



January 21, 2022

Ms. Rajinder Sahota  
California Air Resources Board  
1001 I Street  
Sacramento, California 95814

**Subject: Comments on the 2022 Scoping Plan Update – Building Decarbonization Workshop**

Dear Ms. Sahota:

The undersigned organizations appreciate this opportunity to comment on the California Air Resources Board's (CARB) December 13, 2021 public workshop on Building Decarbonization to

inform the 2022 Scoping Plan Update. Our coalition consists of organizations that represent California's manufacturing, commercial, industrial, agricultural, and energy sectors. We are committed to working with CARB, other state regulatory agencies and various interested stakeholders to implement cost effective policies and regulations that protect California jobs and the California economy while also working to meet the state's carbon goals.

Members of our coalition have proactively led the global business community in embracing technologies that reduce and directly remove greenhouse gases from the atmosphere, including technologies targeting carbon emitted in the course of building use. California's business and industry partners have consistently responded to the call for carbon emissions reductions making significant investments of both human and financial capital to help California achieve its climate policies, while simultaneously retaining its place as the world's fifth largest economy.

The continued success of such efforts will require a more robust discussion on how the state intends to decarbonize the commercial and industrial sectors of the economy. While California's building inventory accounts for almost 25% of the state's total GHG emissions, much of the focus on building decarbonization is exclusively on methods and strategies to reduce emissions from residential buildings. Attention to the methods and strategies along with the broader challenges for commercial and industrial buildings were largely omitted from the December 13<sup>th</sup> workshop presentations and panel discussions.

As the state has signaled tight deadlines for its decarbonization activities - some as soon as nine years from now – CARB's future efforts in this area would be better positioned for success by scheduling future workshops that speak directly to the state's policy goals, implementation plans and related cost estimates for commercial and industrial sectors. Before CARB undertakes a GHG emission reduction policy as complex as multi-sector building decarbonization, the agency must first examine the commercial and industrial application of its residential strategy. The challenge of decarbonization for California's business and industry is significant, and in certain applications will be completely infeasible. These discussions are necessary for California's commercial and industrial employers and our workforce to effectively plan for future financial investments in an increasingly complex regulatory climate.

We request that CARB immediately identify its policy objectives and goals for building decarbonization in California's commercial and industrial sectors in the 2022 Scoping Plan Update.

### **Decarbonization Strategies Need Diversity**

CARB's workshop presentation noted that seven strategies have been identified to achieve the state's building decarbonization objectives, including:

1. A low-carbon electricity grid;
2. Load management;
3. Energy efficiency;
4. Building electrification;
5. Low-global warming potential (GWP) refrigerants;

6. Distributed generation, and;
7. Renewable gas.

However, the workshop only presented an in-depth discussion on a singular strategy – building electrification.

A singular focus on electrification is unwise, and largely ignores the related energy supply challenges already facing California. It has been noted in previous workshops that the state faces a potential tripling of electricity demand for a future of fully electrified homes and a wholesale transition to zero-emission vehicles. Electricity reliability threats exist now and are becoming more severe due to escalating requirements for procurement of renewable energy, increasing wildfire risk, prolonged drought impacts on hydroelectric generation, complete decommissioning of nuclear power and a massive shift away from natural gas.

Restoring and maintaining electric grid reliability under this scenario will require an unprecedented buildout of solar, wind, electricity storage, transmission, and distribution infrastructure. These infrastructure costs will not be borne by the State of California but will be paid for by ratepayers (residential, industrial, commercial and agricultural). The unprecedented expansion of electric infrastructure envisioned by CARB is further complicated by the lack of flexibility in California's environmental regulations, specifically the California Environmental Quality Act (CEQA). Absent substantial streamlining of the environmental review process for future electrification and related energy projects, California will experience more frequent and prolonged periods of diminished electric grid reliability.

Building electrification to the extent envisioned by CARB will further compromise a grid that is already severely generation-constrained during peak electricity usage periods when generation from solar and wind assets is diminished. Furthermore, solar and wind-generated electricity alone are not capable of meeting a surge in demand during fall and winter months. Given the well documented public health and safety and economic risks associated with power outages, California can ill-afford to disregard the need for a more comprehensive and balanced portfolio of generation resources, including natural gas, biofuels, and low carbon petroleum – especially as demand for these resources will persist well into the future and may actually increase because of a greater need to balance demand on the state's electric grid.

