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*Comment Received From: Jeremy  
Submitted On: 11/8/2024  
Docket Number: 24-BPS-01*

**Western States Council of Sheet Metal Workers CBE Performance  
Strategy RFI Response**

*Additional submitted attachment is included below.*



**November 8th, 2024**

California Energy Commission  
Docket Unit, MS-4  
Docket No. 24-BPS-01  
715 P Street  
Sacramento, CA 95814

**Re: Docket Number: 24-BPS-01 – California Building Energy Performance Strategy Report**

Dear Energy Commissioners and Staff:

We write on behalf of the Western States Council of Sheet Metal, Air, Rail, and Transportation Workers (SMART WSC). We appreciate the Commission's engagement with stakeholders in implementing SB 48 and fully support the development of a comprehensive strategy to use benchmarking data to track and manage energy usage and greenhouse gas emissions in covered buildings, aligning with California's goals and standards.

We urge the Commission to learn from previous programs and field results. To meet California's carbon reduction and energy efficiency targets while fostering healthy buildings, immediate action is essential. We propose an aggressive strategy, to match our aggressive goals, focused on the ultimate outcomes of code requirements, rather than solely on their intended purposes. Additionally we propose measures that will ensure improvements in building energy efficiency will be achieved in a way that benefits building inhabitants and the general public's health.

SMART WSC appreciates the opportunity to submit comments regarding the California Energy Commission's implementation of SB 48, passed by the California Legislature in October 2023.

SMART WSC represents Sheet Metal Workers' Local Unions in California, Arizona, Nevada, and Hawaii. Our members install HVAC systems and are committed to not only ensuring indoor comfort through heating and cooling but also safeguarding air quality and promoting energy efficiency in Heating, Ventilation, and Air Conditioning (HVAC) systems. We partner with the Joint Committee on Energy and Environmental Policy (JCEEP) to research and accelerate best practices in the industry along with our contractor partners - the Sheet Metal and Air Conditioning Contractors' National Association (SMACNA). In California alone, SMART WSC operates over 15 training facilities, where thousands of workers are trained daily in HVAC specialties, including heat pump installations.



### **Stakeholder Contact Information and Areas of Interest**

1. Please provide the following information about you and/or your organization:
  - 1.1. Names & email addresses of public contacts for you and your organization:
    - i. Chris Ruch, Codes and Standards Representative (Local 104)  
[chrisr@smw104.org](mailto:chrisr@smw104.org)
    - ii. Vince Sugrue, State Legislative Director (Local 104)  
[vince@smw104.org](mailto:vince@smw104.org)
    - iii. Jeremy Zeedyk, Special Projects Coordinator (SMART WSC)  
[jeremy@wscsmw.org](mailto:jeremy@wscsmw.org)
  - 1.2 What are your areas of interest in this report development process?
    - i. **HVAC's Role in Carbon Reduction:** Energy efficiency, HVAC installation quality, compliance with regulations, workforce quality, energy consumption in buildings.
    - ii. **Mechanical Acceptance Testing:** Lack of data and enforcement in the MAT program, discrepancies between design and actual energy savings, need for better enforcement and statewide databases.
    - iv. **Workforce Training and Standards:** Importance of comprehensive training for HVAC installers, consequences of poor installation, apprenticeship programs, and improving compliance with HVAC standards.
    - v. **Permit Compliance Issues:** Low permit acquisition rates, energy savings potential with improved compliance, and the impact of unlicensed contractors.
    - vi. **Restructuring Rebate Programs:** Evolving rebate programs to prioritize skilled labor and permit compliance, ensuring effective installation for energy savings.
    - vii. **High Road Workforce Standards and Policy Recommendations:** Emphasis on high-road employment practices, labor standards, and upskilling to align with California's climate and energy goals.
  - 1.3 Description of your organization and the constituency you represent?
    - i. SMART WSC represents over 11,000 Building Trades Union members across California who work in all aspects of the sheet metal industry, including the fabrication, design, installation, testing, service, and maintenance of HVAC equipment, as well as the fabrication and installation of roofing and building enclosure materials. We proudly support the Title 24 Mechanical Acceptance program and are one of the largest providers of certified Mechanical Acceptance Technicians in the state.
  - 1.4 What is the best way to outreach and engage with your constituency?
    - i. The CEC can work with our public contacts above to help engage in the process laid out in SB 48. In addition, SMART WSC is more than happy to host the CEC at any of our state-of-the-art training facilities throughout the state of California.



