ADVANCING HIGH ROAD STANDARDS IN ZERO-EMISSION TRANSPORTATION

Establishing a Framework and Recommendations for Workforce Standards

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GRIDWORKS

BLUEGREEN ALLIANCE

EXECUTIVE SUMMARY

This report presents a framework for understanding the potential for high road economic development in zero-emission transportation[i] and highlights workforce standards that may be adopted by employers and/or public agencies when developing program rules and procurement requirements. The framework establishes that taking the high road to zero-emission transportation will require that California employers and public agencies adopt and apply "high road standards" addressing three distinct and interrelated focus areas — workforce, equity, and environmental protection (Figure ES-1). This report addresses the first of these focus areas — workforce standards — and establishes that additional dialogue and collaboration are necessary to define standards that address equity and environmental protection.

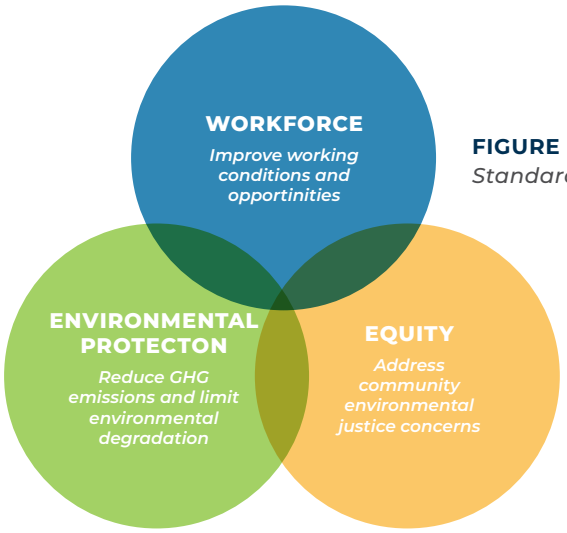

FIGURE ES-1. *High Road Standards Focus Areas*

A "high road economy" is one in which businesses "compete on the basis of the quality of their products and services by investing in their workforce."[1] Workforce standards are established practices in support of a high road economy, including wage and hiring standards, compliance mechanisms, domestic and in-state sourcing, training and apprenticeships, the right to organize, and stimulation of demand for labor practices consistent with these standards. However, approaches to building a high road economy are not limited to workforce standards, as workforce standards do not necessarily address environmental justice, social justice, or environmental protection concerns.

At the outset, it may seem like high road standards addressing workforce, equity, and environmental protection may increase the costs of zero-emission transportation and therefore, present a barrier to achieving the state's goals. However, this argument discounts the resulting "race to the bottom" for vulnerable communities where low road employment practices (e.g., undercutting labor costs at the expense of workers) are used. The race to the bottom first leads to higher rates of worker turnover, then inadequate workforce training and skill sets, often unsafe working conditions, and ultimately poorer quality work. These outcomes are barriers to zero-emission transportation goals and an inclusive economic recovery. The race to the bottom also perpetuates historical social structures and skewed power dynamics that oppress low-income communities and communities of color. **Therefore, *to achieve the state's economic, climate, and equity goals at the least social and economic cost, high road standards elevating job quality are necessary.***

This report contributes to a new direction for California, offering a high road standard framework for zero-emission transportation which would reverse the race to the bottom. Further, we recommend a set of discrete high road workforce standards, including:

i For the purposes of this report, the terms "zero-emission vehicles" (ZEV) and zero-emission transportation are both used to refer generally to zero-emission cars, trucks, and buses, and the components and operation of those vehicles. These terms are not meant to be exclusive.

HIRING AND WAGES

- Offer industry-specific or economy-wide wage and benefit standards that significantly exceed the California minimum wage or meet industry prevailing wages;
- Set specific targets to increase hiring, retention, and career paths for 'disadvantaged and dislocated workers,' including women, people of color, workers from local and low-income communities, workers impacted by fossil fuel transition, justice-involved workers, LGBTQ+ workers, and veterans;
- Require Project Labor Agreements, Community Workforce Agreements and/or Community Benefits Agreements for all zero-emission vehicle (ZEV) charging infrastructure and manufacturing facility construction projects; and
- Restrict temporary labor to temporary and short-term purposes only.

COMPLIANCE

- Ensure enforcement of all labor and employment laws;
- Ensure compliance with all applicable federal, state, and local environmental, health, and safety laws;
- Adopt requirements that compliance with clean vehicle rules and regulations are targeted to entities with common ownership or control over business operations;
- Make information disclosed by companies around meeting workforce standards and incentives publicly accessible; and
- Penalize and remedy violations of labor standards and protect against retaliation.

TRAINING AND APPRENTICESHIP

- Require all workers to be certified with suitable Minimum Industry Training Criteria;
- Invest in training and career pathways through apprenticeship programs and/or the High Road Training Partnership model; and
- Use certified apprenticeship programs where applicable, require contractually agreed-upon training, and/or comprehensively train workers for career pathways.