Both the California Energy Commission and the California Independent System Operator (CAISO) have acknowledged these supply challenges – the CEC estimates a potential shortfall for summer 2022 of 5,200 megawatts - and yet the state continues to advance seemingly unsustainable electrification policies.<sup>1</sup> We have stated in prior correspondence to CARB that the long-range planning nature of this Scoping Plan Update defies accurate predictions of how technologies will evolve to achieve carbon reduction targets. Advancing narrow, technology-forcing mandates and punitive compliance measures are more likely to stifle innovation and economic expansion, increase the demand for out of state electricity imports with higher carbon intensities, and encourage some businesses to relocate to less prescriptive jurisdictions,

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<sup>1</sup> [https://www.newsdata.com/california\\_energy\\_markets/regulation\\_status/californias-projected-energy-shortfall-grows-now-at-5-200-mw-by-next-summer/article\\_5fc97a8a-fc74-11eb-887c-079bb51f2941.html](https://www.newsdata.com/california_energy_markets/regulation_status/californias-projected-energy-shortfall-grows-now-at-5-200-mw-by-next-summer/article_5fc97a8a-fc74-11eb-887c-079bb51f2941.html)

promoting carbon emissions leakage. These outcomes would be unambiguously counter-productive.

Rather, as has proven to be the case in other areas of public policy, the key to success is consumer education and acceptance of the benefits of building decarbonization and the suitability of electric appliances in various residential and commercial applications. If we assume that CARB is correct and building electrification will indeed yield overwhelmingly positive economic and public health outcomes, then a targeted consumer education campaign should be enough to convince home and commercial building owners to make the desired changes, because they will see the benefit of those changes in the form of higher property values and lower operating costs.

### **Decarbonization Strategies Fail to Address Commercial and Industrial Building-Specific Opportunities**

The workshop's agenda and the staff presentation were limited in large part to a focus on the applications, methodologies, and strategies for residential buildings. The same level of build-specific analysis should be given to commercial and industrial buildings. The public discussion was further reduced to a handful of target appliances, including gas stoves, space heaters, and water heaters. CARB has deemed these applications to be "low-hanging fruit" in residential settings, but that same assumption does not apply to commercial settings, and yet issues unique to commercial and industrial buildings were relegated to the margins of the workshop discussion.

Building decarbonization, as it applies to residential properties, is not applicable to commercial or industrial buildings. California homes use gas and electricity differently than commercial or industrial buildings, both in terms of scale and specific applications. For example, California restaurants require natural gas appliances for a variety of cooking applications. Cooking over an open flame is a key component of many dishes as it is to the overall restaurant experience and aesthetic. California biotech industries operate natural gas-powered Bunsen burners for their critical, and oftentimes lifesaving, research and development work. Many commercial buildings also utilize combined heating and power (CHP) and combined cooling, heating and power (CCHP) systems to increase energy efficiency by using energy that would otherwise be lost as waste heat. These "distributed generation" systems provide the added benefits of reducing electric grid load and ensuring a reliable source of power at a time when state and regional grid reliability is increasingly uncertain. As these examples illustrate, natural gas usage is woven into the fabric of many California industries, and for some, transition to all-electric infrastructure is ultimately impossible. Thus, commercial and industrial building decarbonization requires a separate focus and assessment of the viability of alternative electric technologies, especially in sectors that are dependent on the unique attributes of natural gas.

### **Decarbonization Strategies Need to Consider Affordability and Equity**

As California is required to maintain a balanced budget, it is critical that CARB fully elucidate the costs associated with statewide building decarbonization strategies. For example, during the workshop, the California Energy Commission stated that a conservative estimate to reduce building GHG emissions by at least 40% by 2030 is between \$2.9 and \$40 billion; they also acknowledged that this range likely underestimates the actual cost. It is imperative that the full cost of this program be completely transparent. A \$37 billion-plus range of cost estimates is unacceptable for investment planning purposes, much less informing critical regulatory decisions that will impact California taxpayers, renters, home and building owners, and businesses.