## **Other Comments, Issues, and References**

12. Please submit any additional comments, issues, references, models, recommendations, or other information that you believe is relevant to the development of the California Building Energy Performance Strategy Report.

### **Acknowledging HVAC Role in Carbon Reduction**

The federal government has recognized and documented the crucial role Heating, Ventilation, and Air Conditioning (HVAC) systems play in achieving energy efficiency goals. When properly installed, HVAC replacements can significantly impact energy consumption in buildings, which are among the largest energy users.

- Buildings account for about 40% of total US energy use<sup>1</sup>.
- 35%+ of the US energy is used to operate buildings Heating, Ventilation, and Air Conditioning (HVAC)<sup>2</sup>.
- In southern California HVAC accounts for 51% of a building's energy consumption.<sup>3</sup>

The only way to significantly improve compliance with existing energy efficiency and Indoor Air Quality (IAQ) requirements is to effectively address workforce quality and permit compliance. Poor installation practices and widespread permit avoidance are undermining California's energy efficiency standards. To tackle this issue, we offer our expertise in HVAC and knowledge of the reality of field installations to develop a plan moving forward that focuses on the intent of HVAC related requirements being adopted and achieved in the field.

### **California's Mechanical Acceptance Testing Program Lacks Information and Enforcement**

One of the real world observations of the Mechanical Acceptance Testing (MAT) Program is that it is nearly impossible to determine the program's effectiveness in reducing unnecessary energy usage due to a lack of a state-wide database of permitted projects, particularly those with HVAC in their scope. Because of this lack of basic information, it is unknown how many projects have met the requirement of Mechanical Acceptance Testing as a condition of the permit being closed versus how many projects should have had that requirement met but had a permit closed regardless. Recently, it was reported by a California Acceptance Test Technician Certification Provider (ATTCP) program that there are several counties in California that have had no Acceptance Test reports submitted. While it is possible that there are counties that have had

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<sup>1</sup> U.S. Energy Information Administration May 14th 2019, How much energy is consumed in U.S. residential and commercial buildings?, <https://www.eia.gov/tools/faqs/faq.php?id=86&t=1>

<sup>2</sup> Department of Energy September 2015, An Assessment of Energy Technologies and Research Opportunities, Ch.5: Increasing Efficiency of Building Systems and Technologies, <https://www.energy.gov/sites/prod/files/2017/03/f34/qtr-2015-chapter5.pdf>

<sup>3</sup> Los Angeles Department of Water and Power [Commercial Buildings: The Biggest Energy Users | Los Angeles Department of Water and Power](#)



zero projects permitted that included lighting or HVAC upgrades, it is highly unlikely that that is the case, which leaves lack of enforcement of the Energy Code as the obvious reasoning.

This has left a potentially staggering gap between what energy savings has been expected during the design phase and what energy savings has been realized through the Mechanical Acceptance Testing Program. It is SMART WSC's recommendation that 1) the CEC conduct a limited survey of at least 30 municipalities in California (10 large, 10 medium, and 10 small municipalities) to determine the number of permitted projects each municipality had in the current code cycle and compare that to how many had Mechanical Acceptance Test forms submitted, 2) the CEC investigates a sampling of projects (*at least 30 projects state-wide*) that are known to have had Mechanical Acceptance Testing performed by qualified technicians be analyzed and compared to projects that are similar in size, scope and project year to determine the level of energy savings have been achieved and 3) the CEC create and implement a statewide database for all projects permitted in California that includes the relevant scope of each project, the current status of the project, and the relevant documents required for closing out the permitted project. SMART WSC is willing to work with our partners at SMACNA and the NEMIC ATTCP program to help in these and any other efforts to help improve this program.