ORGANIZING

- Protect collective bargaining rights and ensure employer neutrality.

LEVERAGING PUBLIC SPENDING TO CREATE DEMAND

- Require these discrete high road workforce standards for all publicly funded solicitations greater than $50,000 and for incentive programs with significant investments.

DOMESTIC SOURCING

- Adopt requirements for domestic production of batteries, cells, non-battery content, and zero-emission vehicles; and
- Adopt requirements that subsidized vehicles are assembled domestically.

While ambitious, the workforce standards suggested here are not an exhaustive list of solutions, nor are they a blanket set of recommendations, to enable a high road approach to zero-emission transportation. Instead the overall framework offers a foundation for community-based organizations, policy-makers, employers, and other interested stakeholders to build upon to define and refine the standards that meet worker, employer, and community needs. Additional dialogue, coordination, and partnerships among communities, policy-makers, advocates, and employers are necessary actions for designing and implementing a high road approach to zero-emission transportation.

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To better understand high road standards and their application to ZEV, Gridworks convened an Advisory Committee composed of representatives of California state agencies, labor, environmental advocates, and environmental justice stakeholders. Over the course of 10 weeks, the Advisory Committee met four times to share their expertise and provided insight on the characteristics of a high road job, what workers and communities need from jobs, and the challenges of establishing workforce standards in the ZEV sector. The Advisory Committee's input was essential for considering a variety of perspectives and experience, though the conversation is far from finished.

Gridworks takes full editorial responsibility for this report and notes that this report does not necessarily represent consensus agreements developed among individual Advisory Committee participants or the organizations they represent.

INTRODUCTION

California is leading the nation in the transition to zero-emission vehicles (ZEV) and is at the forefront of policy, technology, and investment in an emerging industry poised to grow exponentially worldwide.[2] Consumer demand for electric vehicles (EVs) within California is enabled by the nation's largest charging infrastructure network and EVs are now the state's largest export.[3]

Decarbonizing vehicles is a top climate action priority for the state. The transportation sector accounts for about 40% of greenhouse gas emissions (GHG) in California.[4] At the same time, "the transportation system underpins the economy. Passenger vehicles move people a total of 342,000 miles per day and the freight system moves trillions of dollars of goods each year, supporting nearly one-third of the state economy and more than 5 million jobs."[5]

Given the impact of the transportation sector on the environment and the economy, it is not surprising that ZEVs are a focus of targeted investments and climate policy in all communities. The potential boon that ZEVs represent, however, is not limited to a reduction in GHG emissions and pollution. Beyond just a problem to solve, the transition to ZEVs is being hailed as an engine for both inclusive economic recovery and climate action.

WHY THE ZERO-EMISSION TRANSPORTATION INDUSTRY NEEDS HIGH ROAD STANDARDS

In September 2020, Governor Newsom issued an Executive Order requiring all new cars and passenger trucks sold in California to be ZEVs by 2035.[6] To support this goal, the Governor's 2021-22 Proposed May Budget Revision includes a $3.2 billion investment towards California's ZEV goals. This investment would help to accelerate buildout of ZEV infrastructure and manufacturing while also creating jobs that will support California's economic recovery from impacts of the global pandemic.[7] California's actions to decarbonize transportation are complemented at the national level by the American Jobs Plan, and President Biden's call to create good-quality jobs electrifying vehicles, with at least 40% of climate and clean infrastructure investment benefits going to disadvantaged communities.[8]

While the future growth of the ZEV industry is clear, the location, quality and types of jobs that will be created to drive the industry are not. Transportation electrification could bring as many as 500,000 new jobs to California by 2030, with 36% or 192,000 jobs projected to be in disadvantaged communities.[9] Yet, despite productivity gains and increased prosperity over the last 40 years, California has also experienced a steady deterioration of job quality and an enduring sense of economic insecurity.[10]

Wage stagnation and growing income inequality in California indicate that many Californians are being left behind from the state's robust economy.[11] Between 2006 and 2018, the bottom 20% of California households experienced a 5% decline in average income ($16,441 to $15,562), whereas the top 5% of households experienced an 18.6% increase in average income ($426,851 to $506,421). These trends mean that it is becoming more difficult for low-wage workers to support their families and maintain a decent quality of life.[12]

Similarly, while the auto manufacturing industry employs 20,000 people in California and one million people nationally, job quality in recent decades has been compromised by offshoring of production and supplies, financing, reliance on temporary workers, deterioration of workers' freedom of association, and weakened health and safety enforcement.[13] Real wages for US production workers in auto assembly and parts have declined by over 20% in the past 15 years due to these and other economy-wide trends.[14]

Workforce standards are a proven tool to address socioeconomic inequities that leave people vulnerable to loss of income or security when they are sick or faced with crisis.[15] However, Gridworks' High Road Advisory Committee concluded that *high road* standards for jobs are not limited to workforce standards. The Committee discussed how moving California towards a high road economy will also require decision-makers to establish standards that benefit communities that have been left out of the clean transportation economy and serve communities that are or will be impacted by the transition to zero-emission transportation. Additionally, specific standards must be set for environmental considerations including the handling of toxic substances and environmental degradation caused by industrial development. Adopting and applying a comprehensive set of high road standards is a necessary tool to ensure that the transition to zero-emission transportation occurs in an inclusive way that simultaneously advances state and local goals on justice and climate.