As was noted throughout the workshop by many of the panelists, California is in the midst of an unprecedented housing affordability crisis. The most recent data presented by the Legislative Analyst's Office (October 2021) shows that the average home price in California has risen by 21% over the course of the last year. As of November 2021, the Department of Finance lists the median price of a single-family California home at \$782,480. Any California policy initiatives that can impact housing affordability must be designed to reverse this unsustainable trend, not make a bad situation worse. In this context, workshop panelists' estimates of the additional cost to use all electric appliances in the average home – which ranged from \$25,000 to \$75,000 – are deeply concerning, especially absent information on how the state will make the cost of increasingly electrified houses more affordable through incentives, rebates or other mechanisms. Additionally, though not addressed during the December workshop, it can be reasonably assumed based on square footage alone that the cost to the average commercial building would be substantially higher than these residential estimates. Just as California residents who aspire to home ownership are looking to other states with substantially lower housing costs<sup>2</sup>, businesses that can relocate will have greater incentive to do so. Others may simply shut down. As noted above, this trend undermines achievement of California's climate policy goals because it would result in economic and carbon emissions leakage that diminish or negate in-state emissions reduction benefits.

While increased housing costs—including the cost of retrofits and rising utility bills-- are a burden to all Californians. Under aggressive retrofitting timelines, older, more affordable housing stock will face the largest retrofitting costs. Additionally, older units—which are more likely to utilize natural gas appliances—will likely see large increases in utility bills as Californians with greater means transition away from natural gas, diminishing existing economies of scale and leaving those least able to afford expensive new electric technology to cover the cost of maintaining natural gas distribution infrastructure. This cost-shift will also be borne by commercial and industrial ratepayers who do not have the ability to transition away from natural gas, and will also be responsible for a larger share of the costs of maintaining that existing infrastructure.

Before California commits to ambitious policies and near-term timelines, the state must first fully elucidate its plans for containing costs for homeowners, landlords, tenants and businesses.

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<sup>2</sup> According to an October 2021 poll sponsored by the California Chamber of Commerce, a majority of Californians who do not own a home report that they would move out of state to improve their opportunities to purchase a home.

Though many panelists stated that incentives, rebates, and other financing options would be necessary for a successful statewide building decarbonization effort—particularly to account for the large upfront costs of the electric infrastructure, appliances, and retrofits—the conversation lacked specifics. Charting an aggressive, technology-forcing course on building electrification without any consideration of cost impacts will have the unintended effect of souring public opinion on the policy, delaying investment in more energy efficient appliances and achievement of carbon emissions reduction goals from this sector.

## **Conclusion**

Our coalition views the 2022 Scoping Plan Update process and related public workshops as critical to charting a sustainable course on California's long term climate policies. Unlike previous workshops, the December 13 decarbonization workshop's narrow focus on electrification, residential homes, and a relative handful of appliances left many decarbonization strategies, alternative renewable fuels, and commercial and industrial considerations largely unaddressed. Building decarbonization initiatives will require strong policy and market signals to yield intended benefits without unintended additional negative impacts on the California economy, jobs and business operations. As a starting point, we urge CARB to conduct a more focused and balanced analysis on commercial and industrial building decarbonization and hold additional public workshops to take input on this analysis before the proposed 2022 Scoping Plan is released.

Thank you for your consideration of our comments. Our coalition partners look forward to further opportunities to engage with you, CARB staff, and other interested stakeholders as the 2022 Scoping Plan continues to unfold.

Sincerely,

**California Manufacturers and Technology Association  
African American Farmers of California  
American Forest and Paper Association  
Auto Care Association  
California Automotive Wholesalers' Association  
California Building Industry Association  
California Business Roundtable  
California Central Valley Economic Development Corporation  
California Cotton Ginners and Growers Association  
California Farm Bureau Federation  
California Fresh Fruit Association  
California Fuels and Convenience Alliance  
California Independent Petroleum Association  
California League of Food Producers  
California Metals Coalition  
California Restaurant Association  
California Walnut Commission  
Council of Business & Industries of West Contra Costa County**

**Farwest Equipment Dealers Association**  
**Industrial Association of Contra Costa County**  
**Industrial Environmental Association**  
**Nisei Farmers League**  
**Western Agricultural Processors Association**  
**Western Independent Refiners Association**  
**Western Plant Health Association**  
**Western States Petroleum Association**  
**Western Wood Preservers Institute**