates both disruptions and new opportunities for businesses in California and for the workers they employ. Minimizing the disruptions and maximizing shared prosperity as new opportunities arise requires specific and intentional labor policy.

A low-carbon economy with broadly shared benefits will not happen automatically. Not all jobs that are commonly considered “green jobs” are good jobs nor are they automatically accessible to workers from disadvantaged communities. Intentionally or not, the agencies in charge of implementing climate policy—including the California Air Resources Board (CARB), the California Energy Commission (CEC), and the California Public Utilities Commission (CPUC), among others—affect the types of jobs that are created whenever they make public investments, provide incentives to encourage market development, set standards for technologies and the built environment, mandate caps on pollution, and apply other policy tools. Without deliberate efforts, the economic changes produced by climate policy may simply replicate deep-seated economy-wide trends of persistent wage inequality and disparities by race and gender. Climate policy obviously cannot solve all the challenges of inequality, but the alignment of the state’s climate and workforce action plans can contribute to solutions. The good news is that there are feasible, road-tested policy mechanisms that are complementary to and can be carried out in conjunction with climate policy. These mechanisms can be utilized to promote the generation of good jobs and pipelines into them for workers from historically excluded groups and communities.

Moreover, policies that result in better outcomes for workers can also fortify efforts to achieve the state’s climate goals. There is a relationship between job quality and work quality: better wages, benefits, working conditions, and career ladders lead to better design, installation, operation, and maintenance of technologies, which in turn lead to maximized reductions in greenhouse gas emissions. As the sector chapters show, concerns about work quality and the sluggish adoption of emission-reducing technologies appear in industries (or segments thereof) where businesses pay low wages and do not invest in a skilled workforce. In energy efficiency (Chapter 6), studies show that work quality problems have impeded the adoption of advanced technologies for deeper energy savings and that quality problems were reduced when performed by workers with skill certifications. In some sectors, such as trucking, low-road labor practices impede implementation of climate measures by imposing cost burdens on very poor workers who cannot afford them, as discussed in Chapter 7. In several sectors, such as waste (Chapter 9) and forest fire prevention (Chapter 11), lowest bid and decentralized contracting processes lead to low-road labor practices and make it very difficult to either upgrade skills or enforce environmental standards.



This chapter provides policymakers and agencies responsible for climate policy implementation with guidance on how to ensure better workforce outcomes through “demand-side” policies and practices. Demand-side policies affect the demand for labor, including what kinds of jobs are generated, what skills are needed, what wages employers pay, and who employers hire. On the other hand, “supply-side strategies,” addressed in Chapter 3, focus on the supply of labor and the strategies needed to prepare the workforce for changes in the labor market due to climate policy.

The following section presents an inventory of labor standards and other good jobs strategies that are high impact and feasible. When attached to appropriate climate measures, these workforce policies can be used as levers to improve job quality and access and ensure that workers with appropriate skills are engaged the critical work of building a carbon-neutral economy. These demand-side policies can be incorporated into climate measures through a variety of authorizing mechanisms, including legislation, executive orders, agency regulations, and agreements among private parties that can sometimes be encouraged by state government. They provide concrete ways to promote a high-road economy, in which employers pay family-supporting wages and compete based on the quality of their services and products.<sup>1</sup>

Labor standards and other demand-side workforce policies raise wages but do not necessarily raise total costs of production. As discussed in more detail at the end of the chapter, studies have found that benefits generally outweigh or at least equal costs. This favorable balance is because higher wages, better training, and safer workplaces lead to increased workforce productivity and performance. For very low-skilled activities—for example, replacing incandescent lightbulbs with more efficient ones—high-performance labor standards are less critical. With more complex technologies, proper installation and maintenance does depend on high performance, not only for professional workers, but also for blue-collar workers, as has been well documented in energy efficiency innovations such as advanced HVAC and lighting controls.<sup>2</sup>

This chapter explains the role of labor standards in general, and then identifies specific policy levers. Some of these apply only to the construction industry, which has a uniquely well-developed set of high-road standards codified in federal and state labor code. A recent study showed that about 54 percent of the expenditures of the Greenhouse Gas Reduction Fund (GGRF) flow into the construction industry, and it is also the predominant industry involved in renewable energy, energy efficiency, transportation capital projects, and other key infrastructure projects for the low-carbon economy. Combined with the fact that the construction industry has developed tried and true strategies for improving outcomes for workers while helping reach climate goals, construction is a key area of opportunity and is highlighted in the recommendations of this report.



## II. What Are Labor Standards and Related Workforce Policy Levers?

The demand-side policy levers discussed in this report can be organized into four general categories:

### ❖ Labor Standards

Labor standards include compensation standards (such as minimum wages, living wages, prevailing wages, and requirements to provide health insurance), workplace safety standards, and any other requirement intended primarily to improve conditions for workers, including such things as fair scheduling rules, sick leave, union neutrality, and whistleblower protections. The establishment and enforcement of strict labor standards and worker protections comprises one type of workforce policy lever.

### ❖ Skill Standards

A second type of labor policy lever focuses on worker qualifications and is intended primarily to ensure high-quality work products. Specific policy levers to this end include skill standards such as requirements for licensing, skills certifications, educational credentials, and similar requirements for employees.

### ❖ Access and Inclusion Policies

Another type of workforce policy lever is concerned with inclusion, diversity, and local community benefits. Here, specific policies include requirements to increase hiring from historically disadvantaged communities and/or local community members.

### ❖ Comprehensive Strategies

Individual policy levers are often combined into a comprehensive “umbrella” policy lever. Community workforce agreements (CWAs) and community benefits agreements (CBAs), for example, can include wage and skill standards as well as local or targeted hire goals. Responsible contractor requirements often embed labor and skill requirements along with other minimum insurance and performance standards.