This report presents a framework for understanding high road standards as tools that address three distinct and interrelated focus areas: workforce, equity, and environmental protection. The report also shares workforce standards, developed from BlueGreen Alliance work, that may be considered by ZEV employers and/or public agencies when developing ZEV program rules and procurement requirements. Future work will explore high road standards that address equity and environmental protection (Figure 1).

Through deliberate and targeted regulations, the state can support access to high quality careers for people of color, unemployed, LGBTQ+, justice-involved, homeless, and other disadvantaged California workers

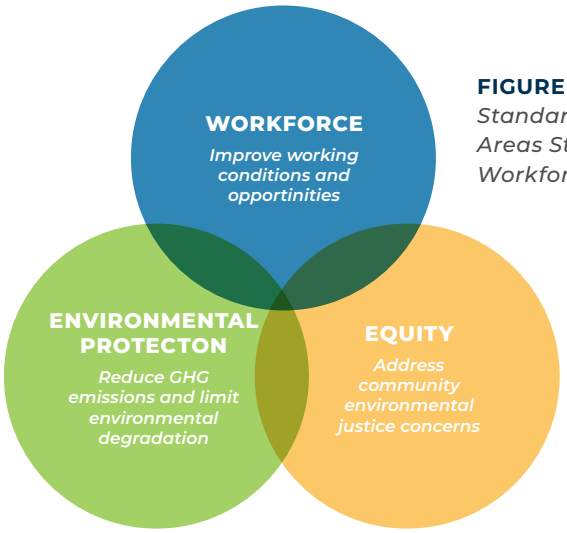


FIGURE 1. *High Road Standards Focus Areas Starts with Workforce Standards*

at the same time that it decarbonizes the transportation sector. High road jobs offer family-sustaining incomes, break down systemic barriers to employment and promotion, and support the state's fiscal health by cultivating an inclusive economy that benefits all Californians. The expected intensification of state and federal investment, together with the current reliance of ZEV technologies on both public procurement and rebates to incentivize vehicle purchases, present a unique opportunity for the state to promote the dual benefit of climate action and the creation of high road jobs.

GROWING EVIDENCE THAT WORKFORCE STANDARDS ARE PROVEN TOOLS TO IMPROVE QUALITY OF LIFE

Over the last five years, a growing body of evidence has demonstrated how workforce standards are necessary to improve working conditions and workers' quality of life. Gridworks highlights these publications for those interested in learning more. We note that this is not an exhaustive list and welcome additions from readers.

UC Berkeley Labor Center, 2016, *Race to the Bottom: How Low-Road Subcontracting Affects Working Conditions in California's Property Services Industry*

Fenn, A. et al, 2018, *The Effects of Prevailing Wage Repeals on Construction Income and Benefits, Public Works Management & Policy.*

Li, Zhi, et. al., 2019, *The Effect of Prevailing Wage Law Repeals and Enactments on Injuries and Disabilities in the Construction Industry.*

UC Berkeley Labor Center, Sam Appel and Carol Zabin, 2019, *Truck Driver Misclassification: Climate, Labor, and Environmental Justice Impacts.*

California Workforce Development Board, 2020, *Unified Strategic Workforce Development Plan: Strategic Planning Elements 2020-2023.*

Yuan, Quan, 2020, Bearing the Brunt of Expanding E-Commerce: Logistics Sprawl, Goods Movement, and Environmental Justice.

Press Release: LA County WDACS, Proterra, United Steelworkers Local 675, and Community Groups Announce Historic Electric Bus Manufacturing and Workforce Partnerships, October 2, 2020.

BRINGING ZEV-RELATED MARKETS AND INDUSTRIES TO CALIFORNIA

There is potential for California to attract many ZEV-related markets and industries to the state, including charging infrastructure construction, vehicle manufacturing and assembly, and the electric vehicle battery supply chain. Many of these industries are already emerging in the state and are evolving quickly to align with ambitious policy goals. To support an inclusive transition to ZEVs, however, the policies designed to incentivize and increase access to ZEVs must be adopted and implemented in tandem with policies that elevate workforce standards. The state can and should act deliberately and without delay to ensure that the creation of high road jobs is keeping pace with the rapid growth of the ZEV sector.