Another difficulty with the MAT Program that has hampered its growth and the creation of more quality jobs for California residents, particularly those from disadvantaged areas, is the lack of statewide enforcement of the program. With the creation of a statewide permitting database and the results of the aforementioned data analysis in hand, a much stronger case can be made to increase the CEC's ability to enforce the existing MAT program and reap the rewards of more stringent building designs that are to come in future energy code cycles.

**Building owners are reluctant or unable to invest in comprehensive energy saving improvements.**

While it is important to consider the energy impact of newly built buildings, the overwhelming majority of buildings that are connected to and dependent on the energy grid, are existing buildings with a large percentage of those existing buildings being residential. The reality is that many building owners are not easily persuaded to invest in meaningful improvements and upgrades to reduce their energy usage and/or greenhouse gas (GHG) emissions for a variety of reasons, even though many grant and rebate programs exist, often simply for lack of available time to implement or knowledge on how to do so.

SMART WSC encourages the CEC to better utilize its considerable amount of in-house talent for more than just academic exercises by implementing a more robust and proactive approach to making an impact on the overall energy consumption and GHG emissions reduction in California. The CEC should utilize the data received from the utility companies and each year identify buildings in the top 1% of energy consumption in the following categories: *mercantile, office, education, healthcare, lodging, warehouse and storage, and multi-family*. According to



the Office of Scientific and Technical Information (OSTI), these building types represent two-thirds of annual commercial building site energy consumption<sup>4</sup>. California has a commercial building stock of buildings at or above 50,000 sq. ft. of 96,910 buildings, which 1% in these categories could represent nearly 1,000 buildings each year. Given the limited resources of the CEC staff, expanding beyond 1% could prove a significant barrier but this program could provide a comprehensive template for other building owners to replicate.

Once identified, the CEC should provide the building owner with a comprehensive assessment and strategic plan for reducing the building's energy and GHG emissions. This effort should not stop at planning though, in order to maximize the overall impact and long-term success, the CEC should stay engaged throughout the project and help that building owner navigate the process from start to project completion, including engaging a skilled, trained, and certified workforce and securing project funding. In exchange for the CEC's efforts to help the building owner achieve energy cost savings and lower GHG emissions, the owners could be compelled to utilize high road workforce standards during the construction and agree to not increase rents for occupants, whether residential or business, at a rate more than the Consumer Price Index (CPI) for a reasonable period of time, perhaps 10 years.

Once this project is completed, the CEC should continue analyzing the energy consumption data for the building for at least 12 months and publicize that data to show, and hopefully encourage, other building owners of the benefits of a properly planned and executed project. Too many building owners only participate in small or single-scope projects that do not significantly reduce the energy consumption and GHG emissions coming from the existing building stock. In order to incentivize building owners to replicate this program and utilize the template this program would create, building owners could receive a tax abatement equaling 20% of the investment costs each year for 5 years provided they utilize High Road workforce standards for the installation as well as any maintenance during the period they receive tax abatements.

**The CEC should learn from past experience and require broader skills training.**

In recent years a significant effort was made to increase the amount of residential homes and buildings that utilized solar panel technologies. With this increase in demand for solar panel installation came an increased demand for workers to install these newly desired panels. Hundreds of workers were trained and utilized for this effort, however, when the demand eventually tapered off these workers were no longer needed for this task. While ebbs and flows are a natural part of the construction industry, the lack of comprehensive training for these

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<sup>4</sup> Understanding Building Energy Use in California Climate Zones 5 and 6: Basic Building Stock Characterization, Horsey et al. <https://www.osti.gov/servlets/purl/1998882>



workers led to a significant disruption in their ability to find meaningful employment and was an unnecessary disservice to the workers.<sup>5,6</sup>

Building Trades construction has a long and proud history of providing its members with a comprehensive and well-rounded education to ensure that each apprentice that becomes a journeyman will have the necessary skills and training to find employment with another contractor when projects come to their natural conclusion and end. In particular in the mechanical trades, complete system knowledge is taught, rather than just a specific skill as was the case in the solar panel example. This system knowledge allows a journeyman to understand that a seemingly minor discrepancy in installation or adjustment made in one place can have a large, and oftentimes costly, effect in other areas of the system or building.