There can be a great deal of overlap and interaction among various policy levers. For instance, skill certification requirements promote high-quality work as well as higher wages.<sup>3</sup> Similarly, wage floors lower worker turnover and improve work quality and productivity.<sup>4</sup>



Labor standards change the competitive environment for businesses, favoring high-road employers that compete on quality rather than price alone. High-performing contractors hire skilled workers and compensate them for their skills and investment in training. Likewise, higher wages attract more highly skilled workers. Standards help screen out unqualified contractors, thus improving the quality of work in a given sector.

Collectively, labor standards and workforce policy levers are designed to maintain or improve job quality, job performance, and job access, thereby avoiding the growth of poverty-wage jobs and supporting the development of a skilled workforce able to secure a middle-class livelihood.

In so doing, these policies support high-road employers who compete on quality; focus on innovation, productivity, and value added; use well-paid workers as a force for greater production; and focus on the long-term prospects of the firm. These policies can and should be harnessed in service to California's visionary climate agenda.

Various mechanisms can be used to attach labor standards to climate measures. They can be mandated in legislation, in regulation, as a condition of participation in incentive programs, in competitive solicitations and procurement policies, and through a variety of other authorizing vehicles.

Labor standards can be economy-wide, such as minimum wages, or specific to an industry or set of employers, such as prevailing wages for the construction industry or living wages for government contractors.

### A. Wage and Benefit Standards

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#### 1. Prevailing Wages (Construction Sector)

California's prevailing wage laws, like the federal government's Davis-Bacon Act, require that on public works projects, contractors and subcontractors must pay their workers not less than the wage rates and health and pension benefits "prevailing" in the local areas, based on the classification or type of work performed by each worker. While the federal law applies to federally funded or assisted projects with a value of more than \$2,000, the California version applies to state, municipal, or local projects with a value of more than \$1,000.<sup>5</sup> Wage rates and the corresponding health and pension benefits, as well as the requisite contributions to the state-certified apprenticeship programs, are determined by the California Department of Industrial Relations.<sup>6</sup> Under California law, minimum labor standard requirements apply to apprentices in state-certified apprenticeship programs; apprentice wage rates rise as workers progress in their program.



The purpose of prevailing wage laws is to ensure that public investments do not undermine local wages and do not provide an incentive for employers to recruit lower-wage workers from outside the area. Prevailing wage laws also create a level playing field in the bidding process for contractors that pay union-scale wages and benefits.

### *Examples in Low-Carbon Sectors*

High-speed rail; public transit construction projects financed by the Greenhouse Gas Reduction Fund; and Prop. 39 of 2012, which provides state funding (\$431.4 million in 2017-18) to support energy efficiency projects in schools.

### *Authorizing Vehicles*

Prevailing wage exists in state law and covers construction projects that are paid for in full or in part out of public funds. The prevailing wage requirement has recently been extended to cover certain private projects for which developers seek streamlined environmental review (see, e.g., Senate Bill 35 [Wiener, Chapter 366, Statutes of 2017]<sup>7</sup>). Prevailing wage requirements have also been mandated in power purchase agreements between both investor-owned and public utilities and power plant developers.<sup>8</sup>

## **2. Wage Floors for Occupations Not Covered by Prevailing Wage**

A variety of wage standards exist in industries not covered by prevailing wage laws. Minimum wage standards are the most common; they place a wage floor that affects all jobs within a specific jurisdiction. Living wage ordinances, which have become common among local governments in recent decades, place a wage floor on contractors or companies doing business with or receiving subsidies or other benefits from the local government. While these measures use varying definitions of what constitutes a “living wage,” they typically calculate the income needed to support a family according to local costs, plus benefits. As of the writing of this report, living wage ordinances have been adopted by a total of 38 cities, counties, and other jurisdictions in California.<sup>9</sup> Living wage laws have also been instituted for specific sectors. San Francisco and New York City have expanded wage standards beyond construction to cover a wide range of occupations including janitors, theatrical workers, workers in parking garages, solid waste haulers, moving services, trade show workers, and broadcast services.<sup>10</sup>

The state has the authority to set wage floors in programs they operate. Where there is no prevailing wage determination, the state could ask the Department of Industrial Relations (DIR) to make one, as the Obama administration did in determining a prevailing wage for weatherization during the American Recovery and Reinvestment Act (ARRA). Alternatively, programs could mandate a wage floor. Estimates from the 2014 Guidance Plan show that for the low-income weatherization programs administered



by the investor-owned utilities (IOUs), implementing a wage floor of \$15.00 per hour would increase total installation costs by about 2 percent, and a wage floor of \$16 would increase costs by less than 3 percent.<sup>11</sup>

### *Examples in Low-Carbon Sectors*

The Utility Pre-Craft Trainee (UPCT) program, an innovative low-income weatherization program operated by the Los Angeles Department of Water and Power (LADWP), created a wage floor for its workers.<sup>12</sup> Started in 2011, the UPCT program trainees received a starting wage of \$16 per hour plus health and retirement benefits, as well as opportunities to move into careers in the skilled trades with the utility. See **Promising Practice #6.3: LADWP Utility Pre-Craft Training Program** in Chapter 6 for more details.

### *Authorizing Vehicles*

Wage mandates and other compensation standards can be enacted in state law, regulation, public investment and procurement policies, and incentives programs as a condition of participation.

## **B. Skill Standards**

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Skill certifications, educational credentials, licenses, and other skill standards for specific occupations or tasks comprise a second type of labor standard. Many industries require skill certifications to obtain a license in order to legally practice an occupation, from highly educated professionals like architects and engineers, to technical occupations requiring more limited postsecondary education, such as dental assistants and transit drivers. Because they are mandates, such licenses and state-required certifications are the most powerful form of skill certification.