- **Charging Infrastructure Construction and Vehicle Goals:** Executive Order B-48-18 sets goals of having 250,000 ZEV charging ports by 2025 and 5 million ZEVs in California by 2030.[16] Currently, the state has more than 13,200 public and private EV charging stations, with more than 36,600 charging outlets.[17] The California Energy Commission estimates that over 700,000 public and shared chargers are needed to support 5 million ZEVs.[18] Significant and rapid progress is necessary for California to achieve established goals. High quality jobs can attract the needed workforce.
- **ZEV-related Manufacturing:** Electric bus, truck, and charging infrastructure manufacturing facilities are already located throughout California and continued growth of these facilities can mean job growth and opportunities to connect underserved community workers to manufacturing jobs.[19] Some manufacturers of zero-emission buses are already committed to a high road approach.[20] However, in the absence of enforceable standards, the high road approach has not yet spread throughout the private clean vehicle manufacturing sector.[21]
- **Developing the Battery Supply Chain:** The development of Lithium Valley in Imperial County has the potential to establish an anchor for a fully integrated domestic EV battery supply chain.[22] The Lithium Valley Commission is tasked with reviewing, investigating, and analyzing issues and potential incentives for lithium extraction and use in California.[23] Development of high quality jobs should be a key consideration within the Commission's analysis.

FIGURE 2. *ZEV-related Manufacturing in California*

From: Greenlining and Union of Concerned Scientists (May 2017) *Delivering Opportunity: How Electric Buses and Trucks Can Create Jobs and Improve Public Health in California*

DEFINING HIGH ROAD WORKFORCE STANDARDS

The UC Berkeley Center for Labor Research and Education defines a "high road economy" as one where businesses "compete on the basis of the quality of their products and services by investing in their workforce."[24] The same report notes that "a good, family-supporting job pays a living wage; offers a stable schedule; provides benefits such as health care, retirement, paid sick days, and paid family leave; offers wage increases as skills are acquired; provides safe and healthy working conditions; and complies with all workplace laws (e.g., wage and hour, employee classification, health and safety, anti-discrimination, workers' compensation, and right to organize laws).[25]

Workforce standards are established practices in support of a high road economy, including wage and hiring standards, compliance mechanisms, training and apprenticeship programs, the right to organize, and stimulation of demand for labor practices consistent with these standards. Unionized employers have established critical precedent and examples of high road standards; however, non-union employers can also exemplify high road principles. Private and public sector employers can take the high road and apply these standards to their workforce.

RECOMMENDATIONS

The high road workforce standards highlighted in this section were identified based on BlueGreen Alliance's experience and coalition-building efforts, as well as their policy toolkit S*tate-based Policies to Build a Cleaner, Safer, More Equitable Economy*.[26] The recommendations were reviewed and discussed by the Advisory Committee, lending breadth and perspective to their application.

HIRING AND WAGES

Employers should offer industry-specific or economy-wide wage and benefit standards that significantly exceed the California minimum wage or meet industry prevailing wages.[ii]

Prevailing wages agreements and requirements are common in the construction industry – however this mechanism is not, and should not, be limited to construction projects.[27] Higher wages and benefits can attract workers who perform high-quality work, helping employers meet production milestones on-time and safely, without increasing total costs. Prevailing wages should be required across manufacturing, equipment operations, service occupations, and construction in the ZEV economy.[28] Further, projects that pay prevailing wages experience fewer injuries, workplace-related disabilities, and fatal accidents.[29] In emerging industries, such as the battery supply chain, and evolving industries, such as ZEV manufacturing, prevailing wages are not guaranteed, but should be standardized in public investments and considered as a competitive strategy for high road firms.

In construction, provision of health insurance increased the likelihood that a worker would remain in construction over a four-year period between 13% and 41%, relative to a worker without health insurance. Higher rates of retention were related to the provision of union health insurance that was portable across participating contractors.[30]

Employers, working with community-based organizations, should make substantial, binding, and explicit commitments with specific targets to increase hiring, retention, and career paths for 'disadvantaged workers,' including women, people of color, workers from local and low-income communities, justice-involved workers, LGBTQ+ workers, and veterans. Employers should also make such commitments to hiring and career paths for 'dislocated workers' from the oil and gas industries.

Targeted hire provisions require or incentivize employment of workers from certain communities. In implementing the "responsible contractor" provision of the 2015 Clean Energy and Pollution Reduction Act, the California Public Utilities Commission defined a disadvantaged worker as an individual who meets one or more of the following criteria:

- *Lives in a household where total income is 50% of Area Median Income;*
- *Is a recipient of public assistance;*
- *Lacks a high school diploma or GED;*
- *Has previous history of incarceration lasting more than one year or more following a conviction under the criminal justice system;*
- *Is a custodial single parent;*
- *Is chronically unemployed;*

ii Prevailing wages reflect average or market wages for a given type of work in a given area. In California, all workers employed on public works projects must be paid prevailing wages. See the California Department of Industrial Relations for more information (https://www.dir.ca.gov/public-works/prevailing-wage.html).