To this point, the efficiency of heating, ventilation, and air conditioning (HVAC) equipment is heavily influenced by the quality of its installation. Even the best energy efficiency standards are ineffective if HVAC systems are not installed properly. This issue is becoming increasingly critical as residential and light commercial HVAC units grow more complex, needing to achieve energy efficiency, ensure Indoor Air Quality (IAQ), and address safety concerns related to flammable refrigerants—all at once.

Unfortunately, high road workforce standards are rarely included in rebate programs, and the lack of qualified installers has significantly impacted expected energy savings. Instead of high-efficiency units operating as intended, we end up "wasting energy efficiently".

- Poor quality installation is pervasive. A study for the California Energy Commission found that 30 to 50% of new HVAC systems and up to 85% of replacement HVAC systems that they evaluated were not performing correctly due to poor quality installation.<sup>5,6</sup>
- Poor quality installation of HVAC systems results in a 20% to 30% increase in energy use.<sup>7,8</sup>
- The EPA estimates that duct systems in a typical home lose about 20 to 30 percent of the conditioned air due to leaks, holes, and improperly installed ducts.<sup>9</sup>
- A study conducted by the U.S. Department of Energy Office of Scientific and Technical Information demonstrated that moderate compression in flexible ducts, typical of that often seen in field installations, could increase the pressure drop by a factor of four, while further compression could increase the pressure drop by

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<sup>5</sup> <https://irecusa.org/census-workforce-development/#:~:text=In%202023%2C%2029%25%20of%20employers,Census%202023Created%20with%20Datawrapper>

<sup>6</sup> <https://www.nrel.gov/docs/fy23osti/83652.pdf>

<sup>7</sup> Messenger, M. (2008). Strategic Plan to Reduce the Energy Impact of Air Conditioners. California Energy Commission Staff Report. CEC-400-2008-010. p. 20.

<sup>8</sup> California Energy Commission, Strategic Plan to Reduce the Energy Impact of Air Conditioners (June 2008), CEC-400-2008-010 at p. 5.

<sup>9</sup> Improve your home's duct system for comfort and savings. (n.d.-b).

[https://www.energystar.gov/sites/default/files/asset/document/ES\\_Duct\\_Sealing\\_flyer.pdf](https://www.energystar.gov/sites/default/files/asset/document/ES_Duct_Sealing_flyer.pdf)





factors close to ten. The overreliance on flexible ducts can increase the likelihood of underperforming systems or increased unit size to compensate for poor installation practices.<sup>10</sup>

The high rate of poor HVAC installation outcomes is directly linked to the use of untrained, underpaid workers who have not completed apprenticeship programs. Utilities have found that the majority of HVAC installers lack the technical knowledge, skills, and abilities needed for proper system installation<sup>11</sup>. According to a utility Energy Efficiency Business Plan, less than half of HVAC technicians in California are familiar with basic national work quality standards, and there are alarmingly high failure rates in job performance, even on routine tasks<sup>12</sup>. An OSTI study<sup>13</sup> of 10 systems indicated “that there may be a substantial number of leaky duct systems in the building stock: three systems had low leakage (less than 5% of duct inlet flow), and seven had substantial leakage (9 to 26%).” This showed “that some installers already can produce tight duct systems. Rather than requiring new construction and sealing techniques, it appears that installers of leaky systems only need training to use industry best practices.” Unionized sheet metal workers and the CAL SMACNA contractors that employ them are well versed in these industry best practices (SMACNA HVAC Duct Construction Standards) and apprentices and journeymen are taught them at JATC’s across the state.