In California's construction industry, most skilled trades do not require that workers have a certification to practice their craft, with the exception of electricians, who must have a state electrical certification. Even when not legally required, employers may require specific skill certifications for some construction jobs as a prerequisite for hiring or performing specific tasks. Such "industry-recognized" skill certifications demonstrate a worker's competence and value to their employer and usually command higher wages. When skill certifications are required or expected as a prerequisite for certain occupations or major tasks, it provides a signal to the training and education community about what skills are needed and valued in the labor market. As long as there are strong pipelines to facilitate inclusion of disadvantaged workers, these certifications serve to ensure quality workmanship, help ensure job quality, and provide steps in a career ladder. In addition to signifying competence in the tasks needed for performance, skill standards include proficiency in both consumer and occupational safety protocols.





It is critical to distinguish between a business or employer license, and a workforce skill certification. In construction, for example, a contractor license is intended to signify a contractor's management, administration, and construction competence in a particular construction activity, but in most cases places few or no skill requirements on the workers performing this work for the contractor. A combination of contractor licenses and worker qualifications can help ensure the safety and quality of work performed, which benefits workers and consumers. Such a combination of skill standards for employers and workers is advisable, particularly, but not exclusively, for work involving new low-carbon technologies or products in order to promote acceptance and facilitate widespread adoption.

### **1. Requirements for a Skilled and Trained Workforce (Construction Sector)**

In the construction industry, a journey card from a state-certified apprenticeship program qualifies as the most recognized and most robust skill certification for a particular skilled trade occupation. Apprenticeships are industry-funded, “earn-as-you-learn” programs that combine classroom instruction and paid on-the-job training over three to five years. Wages are increased in accordance with skills acquisition, and apprentices receive an industry-recognized credential when they complete the program.<sup>13</sup> See Chapter 3 for a more detailed description of apprenticeship.

#### ***a. Requirements Under Public Works Labor Code***

State law recognizes the importance of requiring the use of apprentices and graduates of apprenticeship as a means to ensure that a qualified workforce is employed on public works projects. Under the decades-old state public works labor code, contractors and subcontractors on all public works contracts valued at \$30,000 or more must utilize a specified ratio of apprentices from state-certified apprenticeship programs to journey-level workers, usually requiring one apprentice for every five journey workers.<sup>14</sup>

#### ***b. Requirements Under Skilled and Trained Workforce Standard***

California has recently expanded apprenticeship requirements for a subset of public works projects<sup>15</sup> as well as for some private-sector construction through the “skilled and trained workforce” requirement. For construction projects where it applies, a percentage of all workers in apprenticeable occupations must be either skilled journeypersons or apprentices with a registered program. The law requires that, for some trades (e.g., electricians, iron workers), 60 percent of the workers must be skilled journeypersons by 2020; for other trades (e.g., operating engineers, cement masons, carpenters, pile drivers), the requirement is 30 percent. This standard is stronger than that used in



state public works law because it specifies: 1) that *all* workers in apprenticeable trades must meet certain standards; and 2) there must be an overall minimum percentage of journey-level workers on covered projects who have completed state-approved, registered apprenticeship programs, compared to the public works law that mandates a ratio of journey workers to apprentices. The skilled and trained standard was established by Senate Bill 54 (Hancock, Chapter 795, Statutes of 2013),<sup>16</sup> and applies to the workforce contracted by owners of petroleum refining and hydrocarbon manufacturing facilities to perform construction, repair, maintenance, and demolition work. The skilled and trained standard is used to help ensure quality work and protect against accidents. It has also been incorporated in recent affordable housing bills, including SB 35 (Wiener, Chapter 366, Statutes of 2017) and Assembly Bill 73 (Chiu, Chapter 371, Statutes of 2017),<sup>17</sup> both of which create streamlined approval processes for some housing developments. The “skilled and trained workforce” law is complicated and has been amended or “cleaned up” several times since passage of SB 54; for more information, including definitions of “skilled journeypersons” and an implementation timeline, see the United Contractors’ “Revised: Skilled and Trained Workforce Guide.”<sup>18</sup>

### *Examples in Low-Carbon Sectors*

Under state prevailing wage law, all publicly funded clean energy projects—including Prop. 39 projects for clean energy upgrades and generation at public educational facilities,<sup>19</sup> high-speed rail construction, and other public works construction financed by the GGFR—must use the apprenticeship standard required in all public works construction above the \$30,000 threshold. The stronger requirement for a trained and skilled workforce has not yet been incorporated into specific climate policies or funding streams. However, IOU-administered energy efficiency programs for commercial HVAC now require enrollment in or completion of a California or federal certified apprenticeship program (or proof of equivalent competency).<sup>20</sup>

### *Authorizing Vehicles*

Either the public works labor code standard or the skilled and trained standard could be inserted in regulations, procurement policy, incentive programs, and mandates on regulated entities such as the Renewables Portfolio Standard (RPS).

## **2. Requirements for Specialized Certifications (Construction Sector)**

Specialized certifications have been developed for specific clean technologies, particularly emerging technologies that require skill upgrades. These certifications are most effective when they augment a broad occupational credential rather than serving as stand-alone programs for specific “green skills.” A model program is the California Advanced Lighting Controls Training Program (CALCTP), a skills-upgrade certificate for



licensed electricians. This third-party certification was developed as a collaboration of the UC Davis Lighting Center, the Lawrence Berkeley National Laboratory, the IOUs, the National Electrical Contractors Association (NECA), and the International Brotherhood of Electrical Workers (IBEW). These subject-matter experts and industry stakeholders developed the program to overcome skill gaps that were creating a major barrier to the successful adoption of technologies that have great promise to lower energy use from lighting. Similar programs have now been developed for electric vehicle (EV) charging infrastructure, battery storage, and micro-grid installation.<sup>21</sup> See Chapter 3 on supply-side demands for more details.