- *Has been aged out or emancipated from the foster care system;*
- *Has limited English proficiency; or*
- *Lives in a high unemployment ZIP code that is in the top 25% of only the unemployment indicator of the CalEnviroScreen Tool.*[31]

Targeted hire provisions are necessary to advance diversity, justice, and equity goals in the clean economy. As the California Workforce Development Board states, "Creating a workforce and education system that provides upward mobility for all Californians benefits the economy and fulfills the state's promise to recognize the ability of everyone who lives here to participate and thrive."[32] Employers and communities can leverage Community Workforce Agreements to determine targeted hire provisions in construction contracts. Similarly, in manufacturing and operations projects, the government and employers can enter into Community Benefits Agreements or binding targeted hiring plans.

All ZEV charging infrastructure and manufacturing facility construction projects should employ Project Labor Agreements, Community Workforce Agreements and/or Community Benefits Agreements

Project Labor Agreements, Community Workforce Agreements, and Community Benefits Agreements are permitted on construction projects. The agreements can be required when public funds subsidize constructing factories or installing charging infrastructure. These agreements can help workers connect to job opportunities, address community needs for a project, and require good wages, benefits and working conditions.

The Partnership for Working Families is a national network of advocacy organizations working to promote policies that create quality jobs and thriving, healthy communities.[33] Their Community Workforce Agreements Guide notes, "Growing evidence demonstrates that the interests of building trade unions and underrepresented communities seeking access to lifetime construction careers can be effectively met with well-structured Community Workforce Agreements."[34] The Guide also highlights that "it is important to remember that every Community Workforce Agreement is developed in relation to unique local conditions. And in many cases, the provisions that are negotiated in any particular agreement represent a compromise for all parties."[35]

Temporary labor is restricted and utilized for temporary and short-term purposes only

High quality zero-emission transportation jobs should be stable and include a supported career pathway. Elements of economic security such as health and retirement benefits are generally unavailable to temporary employees. The use of temporary labor for projects tied to long-term policy goals, such as the transition to zero-emission transportation, can be a barrier to predictable and stable economic growth if temporary labor does little to cultivate family-sustaining jobs and enduring paths toward wealth building. Where temporary labor is used, workers should have access to similar benefits that are available to employees including prevailing wage, training/upskilling, and promotion opportunities.

COMPLIANCE

State agencies ensure enforcement of all labor and employment laws, including proper classification of employees and anti-discrimination laws

California is a leader in establishing fair labor and employment laws; however, enforcement mechanisms, and the agencies with the authority to implement said mechanisms, should be clarified and implemented to ensure that employers are in compliance. California's Department of Industrial Relations and the Division of Occupational Safety and Health (also known as Cal/OSHA) are tasked with improving working conditions for California's wage earners and, therefore, should lead on clarifying enforcement mechanisms for existing labor and employment laws.