To address these issues, the CEC should prioritize creating incentives for training HVAC technicians through approved apprenticeship programs that provide comprehensive technical education and system-wide understanding. Alternative training programs that focus on a single task or technology will produce technicians with limited skill sets and short-term applicability. Apprenticeships that emphasize system-wide knowledge will equip technicians to effectively adopt and apply both current and future technologies.

**Ensuring that the intent of standards and codes are achieved in the field through the successful implementation and improvement upon existing permit compliance structures.**

Obtaining a mechanical permit ensures that state and regional requirements are met. However, in residential and light commercial projects, these basic protections are frequently overlooked.

- A 2008 Energy Commission report revealed that permits for residential HVAC replacements were obtained only about 10% of the time<sup>14</sup>. The report estimated that

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<sup>10</sup> Abushakra, B., Walker, I. S., & Sherman, M. H. (2002, July 1). *Compression effects on pressure loss in flexible HVAC ducts*. HVAC & R Research. <https://www.osti.gov/servlets/purl/836654>

<sup>11</sup> SCE Energy Efficiency Business Plan 2018-2025 at p. 63; SDG&E Energy Efficiency Business Plan 2018-2025 at p. 216; PG&E Business Plan, Residential Appendix at p. 30.

<sup>12</sup> PG&E Business Plan, Residential Appendix at p. 30.

<sup>13</sup> Rationale for Measuring Duct Leakage Flows in Large Commercial Buildings, Wray et al. <https://www.osti.gov/servlets/purl/843145>

<sup>14</sup> California Energy Commission, Strategic Plan to Reduce the Energy Impact of Air Conditioners (June 2008), CEC-400-2008-010 at p. 17, 31.



addressing these issues could reduce California's annual peak energy demand by 130 megawatts.<sup>15</sup> (130 megawatt/hours equals 59.7 tons of CO<sub>2</sub><sup>16</sup>)

- A decade later, the California Public Utilities Commission (CPUC) estimates that permits were obtained for less than 8% of residential HVAC replacements. Additionally, the number of replacement projects in the 2018 study had risen to approximately 1 million per year, nearly three times the figure reported in 2008<sup>17</sup>.
- This suggests that improving HVAC compliance alone could result in 400 megawatts of energy savings. (400 megawatt/hours equals 184 tons of CO<sub>2</sub>)

Addressing the permit compliance issue is crucial to achieving federal and state energy efficiency goals. Contractors who follow permit regulations should be rewarded with an even playing field. This would reverse the current trend that rewards unpermitted work. Contractors bypassing permits can underbid competitors who obtain permits, often delivering substandard work. Moreover, unpermitted contractors are more likely to be unlicensed, rely on low-wage, untrained workers, and undermine California's "High Road" goals. Without permits, local building departments cannot enforce even the minimum requirements of the energy code and are unable to advance California's important energy goals.

While residential and light commercial buildings are not specifically addressed by SB 48, it is important to consider that larger commercial companies that build, renovate, and maintain the buildings covered by this legislation generally did not start out in that market. They usually begin in the residential market and gradually work up to the commercial market, and just like with apprentices, if they are not taught properly early on, they will bring their bad practices to the commercial market. This is why it is imperative for the long term success of the state's energy goals and in order to ensure a large, well qualified pool of commercial contractors, the state must consider and act on permit compliance in the residential and light commercial markets.

However, permit compliance alone does not guarantee better installation outcomes. Even permitted jobs frequently fall short of full code compliance, as meeting code only ensures the minimum standards are met. To address this reality, work on improving permit compliance will need to be paired with the aforementioned high road workforce standards.

### **Restructuring of Rebate Programs**

Rebates are a key driver in the adoption of new technologies, such as HVAC heat pumps and heat pump water heaters. While many rebate programs focus on the quantity of targeted

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<sup>15</sup> California Energy Commission, Strategic Plan to Reduce the Energy Impact of Air Conditioners (June 2008), CEC-400-2008-010 at p. 31.