### *Examples in Low-Carbon Sectors*

Specialized skill certifications are required in a number of California low-carbon sectors, although to a much lesser extent than in Europe. The Title 24 Green Building Code now requires specific skill standards for “acceptance testing,” i.e., the specialized testing of building system technologies including advanced lighting controls. The Electric Vehicle Infrastructure Training Program (EVITP) certification is required for the installation of all IOU-owned charging stations; this requirement does not yet apply to state funding for EV supply equipment deployment. The CPUC recently issued a decision to require CALCTP and other specialized certifications for advanced lighting and HVAC incentive programs.<sup>22</sup>

### *Authorizing Vehicles*

Existing vehicles for specialized skill certifications are regulatory. These requirements could also be inserted in legislation, procurement policy, incentive programs, and mandates on regulated entities such as eligibility requirements for inclusion in the RPS.

## **3. Skill Standards Requirements in Non-Construction Sectors**

California imposes licenses and skill certifications on a wide variety of occupations for reasons of quality, safety, and accountability.<sup>23</sup> State-regulated certification is common for many professional occupations, such as engineers (structural, civil, fire, chemical, control systems, traffic, etc.), architects, land surveyors, geologists, geophysicists,<sup>24</sup> physicians,<sup>25</sup> nurses,<sup>26</sup> pharmacists,<sup>27</sup> and attorneys.<sup>28</sup> In low-carbon sectors, apart from construction trades, transit operators and bus mechanics are examples of non-professional occupations that require a license or specific skill certification.

### *Examples in Low-Carbon Sectors*

Transit operators are required to undergo training and obtain appropriate driving licenses. Certifications from state-approved apprenticeship are also expanding. BYD, the electric bus manufacturing company under contract with the Los Angeles County Metropolitan



Transportation Authority (LA Metro), has developed a certified joint apprenticeship program for their workforce. A number of transit agencies in California have or are developing apprenticeship programs for transit operators and bus mechanics.<sup>29</sup> Each program will follow the Division of Apprenticeship Standards regulations, which issue a journey card at completion of training that serves as an occupational certification for workers.

### *Authorizing Vehicles*

Skill certifications can be required in legislation, regulation, by public agencies, in contract bidding, and in requirements for participation in incentive and subsidy programs.

## **C. Responsible Employer Standards**

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Another type of workforce policy lever involves placing pre-qualification requirements on businesses that seek government contracts or that benefit from public subsidy programs. This approach can be used to incorporate wage and skill standards, as well as to promote other high-road employment practices.

### **1. Responsible Contractor Standards (Construction Sector)**

Contracts in some public works projects go beyond the legally mandated prevailing wage and apprenticeship utilization standards to include stronger language with the goal of ensuring quality and performance as well as good working conditions.

So-called “responsible contractor standards” generally require that firms meet pre-established, clearly defined minimum standards relating to contractor responsibility, including: all applicable licenses, bonding, and insurance (including workers’ compensation); wage and labor law compliance; no OSHA violations; and permitting that includes passing code inspections. They often include evidence of past performance, and may include the types of wage and skill standards discussed above. As with skills certifications, these standards help ensure high performance and promote good jobs. As with any minimum performance criteria, it is critical to take intentional steps to ensure equal access for historically marginalized groups, including in this case minority and women-owned small businesses.



### *Examples in Low-Carbon Sectors*

Senate Bill 350 (de León, Chapter 547, Statutes of 2015)<sup>30</sup> requires the California Energy Commission to adopt a responsible contractor policy to ensure that building energy efficiency retrofits meet high-quality performance standards and reduce energy savings lost or forgone due to poor-quality workmanship.<sup>31</sup> As of the writing of this report, this policy had not yet been implemented.

### *Authorizing Vehicles*

Responsible employer standards are most common in public works contracting but can also be incorporated into legislation (as in SB 350), regulation, incentive program requirements, and mandates on regulated entities.

## **2. Responsible Employer Requirements in Non-Construction Industries**

Responsible employer standards can be used to place pre-qualification requirements on firms that do business with, or receive economic benefits from, the government in non-construction industries. These standards, which could be specified in contracts with public agencies or eligibility criteria for participation in incentive and grant programs, mandate more than compliance with basic minimum wage and employment laws and include requirements or terms and conditions, with the aim of ensuring that public dollars support quality performance and good jobs. The requirements often include having no violations of employment regulations, evidence of past experience, and sometimes safety training or specialized skill standards.

### *Examples in Low-Carbon Sectors*

The South Coast Air Quality Management District (SCAQMD) added new rules regarding labor law compliance to its district-funded truck replacement projects. The SCAQMD assesses a company's record of labor law violations when reviewing applications for clean truck incentives, and has a disclosure and certification process regarding ongoing labor law compliance for those awarded funding. SCAQMD also prohibits lease-to-own arrangements in contracts involving district-funded trucks.<sup>32</sup>

### *Authorizing Vehicles*

Responsible employer standards can be incorporated into legislation, regulation, incentive program requirements, and mandates on regulated entities.



## D. Project Labor Agreements and Community Workforce Agreements

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### 1. Project Labor Agreements (Construction Sector)

Common in large, complex construction projects, a Project Labor Agreement (PLA) is a pre-hire collective bargaining agreement with one or more labor unions setting the terms and protocols of project execution and worksite conditions and prohibiting work stoppages due to labor disputes. Each PLA is negotiated to meet the needs of a specific project owner/manager. By governing nearly all aspects of the project, PLAs maximize stability in terms of construction timelines and budget, and guarantee positive outcomes and they resolve labor disputes without recourse to strikes or lockouts. By requiring the use of state-certified apprenticeship programs, PLAs benefit both contractors and communities by engaging a workforce that is undergoing or has undergone rigorous training and that is paid family-sustaining wages. Compensation standards generally include prevailing wages and contributions to health, retirement, and training trust funds managed by a joint labor-management committee. PLAs have long been used for public works projects funded by the federal government and state, county, and municipal agencies. In California, they are also sometimes used by developers on large private projects.

#### *Examples in Low-Carbon Sectors*

Many of California's large public transit projects with state or local government funding have used PLAs, including LA Metro's Measure R projects.<sup>33</sup> PLAs have become the industry norm and are used on almost all utility-scale renewable energy construction projects, even though they are not required by state law (see Chapter 6).