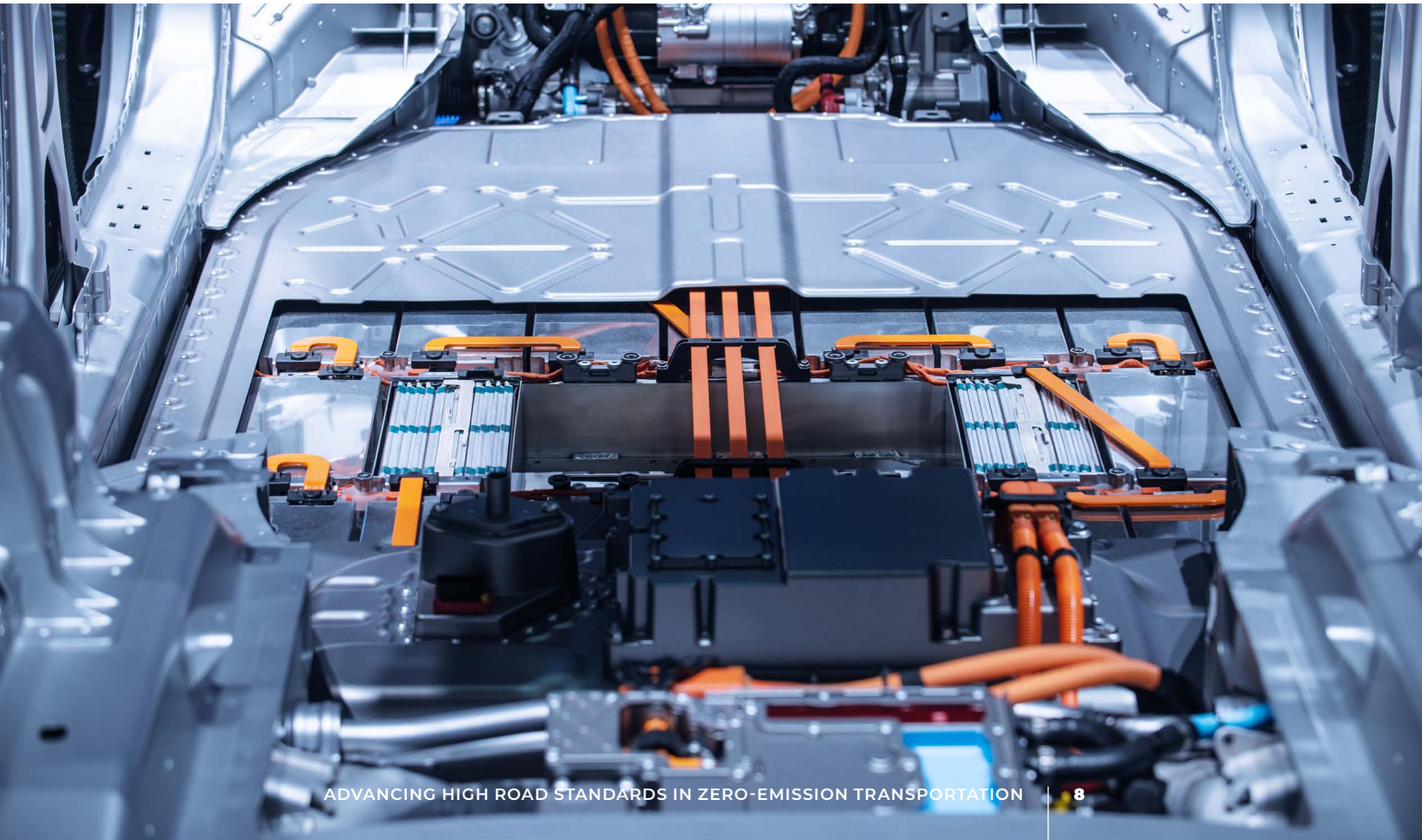
The UC Berkeley Labor Center argues that driver misclassification as independent contractors in the goods movement industry is a significant barrier to compliance with California's clean truck standards. They posit that the contract truck driver model places the financial burden of compliance onto the driver, who is often making low wages and cannot afford the costs of complying with environmental regulations or clean truck rules. The model perpetuates environmental inequities that disproportionately expose low-income communities and communities of color to higher pollution levels.[36] Further, the model results in wage theft and lost tax revenue as companies are able to avoid payroll and other taxes applicable to employees.[37]

Compliance with all applicable federal, state, and local environmental, and health and safety laws

Safety is a critical component of high quality, high road jobs. The transition to zero-emission transportation will require that workers receive training to ensure their safety on the job. It will also require that employers comply with all health and safety laws. Cal/OSHA is an integral agency in this compliance effort.

Adopt requirements that compliance with clean vehicle rules and regulations are targeted to entities with common ownership or control over business operations, as in fleet driving of trucks or Transportation Network Companies (TNCs).

The California Air Resources Board has established precedent in the Advanced Clean Trucks regulation to make companies that control trucking operations, not misclassified truck drivers, responsible for clean vehicle compliance. This work needs to be carried forward into the Advanced Clean Fleet rule and subsequent regulations. Similarly, as the California Public Utilities Commission considers enforcement regulations for implementing the Clean Miles Standard, the agency should consider effective financial and legal mechanisms to ensure that TNCs pay the costs of transitioning to electric or zero emission vehicles, and not drivers.



Information disclosed by companies around meeting workforce standards and incentives should be publicly available

Workforce standards are tools that address socioeconomic inequities by ensuring that workers have access to fair working conditions. In short, they are tools that help employers promote equity among workers. In Greenlining Institute's publication, *Making Equity Real in Climate Adaptation and Community Resilience Policies and Programs*, they recommend that policies and grant programs include mechanisms to evaluate whether and how efforts are meeting stated equity goals. Metrics should be co-developed with stakeholders to ensure equity is a foundational consideration for standards.[38]

Developing and tracking evaluation metrics encourages employers to be accountable for the workforce standards and goals they adopt. Making the data publicly available also promotes transparency and allows stakeholders opportunities to compare across employers and coordinate on where example employers can be celebrated and improvements can be made for employers seeking to reach the high road.

Effective penalties and remedies for violations of labor standards, and retaliation protection

To ensure accountability, standards must be enforceable and violations should be penalized and mitigated with significant and meaningful damages awarded for breaches of contract. As a starting point, the Department of Industrial Relations and Cal/OSHA should support stakeholders in understanding where mechanisms to enact penalties and remedies already exist, and stakeholders should share where they see gaps in mechanisms.