<sup>16</sup> Environmental Protection Agency. (n.d.). *Greenhouse Gas Equivalencies Calculator*. EPA. <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

<sup>17</sup> See California Energy Commission, Request for Proposals: HVAC Equipment Installation Compliance Tracking System Business Needs and Functional Requirements, RFP-16-403 (Feb. 2017) at p. 10.



equipment installed, few prioritize the intended outcomes. Highly efficient units can only perform as expected when installed by skilled, trained, and certified technicians. Advanced equipment demands an advanced skill set, which is best achieved through proper training and ANAB ISO/IEC 17024 accredited personnel certifications<sup>18</sup>.

Just as rebate programs have successfully incentivized the adoption of new technologies, they should now evolve to include high road workforce standards and permit compliance. This will ensure that rebates fulfill their true purpose—enhancing energy efficiency, reducing carbon emissions, and ensuring safety for consumers.

### Proposed High Road Workforce Standards

- **Prevailing Wage:** CEC funded programs should require conformity with California Prevailing Wage Laws, specifically California Labor Code Section 1720, et seq.
- **Apprenticeship:** CEC funded programs should require compliance with the apprenticeship requirements that apply to a public works project as set forth in Labor Code § 1777.5.
- **Skilled and Trained Workforce:** CEC funded programs should require the use of a skilled and trained workforce, as set forth in Public Contracts Code § 2600 et seq., to ensure quality installation, maximize energy efficiency outcomes, ensure safety, and increase demand for apprenticeship graduates.
- **Opportunities for Workers from Disadvantaged Communities:** CEC funded programs should require that all participating contractors demonstrate a long-term commitment to providing career pathway opportunities for workers from disadvantaged communities through participation in a Division of Apprenticeship Standards-approved program in the relevant trade.
- **Project Labor Agreements:** Projects funded through the CEC over \$100,000 in size should be required to be built under a Project Labor Agreement (“PLA”).

### State Policy Supports the Imposition of High Road Workforce Standards

For over a decade, study after study and state policy after policy has called on the state to address this issue by adopting high road workforce standards that reward high road contractors, rather than continuing to subsidize low road contractors.<sup>19</sup> As the California Workforce Development Board (“CWDB”) explains: “High road employers provide quality jobs, compete based on the quality of their services and products, invest in a skilled workforce, and engage

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<sup>18</sup> ANAB ANSI National Accreditation Board. (n.d.). *Personnel certification accreditation: ISO/IEC 17024*. ANAB. <https://anab.ansi.org/accreditation/personnel-certification/>

<sup>19</sup> See, e.g., California Workforce Development Board, *Unified Strategic Workforce Development Plan: Strategic Planning Elements 2024-2027 (2024)* p. 28 (hereinafter “2024 State Workforce Plan”), available at [https://cwdb.ca.gov/wp-content/uploads/sites/43/2024/01/DRAFT\\_Strategic-Planning-Section-2024-27-Version\\_ACC\\_ESSIBLE.pdf](https://cwdb.ca.gov/wp-content/uploads/sites/43/2024/01/DRAFT_Strategic-Planning-Section-2024-27-Version_ACC_ESSIBLE.pdf)



workers and their representatives in the project of building skills and competitiveness. At minimum, quality jobs are characterized by family-supporting wages, benefits, safe working conditions, fair scheduling practices, and career advancement opportunities that are transparent.”<sup>20</sup>

In 2020, the CWDB released the 2020-2023 Unified Strategic Workforce Development Plan (“State Workforce Plan”) featuring its vision of a high road economy which is defined by a set of goals to be achieved simultaneously, greater equity and mobility for workers, higher skills and competitiveness for employers, and long-term environmental sustainability and climate resilience for the state.<sup>21</sup> The CWDB followed up with Jobs and Climate Action Plan for 2030,<sup>22</sup> which identified three key factors that state policymakers should consider when implementing its climate policies and programs:

1. Labor should be considered an investment rather than a cost – and investments in growing, diversifying, and upskilling California’s workforce can positively affect returns on climate mitigation efforts. In other words, well trained workers are key to delivering emissions reductions and moving California closer to its climate targets.<sup>23</sup>
2. California can achieve greater social equity in labor market outcomes for disadvantaged workers and communities when policymakers pay attention to job quality. Identifying high-quality careers (i.e., ones that offer family-supporting wages, employer-provided benefits, worker voice, and opportunities for advancement) first, and then building pathways up and into such careers, is critical to ensuring that investments in workforce education and training meaningfully improve workers’ economic mobility.<sup>24</sup>
3. Deliberate policy interventions are necessary to advance job quality and social equity as California transitions to a carbon neutral economy, just as such efforts are required to reduce pollution, protect human and environmental health, and to safeguard communities from an already-changing climate.<sup>25</sup>

Finally, the CWDB’s most recent State Workforce Plan highlighted high road workforce standards as a mechanism to achieve high road interventions.<sup>26</sup> CWDB specifically advocated for payment of prevailing wages, skills standards, and levers which intervene in equity of job

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<sup>20</sup> California Workforce Development Board, Unified Strategic Workforce Development Plan: Strategic Planning Elements 2024-2027 (2024) p. 28 (hereinafter “2024 State Workforce Plan”), available at [https://cwdb.ca.gov/wp-content/uploads/sites/43/2024/01/DRAFT\\_Strategic-Planning-Section-2024-27-Version\\_ACC\\_ESSIBLE.pdf](https://cwdb.ca.gov/wp-content/uploads/sites/43/2024/01/DRAFT_Strategic-Planning-Section-2024-27-Version_ACC_ESSIBLE.pdf).

<sup>21</sup> California Workforce Development Board, California’s 2020-2023 Unified Strategic Workforce Development Plan, [https://cwdb.ca.gov/plans\\_policies/2020-2023-state-plan/#~:text=California's%20Unified%20Strategic%20Workforce%20Development.state%20workforce%20and%20education%20system](https://cwdb.ca.gov/plans_policies/2020-2023-state-plan/#~:text=California's%20Unified%20Strategic%20Workforce%20Development.state%20workforce%20and%20education%20system) (last visited Jan. 26, 2024).

<sup>22</sup> California Workforce Development Board, Putting California on the High Road: A Jobs and Climate Action Plan for 2030 (June 2020), available at <https://cwdb.ca.gov/wp-content/uploads/sites/43/2020/09/AB-398-Report-Putting-California-on-the-High-Road-ADA-Final.pdf>.

<sup>23</sup> *Id.* at p. ii.

<sup>24</sup> *Id.* at p. ii-iii.

<sup>25</sup> *Id.* at p. iii.

<sup>26</sup> 2024 State Workforce Plan at pp. 48-50.



access, including community workforce agreements and community benefits agreements.<sup>27</sup> To be consistent with, and implement, these recommendations, the Green Bank must take affirmative steps to avoid the historic practice of rejecting high road workforce standards to maximize contractor participation. The quantity over quality approach does not ensure compliance with the state's energy policies or workforce goals.

## **Conclusion**

In conclusion, SMART WSC and our 11,000 hard working members are proud to play a pivotal role in the fight against climate change and the pursuit of energy efficiency. Buildings, which consume a significant portion of the nation's energy, stand to benefit immensely from properly installed and maintained HVAC systems. However, current challenges such as poor installation practices, permit avoidance, and lack of enforcement are undermining efforts to maximize energy savings and reduce greenhouse gas emissions. Addressing these challenges requires a focus on permit compliance and a concerted effort to improve workforce quality through comprehensive state approved training programs and the adoption of high road workforce standards.

By restructuring rebate programs and implementing strong high road workforce standards, such as prevailing wages and skilled and trained workforce requirements, California can ensure that high-efficiency equipment is installed correctly, delivering on its potential to save energy and reduce emissions. Moreover, targeted actions like the creation of a statewide permitting database and enhanced enforcement of the Mechanical Acceptance Testing Program are critical steps in closing the gap between projected and realized energy savings. Together, these efforts can drive substantial improvements in both energy efficiency and climate resilience, while also creating high-quality jobs for skilled workers across the state.

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<sup>27</sup> *Id.* at pp. 48-49.