#### *Authorizing Vehicles*

PLAs are not mandated in state law, but state law authorizes public agencies to use PLAs (see Public Contract Code 2500) and prohibits charter cities from adopting measures to ban PLAs on state-funded construction projects.<sup>34</sup> PLAs have recently been used on construction of state buildings. PLAs can be mandated by awarding agencies for construction projects.



## 2. Community Workforce Agreements (Construction Sector)

Community Workforce Agreements (CWAs) consist of a Project Labor Agreement that includes language to broaden access to good jobs in construction. These “targeted” or “local” hire provisions typically include requirements to hire a certain minimum percentage of workers from zip codes that are near the project (known as “local hire”) and/or from economically disadvantaged communities. Many CWAs also set hiring goals for underrepresented populations, veterans, and/or women, often by giving preference to graduates of pre-apprenticeship programs that target historically excluded groups. In California, because of Prop. 209, explicit targeting to improve hiring of workers from underrepresented racial/ethnic groups is prohibited, but local and targeted hiring policies and practices have proven effective at improving access and inclusion in many instances.

CWAs are most successful when there are strong pre-apprenticeship programs that work closely with the building trades unions, because these programs can ensure that there is a pool of qualified local or targeted entry-level workers who can be hired on the project. It is costly to build a pipeline of qualified entry-level workers from underrepresented groups, so CWAs are most practical on large-scale projects or an aggregation of smaller projects governed by the same CWA. The strength of this policy is that it increases the number of good jobs while ensuring inclusion of historically marginalized workers.

### *Examples in Low-Carbon Sectors*

The California High-Speed Rail Authority’s Community Benefits Agreement,<sup>35</sup> which was finalized in 2013 stipulates that 30 percent of the hours will be performed by “National Targeted Workers,” which is defined in the agreement as those who reside in zip codes that include a census tract or portion thereof in which the median annual household income is less than \$40,000 per year.<sup>36</sup> The Transformative Climate Communities (TCC) program funds projects that develop and implement neighborhood-level plans for greenhouse gas emission reductions and provide local economic, environmental, and health benefits to disadvantaged communities; it encourages CWAs for these construction projects.<sup>37</sup> Some PLAs on utility-scale solar projects include local hire agreements, thereby turning them into CWAs and ensuring that the benefits of PLAs include job access for local and/or disadvantaged workers.

### *Authorizing Vehicles*

Like PLAs, CWAs are not mandated in state law. For construction projects, CWAs are negotiated by many public awarding agencies, such as counties, cities, school districts, and ports.



## E. Inclusive Procurement Policies for Purchases of Large Capital Equipment, Contracts for Public Services, and Grants

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Public procurement by state, county, and municipal government entities enables a variety of measures that encourage businesses that contract with public entities to comply with high labor standards or provide other public benefits. Federal law preempts states from requiring bidders to negotiate Community Workforce Agreements (CWAs) or Community Benefits Agreements (CBAs) like those in the construction industry, but state procurement policies can include requirements for a floor on wages, skill standards, and more, and procurement can provide incentives for bidders to enter into a CBA. An agreement between community stakeholders and a business bidding for a public contract, a CBA provides a variety of local employment and community benefits in exchange for community support for the project. Many CBAs are negotiated with a developer by broad-based local coalitions that include community, environmental, and religious organizations as well as labor unions. Though legally binding, CBAs are not traditional collective bargaining agreements.

Procurement processes can determine wage and benefits standards in several ways. In some cases, service contractors are required to pay a living wage, as determined by local living wage ordinances. In other cases, particularly for services that are also carried out by public-sector workers, wage parity between public and private workers is required in order to discourage contracting out for the sole purpose of reducing wages and benefits.<sup>38</sup>

One practical way to use procurement to ensure job quality is to seek the “best-in-class” employer, rather than predetermine labor standards. This approach is used by the U.S. Employment Plan (USEP), an initiative created by Jobs to Move America, a national organization advocating responsible use of public transit procurement. The USEP provides model language for procurement in competitive solicitations that gives bidders an opportunity to disclose detailed information about the location and number of new jobs that would be created or sustained as well as the number of disadvantaged and under-represented workers to be hired. The U.S. Employment Plan was designed to level the playing field for high-road manufacturers that supply buses, rail cars, and other large capital equipment to public transit agencies, and has been adopted by some of the nation’s largest urban transit authorities. The USEP has three components that agencies can incorporate into their procurement language:





- Proposal Guidelines that include pre-approved forms that capture the number and quality of U.S. jobs to which a proposer is committing on the contract, including details regarding expected wages, employer-provided benefits, and workforce training investments; plans to generate employment opportunities for disadvantaged and underrepresented workers through partnerships with community-based organizations; and plans to invest in domestic production facilities or sites;
- Evaluation Guidelines with scoring criteria to evaluate competing proposals and reward companies that demonstrate a commitment to creating good U.S. jobs, hiring disadvantaged and underrepresented workers, advancing workforce development, and investing in U.S. facilities; and
- Enforcement Language to be included in an awarded contract that legally obligates companies to meet the hiring, job quality, equity, and workforce investment commitments made in their winning proposals.

### *Example in Low-Carbon Sector*

Various public agencies in California, including the High Speed Rail Authority and Los Angeles County Metropolitan Transportation Authority (LA Metro), have adopted and used the U.S. Employment Plan (USEP) in procurement of commuter rail cars and transit buses. In fact, LA Metro now has a Permanent U.S. Employment Plan policy, requiring the USEP in all future procurements of new manufactured vehicles and equipment above \$100 million. Likewise, the City of Los Angeles' Department of Transportation (LADOT) has committed to the USEP in procurements to meet the agency's planned transition to a fully zero-emission transit bus fleet. Accordingly, companies bidding on future LA Metro and LADOT contracts can now voluntarily commit to job quality, job access, and workforce investment targets to improve the competitiveness of their proposals. See **Promising Practice #7.1: Heavy-Duty Transit Vehicle Manufacturing—Procurement for the Public Good** in Chapter 7, Sustainable Transportation, for more information about LA Metro's 2016 procurement of zero-emission battery-electric buses that included the USEP.