TRAINING AND APPRENTICESHIP UTILIZATION

Labor/Employer skill certification requirements with suitable Minimum Industry Training Criteria (MITC)

The California Department of Industrial Relations Division of Apprenticeship Standards establishes Minimum Industry Training Criteria (MITC) for all crafts. MITC set the baseline for apprenticeship program training standards, which all apprentices must meet before graduating the program. California's ZEV industry has already set precedent in establishing baseline certification requirements — beginning January 2022, for charging infrastructure construction projects funded by the California Public Utilities Commission, California Energy Commission, or the California Air Resources Board, workers must be certified under the Electric Vehicle Infrastructure Training Program (EVITP).[39] Stakeholders and employers in vehicle manufacturing and assembly, the battery supply chain, and vehicle operations and maintenance should follow suit to create demand for a well-trained workforce.

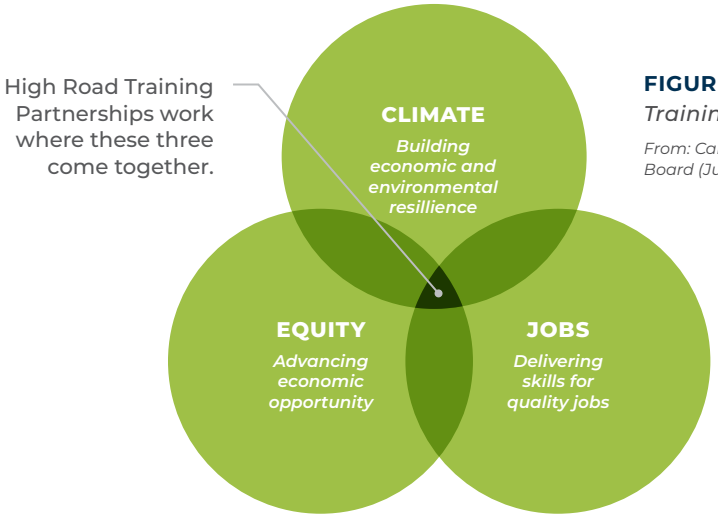


FIGURE 3. *High Road Training Partnerships*

From: California Workforce Development Board (June 2018) High Road Framework

Investments in training and career pathways through apprenticeship programs and/or aligned with the High Road Training Partnership model[40]

The Advisory Committee emphasized training and clear career development pathways as critical elements of a high road job. Training and upskilling provide pathways for workers to develop skills that align with changing industries and to ensure that workers are qualified for the jobs they are in. The California Workforce Development Board High Road Training Partnership (Figure 3) brings together employers, workers, unions, and intermediaries connecting workers to jobs (e.g., employment centers, community colleges) to collaborate and connect prospective workers to high quality jobs. This model should be referenced, if not replicated, to ensure that a well-trained workforce is hired into high quality jobs.

Division of Apprenticeship Standards certified apprentices are utilized in applicable fields, contractually mandated training or career paths are provided, or comprehensive training for the job are provided

The California Department of Industrial Relations Division of Apprenticeship Standards works with employers to develop a skilled workforce with viable career pathways.[41] Apprenticeship utilization can help ensure quality work is done right and keep projects on schedule and within budget. In working with certified apprentices and/or participating in apprenticeship programs, ZEV employers can ensure that their workforce is trained and keeping up with the necessary skills in a changing market. In industries where apprenticeships do not exist or are uncommon, contractually mandated training and comprehensive training plans indicate a high road approach to job training.

ORGANIZING

Efforts to protect collective bargaining rights and employer neutrality; An explicit neutrality policy exists on any issue involving the organization of employees of the company, for purposes of collective bargaining

BlueGreen Alliance describes "organizing rights provisions" as "anything that helps rebalance the power dynamic between workers trying to organize a union and their employer."[42] At the center of organizing rights provisions is the need to engage with workers and their representatives and respect worker voice. The California Workforce Development Board identifies worker voice as a principle for the state's workforce development system. They note that worker voice begins with a "recognition of the wisdom of workers who know their jobs best" and that "[b]y focusing on developing robust solutions to critical issues identified by industry, worker voice helps build a culture of continuous learning and collaboration, which is critical as industries change and advance over time."[43]

LEVERAGING PUBLIC SPENDING TO CREATE DEMAND FOR A HIGH ROAD ZERO-EMISSION TRANSPORTATION INDUSTRY

For competitive bid programs (such as RFPs) exceeding $50,000, competitive labor and community-focused criteria should be used, such as wage and benefit amounts, investments in training, commitments to hiring disadvantaged workers, and other workforce commitments. This should be substantially similar to model procurement contracts such as the US Employment Plan.

Workforce standards such as the kinds described above constitute one of the most strategic pathways for state government to promote equity and to influence the kind and quality of zero-emission transportation jobs created and maintained in California. State agencies should ensure meaningful participation of labor and community stakeholders in standards design and implementation and leverage these workforce standards as baseline criteria for awarding public funds to state contractors and grantees.