Like CWAs, the strength of these policies is that they increase the number of good jobs while ensuring inclusion from historically marginalized workers.

### *Authorizing Vehicles*

Community-benefiting procurement policies can be implemented through contract bidding language that requires them, or by adding points in the ranking of projects in a competitive solicitation.



## F. Inclusive Hiring (All Sectors)

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Inclusive hiring, sometimes called “first-source hiring,” “targeted hiring” or “local hiring,” focuses on improving job access for workers from disadvantaged groups or communities. Under an inclusive hiring system, community organizations or training programs serving disadvantaged workers refer local job applicants to employers; in turn, the employers agree to notify the referring organizations when there are job openings and to look at its referrals first in their review of job applicants.<sup>39</sup> To have impact, inclusive hiring should only target higher-wage jobs or jobs with structured career ladders, or be incorporated into CWAs or CBAs as part of the local or targeted hire agreements. If they are stand-alone programs that do not include a job-quality strategy, they serve only to funnel disadvantaged workers into low-wage jobs and to replicate existing inequality in the labor market.

### *Example in Low-Carbon Sector*

The ratepayer-funded California Solar Initiative’s Multifamily Affordable Solar Housing (MASH) program requires that contractors provide temporary employment for graduates of training programs.<sup>40</sup> For each MASH project, contractors must provide at least one student or graduate of a job training program with at least one full paid day (eight-hour day) of work for each 10kW of system size up to 50kW. These job requirements are now being adopted in the CPUC rulemaking for the implementation of Assembly Bill 693 (Eggman, Chapter 582, Statutes of 2015).<sup>41</sup>

### *Authorizing Vehicles*

Local or targeted hire requirements can be mandated in public procurement contract bidding, in program requirements for incentive programs, and in other programs where employers are receiving public or ratepayer funds. They are most effective when they are linked to the expansion of good jobs, as in CWAs and CBAs.

## G. Retention of Work in Public-Sector or Regulated Entities (All Sectors)

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Across a variety of industries, contracting out by the public sector or large private firms has been shown to lead to significant declines in job quality. While wage standards such as living wage ordinances can limit declines in job quality in the context of outsourcing, from a good-jobs perspective it is preferable to retain work in public enterprises or regulated firms like the IOUs. Since these entities are often unionized and/or already have internal wage floors, avoiding outsourcing can help ensure job quality. With more accountability than unregulated firms, they are also more likely to have job access strategies in place or be open to them.



### *Example in Low-Carbon Sector*

The LADWP made a decision to insource weatherization jobs that had previously been contracted out. As described in Chapter 6, they then created a pre-craft job classification in the utility and a training program for weatherization that functions as a pre-apprenticeship program serving as a pipeline into career utility employment in a skilled trade. This approach has transformed weatherization from a low-wage, dead-end job to a job with a living wage floor (\$16 per hour and full benefits when the program started in 2011) and a career ladder.<sup>42</sup> See **Promising Practice 6.3: LADWP Utility Pre-Craft Training Program** in Chapter 6.

### *Authorizing Vehicles*

Public or regulated entities can authorize retention of public employment or insourcing of previously outsourced activities.

## **H. Enforcement of All Labor and Employment Law, Including Proper Classification of Employees vs. Independent Contractors**

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A company's incorrect designation of its employees as "independent contractors" strips workers of essential wage and other workplace rights under state and federal labor and employment law and generally lowers their net wages and benefits. It also drains tax revenues, and disadvantages employers that do comply with the rules, correctly classify workers, and pay for payroll taxes, workers' compensation insurance, and other employee protections. Many companies in transportation, janitorial, logistics, home care and domestic work, construction, tech, and other sectors have put workers outside of workplace protections by claiming that they are independent contractors instead of employees. Under the law, however, these arrangements are permissible only when the worker is running a separate business.<sup>43</sup> The misclassification problem greatly affects some occupations that are directly impacted by climate policy, including truck drivers, as described in Chapter 7. Climate policies can include requirements to help ensure workers are not misclassified.

### *Examples in Low-Carbon Sectors*

The South Coast Air Quality Management District (SCAQMD, or the district), the air pollution control agency for all of Orange County and parts of Los Angeles and Riverside Counties, added new rules regarding labor law compliance to its district-funded truck replacement projects. The district assesses a company's record of labor law violations when reviewing applications for clean truck incentives, and has a disclosure and



certification process regarding ongoing labor law compliance for those awarded funding. SCAQMD also prohibits lease-to-own arrangements in contracts involving district-funded trucks.<sup>44</sup>

### *Authorizing Vehicles*

Just as with wage standards and responsible contractor policies, businesses contracting with public agencies or receiving public funds could be required to verify compliance with proper employee classification laws.

## III. Costs and Benefits of Labor Standards

The workforce policy levers described above generally lead to higher wages and better benefits. A legitimate question is whether higher-quality jobs will increase the costs of climate measures, and if so, by how much. Simple economic theory would suggest that wage standards would negatively impact consumers through higher prices, and workers through fewer jobs. However, a substantial body of research shows that the benefits of labor standards implemented in a variety of industries in the United States outweigh the costs. Studies on the actual impacts of increases in minimum and living wages have found price and employment effects to be negligible, while worker incomes have been substantially improved.<sup>45</sup> In construction, numerous studies have shown that prevailing wages, project labor agreements, and other mandates for high-road labor standards have not raised costs where they have been implemented, as productivity improvements make up for higher wages and benefits.<sup>46</sup> For example, a 2017 research study by the UC Berkeley Labor Center analyzed 88 community college projects that were built with PLAs and 175 that were built without PLAs. This study found evidence suggesting that PLAs did not reduce the number of bidders or raise costs; on the contrary, the projects built under PLAs had slightly more bidders compared to non-PLA projects, and their low bids came in slightly lower than those of non-PLA projects.<sup>47</sup> Research has shown similar results in other industries: better wages and working conditions attract more highly skilled workers and lead to decreased turnover, which in turn improves productivity and performance of the workforce, thereby offsetting a portion of the higher compensation.<sup>48</sup>

Moreover, cost increases due to higher compensation may lead to negligible or very small overall cost increases, since labor costs are often a small percentage of production costs. For example, an analysis of the impact of raising wages for weatherization workers estimated that a 20 percent rise in wages (from an average of \$12.50 per hour to a floor of \$15.00) would increase the cost of home weatherization by 2 percent.<sup>49</sup> Another consideration is the high public cost of low-wage work; a recent study estimates that low wages cost U.S. taxpayers \$153 billion each year in safety net programs for working families whose low income makes them eligible for public assistance.<sup>50</sup>



Research has also provided evidence that requirements for skill certifications improve the quality of installation, maintenance, and operation of green technologies. For example, a North Carolina State University (NCSU) study demonstrates the link between skill standards and successful outcomes in implementing new green infrastructure (GI). The NCSU analysis found that prior to the launch of a GI worker certification program, roughly 95 percent of the 425 GI projects implemented in Cary, North Carolina, failed inspections because they were not properly maintained.<sup>51</sup> However, “after owners better appreciated the value of maintenance and hired workers certified by NCSU, roughly 95 percent of BMPs *passed* a second inspection.”

In the HVAC sector, a study of the NATE (North American Technician Excellence) certification found that systems installed by certified technicians achieve 10 percent better field-adjusted energy efficiency compared to uncertified technicians.<sup>52</sup> Another study showed that projects performed by a NATE-certified HVAC contractor generate 12.9 percent fewer callbacks than projects performed by an uncertified contractor and cost 6.8 percent less than projects performed by an uncertified contractor due to billing efficiency.<sup>53</sup> A study on contractor and technician behavior prepared by Energy Market Innovations, Inc., (EMI) showed worker certification helps ensure high-quality maintenance work. This study included a covert field study of 13 technicians performing maintenance duties and found that certified technicians performed more maintenance and service tasks than uncertified technicians and executed them correctly more often.<sup>54</sup>

In lighting, evidence from six pilot studies indicates customer cost savings in the range of 10 to 30 percent for the installation of advanced lighting controls by CALCTP-certified contractors, who are required to employ CALCTP-certified electricians, versus non-certified contractors.<sup>55</sup> Lower costs are attributed to CALCTP training, which enables more accurate bids, faster installation, and higher initial system performance as a result of greater familiarity and expertise with advanced lighting controls.<sup>56</sup> Southern California Edison recognized the value of CALCTP in its Program Implementation Plans filed in July 2012, stating that “because CALCTP training translates into high-performance operation and maintenance, operational data on CALCTP-installed systems to date indicate an extremely low rate of installation difficulties, callbacks, changes, etc.”<sup>57</sup>

Finally, there are serious downsides to the strategy of not requiring skill standards, which, inadvertent or not, is an explicit choice about the level of standards that should be provided. Research has shown evidence of poor work quality limiting the benefits of complex, emerging low-carbon technologies and slowing market adoption of new technologies where strong quality assurance mechanisms, including workforce standards, are not in place.



## IV. Recommendations for Demand-Side Workforce Policy Levers

### 1. Expand the use of community workforce agreements (CWAs) on climate investments involving large-scale construction projects.

CWAs are agreements between construction employers and one or more unions that set wages and benefits, specify the use of apprentices, and include hiring language to promote the inclusion of workers from historically disadvantaged groups.

CWAs have a proven track record of ensuring job quality and job access in construction, a critical industry for many sectors in the Scoping Plan.

Agencies or entities administering public or ratepayer funds for low-carbon infrastructure can use CWAs on large projects for infrastructure investment in renewable energy, energy efficiency retrofits, EV charging infrastructure and transit infrastructure projects, installation of emission controls in refineries, leakage abatement in oil and gas distribution, and waste and water infrastructure. The typical minimum threshold for stand-alone CWAs is \$1 million in contract value, because sufficient scale is necessary to create enough jobs to successfully implement targeted or local hire requirements.

In climate policy, CWAs are currently used in utility-scale renewables construction, light rail, and high-speed rail construction, and other large-scale construction projects.

### 2. Use inclusive procurement policies for public procurement of large capital equipment, contracts for public services, and in grant programs.

Inclusive procurement policies by state, county, and municipal government entities require businesses that contract with public entities to comply with high labor standards, such as family-supporting wages, skill standards, investments in training, and inclusive hiring.

Agencies or entities administering climate investment funds can use inclusive procurement policies to incorporate anticipated workforce outcomes in the criteria they use to rank bidders in competitive solicitations. Awarding agencies can insert this language in solicitations for the procurement of large capital equipment like buses, for contracts for public services like waste collection and fire prevention, and in grant programs.



LA Metro has successfully used inclusive procurement language to ensure family-supporting jobs, substantial investments in training, and commitments to hiring veterans, women, and formerly incarcerated workers in a manufacturing facility that is providing zero-emission buses to the agency.

### **3. Include responsible employer standards in all climate-related incentive programs.**

Responsible employer standards for publicly-funded incentive programs, including rebates, loan assistance, and other financial support, are a powerful tool to ensure adequate work quality and to avoid using public funds to support poverty-level jobs or the underground economy. Because incentive programs only partially subsidize private investments, the comprehensive strategies described in the first two recommendations above are not generally feasible. Responsible employer standards can include skill standards and living wage standards addressed in the next two recommendations.<sup>58</sup>

#### **3a. Use skill standards in incentive programs to ensure safe and proper performance in the installation, operation, and/or maintenance of low-carbon measures.**

For emerging technologies, incumbent worker upgrade certifications can be incorporated into program requirements for rebates, incentives, loan assistance, and more. For commercial and industrial construction, agencies can employ the “skilled and trained workforce” standard currently required in some public works and in refinery upgrade work, which utilizes enrollees and graduates of state-certified apprenticeship programs.