DOMESTIC SOURCING CONSISTENT WITH FEDERAL AND CALIFORNIA BUY AMERICAN ACTS

Adopt requirements that subsidized vehicle batteries, cells, and non-battery content are domestically produced and contain significant domestically-sourced percentages of critical minerals

At present, onshoring and developing a domestic battery supply chain is a high priority for the Federal government as well as a wide spectrum of auto industry stakeholders. California agencies should develop funding mechanisms to boost domestically-based battery production and should use the full portfolio of state procurement and subsidy mechanisms to incentivize high road domestic and California jobs in battery manufacturing supply chains, non-battery content supply chains, and critical mineral supply.

Adopt requirements that subsidized vehicles are assembled in the United States or California

A large and diverse selection of US-built electric vehicles will be manufactured at scale by a variety of automobile assemblers within the next five years.[44] It is critical that California's subsidies and procurement streams incentivize manufacturers to assemble vehicles in the US and California so that the state can create jobs and foster the growth of emerging ZEV manufacturing and assembly trades. The significant planned supply of US-produced vehicles will ensure that EV adoption goals are not impeded.

CONSIDERATIONS FOR HIGH ROAD STANDARDS TO PROMOTE EQUITY AND PROTECT THE ENVIRONMENT

The inextricable link between equity, jobs, and the environment cannot be overstated and is evidenced in the paradoxical boom of online shopping brought on by the pandemic. With the intensification of e-commerce and the resulting logistical sprawl on the rise, many have focused on the importance of electrifying the movement of these goods (medium to heavy duty vehicles, ports, etc.) but with little attention paid to the impact on local communities. Entire landscapes are being transformed by the physical component of online consumption. The proliferation of warehouses and distribution centers, and the subsequent traffic corridors, pollution, noise and road damage do little to foster healthy neighborhoods or prosperous communities. Troubling still, is the concentration of these warehouse districts in regions that have long borne the disproportionate impacts of climate change and which are often low-income communities of color.[45]

This transformation is already underway in parts of Southern California where local communities find themselves faced with the impossible choice between economic development and clean air. Most recently, local regulators have responded to these concentrated burdens by adopting rules to limit emissions from the diesel trucks these warehouses attract.[46] Others have posited clean truck rules as the cure. Yet in the same way that workforce standards are only one part of a high road standards framework, solving for air quality is only a piece of addressing community burden and the state needs to take more comprehensive action to advance equity.

ZEV battery supply chains are yet another example that underscores the comprehensive link between the environment, equity, and the economy. In order for ZEVs to more meaningfully contribute to the state's goals for a sustainable and equitable clean economy, there needs to be a greater focus on how and where critical minerals for ZEV batteries are recovered and with what impact on the environment and local communities. Advocates agree that the state needs to invest big and move quickly if we are to succeed in mitigating the impact of vehicles on the environment. At the same time, the state cannot give rise to a false choice between decarbonizing the transportation sector and building an inclusive clean economy that benefits all Californians.

CONCLUSION

Decarbonizing the transportation sector is critical to climate action. California's challenge will be in ensuring that rapid growth of the ZEV sector and inclusive economic development keep pace with one another.

Over the next two decades, the demands on the transportation sector are projected to intensify further. Nearly 40% of cargo containers entering the U.S. pass through California. By 2045, the weight of goods moved by trucks in California is expected to increase by 60%.[47] This forecasted growth in freight operations and goods movement in California will increase demand for heavy duty vehicles, all of which must be zero-emission for the state to meet its climate goals. However, due to a lack of enforcement of existing labor and employment laws and a lack of high road standards for driving jobs, low wage drivers are bearing the burden of compliance with clean truck rules. This presents a significant barrier to achieving the state's zero-emission transportation goals.

It is important to recognize workers and the job they occupy as part of a community ecosystem. High road standards are needed to set shared expectations for how jobs and workers are contributing to and benefitting from the ecosystem. Without standards, there is no guarantee that jobs in transportation electrification will be quality jobs that provide family-sustaining wages, benefits, and training opportunities. There is even less certainty that employers will consider broader environmental justice, equity, or environmental issues.

Therefore, to achieve the state's economic, climate, and equity goals at the least social and economic cost, high road standards elevating job quality are necessary. High road standards will bring working people and their representatives into the fold of invested zero-emission transportation stakeholders, creating a durable coalition that can reliably bolster the economic and equity case for vehicle incentives, bold regulations, and significant annual budget allocations.

Our transition to clean transportation needs to focus not just on carbon emissions but also on the socioeconomic impact that the transportation sector has and will continue to have on communities and the environment for generations to come. The state must ensure that public investment fosters inclusive economic development. Workforce standards will get us part of the way but more is needed.

To achieve the promise of a high road economy, community and environmental standards will need to be developed as well. Additional dialogue, coordination, and partnerships among communities, policy-makers, advocates, and employers are necessary actions to getting to a high road approach to zero-emission transportation.

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