For advanced technologies, use specialized skill certifications like CALCTP. These skill certifications are critical because persistent quality problems have emerged in the installation, operation, and maintenance of some key technologies that are critical to lowering emissions, including HVAC and advanced lighting controls in energy retrofits. Safety concerns are also paramount in EV charging stations and battery storage.

Agencies administering programs can consult with subject matter experts, the CWDB, community colleges, the Division of Apprenticeship Standards, and high-road employers to help identify the most appropriate advanced certifications.



### **3b. Use living wage standards and verification of compliance with all employment and labor law, including health and safety standards, in incentive program requirements.**

For industries characterized by low wages, health and safety violations, and other indicators of low-road conditions, living wage standards and verification of compliance with the full range of California labor, employment, and environmental regulations can be incorporated into program requirements for rebates, incentives, loan assistance, and other assistance.

Without such requirements, incentives in these industries could end up supporting employers with low-road labor and workforce practices.

Sectors in which labor and employment violations are common include residential construction, trucking, forest and wildlands management, agriculture, some manufacturing, and subcontracted waste and water services. Agencies implementing climate measures in these sectors can use responsible employer policies to ensure that public funds do not support poverty-level jobs or violations of state labor and employment law.

## **4. Identify and focus incentives on win-win strategies that meet both climate and workforce goals.**

Funding programs can be designed and phased strategically to support high-road rather than low-road employers.

### **4a. Identify program models that increase the scale of projects.**

Agencies implementing climate measures may be able to design programs to increase project scale, even within the same general market segment, e.g., multifamily residential vs. single-family homes. In construction, increased project size can facilitate the incorporation of local and targeted hire. Often, larger projects can capture economies of scale and thus also increase the emission reduction per dollar invested.

For example, for the residential sector, where solar energy costs are generally the highest and subsidies have disproportionately benefited more-affluent homeowners, incentives can be concentrated on larger-scale community solar projects that focus on renters rather than on single-family rooftop installations and, in so doing, will lower the costs per MW even with higher wages.<sup>59</sup> Contracting models for energy efficiency and community solar that aggregate multiple small projects, all with the same contract terms, can more easily incorporate wage and skill standards.





#### **4b. Phase incentives so they first target those segments of the industry that have both higher emission reduction per dollar invested and better workforce outcomes.**

A sequenced approach to incentives can leverage their high-road impact. For example, programs to incentivize energy efficiency projects in the municipal, university, schools and hospital (MUSH) sector, where labor standards usually already exist, provide an opportunity for achieving energy savings while producing good jobs. Focusing on these sectors will encourage high-road employers with good labor practices that can then be transferred to more-challenging sectors, as businesses gain learning and efficiency over time.

#### **5. Use public-sector insourcing or exclusive franchise contracting models to support labor and environmental standards for public services and some incentive and low-income programs.**

State and local jurisdictions and other public entities can use their own employees instead of subcontracting, or use exclusive franchise systems for services that are currently “open market.” Subcontracting in some weatherization programs has led to low wages and lack of career ladders for workers. Open markets in waste, where customers contract with private waste providers, have impeded enforcement of state waste-diversion mandates and produced low-road labor practices.

In an exclusive franchise system, local governments set contract terms and conditions, and can more easily enforce environmental and labor standards. The City of Los Angeles adopted the exclusive franchising model for its waste system. The LADWP insourced its weatherization program that had been previously subcontracted, allowing the creation of career ladders for entry-level weatherization workers into permanent jobs in the utility.

#### **6. Use metrics to measure the impact of climate policies on job numbers, job quality, and job access.**

Tracking and reporting on the job impacts of climate policy is necessary to measure progress over time. The CARB is currently developing methods and metrics for tracking job numbers, job quality, and job access. Local jurisdictions commonly use commercial software that processes certified payroll records to track compliance with prevailing wage and local/targeted hire rules (while maintaining confidentiality of worker information). Agencies could contract for the adaptation of this software to assess job quality and job access in a wide variety of climate programs.



## **7. Incorporate workforce analysis into emerging-technology support programs.**

Agencies that are tasked with promoting the accelerated market adoption of emerging low-carbon technologies can help ensure that technology and skill development are coordinated by requiring that workforce analysis be incorporated into emerging-technology programs.

Workforce development agencies currently have very limited access to information on skill needs for new technologies that come to market. Workforce analysis can help fill this information gap and help training organizations identify priorities for training investments.

Agencies administering grants for research and development, demonstration projects, and pilot programs for emerging technologies can request that grantees identify key occupations that need to be engaged for successful performance of the emerging technologies and needs for skill upgrades, if they exist. Businesses that are receiving state support could be asked to identify: 1) the occupations that are critical to the planning, installation, maintenance, and operation of the technology; 2) any performance problems that were related to skill gaps; and 3) the relevant training and skill requirements that the business uses to engage qualified workers. These three areas of workforce analysis are needed to anticipate skill upgrade needs and identify what part of the state's workforce development infrastructure can be leveraged to meet these needs.

## **8. Provide technical assistance to agencies implementing climate policy on how and when to apply these demand-side workforce interventions.**

The California Workforce Development Board (CWDB) should develop a technical assistance team to help agencies responsible for implementing climate policy as they seek to incorporate high-road workforce interventions. Agencies administering climate investments and policies have limited experience and training to assess when, where, and how to incorporate the tools and approaches outlined in this report. There is considerable expertise within the CWDB and among their university and NGO partners, on community workforce agreements, responsible contractor language, and other demand-side interventions, which can be called upon to assist climate agency staff on how and when to implement these recommendations. The CWDB currently provides this technical assistance, and is working to secure the resources necessary to scale and expand these efforts through a dedicated team devoted to interagency collaboration on jobs and climate issues.



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