

StopWaste is the Alameda County Waste Management Authority, the Alameda County Source Reduction and Recycling Board, and the Energy Council operating as one public agency.

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Chair Liane Randolph California Air Resources Board 1001 I Street Sacramento, CA 95814 RE: Comment Letter on Draft 2022 Scoping Plan Update Dear Chair Randolph:

We appreciate the opportunity to comment on the California Air Resources Board's Scoping Plan for AB 32 to reduce emissions aligned with the state's goals.

StopWaste is a local government joint powers agency that supports our 17 Alameda County member jurisdictions with climate action planning, administers energy efficiency programs through the Bay Area Regional Energy Network (BayREN), and leads SB 1383 implementation in Alameda County. Over the past decade, we have observed emerging trends from on-the-ground implementation of environmental programs in our communities that can inform state-level greenhouse gas (GHG) reduction strategies.

CARB has been a global leader, taking unprecedented steps and innovating approaches to address the climate crisis in CA. We believe it is time again to boldly set a vision and course that aligns with the magnitude of the transformations needed. Page 10 of the Scoping Plan observes that "whole-of-society changes [are] needed." We completely agree with this recognition and encourage CARB to lean into this approach. The document acknowledges that the proposed scenario and its list of actions do not deliver a fossil fuelfree society by 2045 and it relies on untested, undeveloped, and expensive technologies of carbon capture and storage to make up the difference.

We generally agree with the strategies and actions listed in the plan, and also we believe that the list is incomplete. First, the aggressive shift towards all-electric vehicles and buildings, powered by a modern and reliable renewable energy grid that CARB has described in the Scoping Plan is vital towards achieving our carbon neutrality goals. Additionally, the inclusion of Natural and Working Lands in the plan and acknowledgment of the benefits of healthy soils in carbon sequestration is a real step forward. However, the focus on cost effectiveness as the primary criterion does the plan a disservice, and we propose using alternate methods of evaluation for the strategies. We believe a more inclusive approach is the only way to reach carbon neutrality. We also encourage CARB to establish ongoing communication channels with local governments to inform and implement the Scoping Plan. It is essential to allow adequate time for local governments to engage in plans which impact them directly, particularly when the State is relying on local implementation. Our comments fall into the following related recommendations:

- 1. Transform the economy instead of inserting technologies into broken economic systems
- 2. Choose economic indicators that measure equitable progress
- 3. Account for all leakage comprehensively and consistently to open up economic opportunities
- 4. Emphasize energy efficiency as a critical strategy
- 5. Work with local communities within their contexts and priorities
- 6. Develop a collective understanding of the unique role of each level of government

**1. Transform the economy: Discerning between scaling technologies vs. transforming systems.** Scaling currently available technologies within today's system will result in incremental change over time, while transforming the system itself requires positive disruptions that allow for systems to emerge that will better meet California's needs. We understand that the projections and GHG modeling exercise in the Scoping Plan were to determine whether there are known technological pathways to carbon neutrality. The Plan's analysis concludes that it is impossible to reach carbon neutrality by 2035 (or even 2045) without aggressive mandatory adoption of current technologies and/or reliance on future technologies not yet developed which are projected to be available in the second half of the century (after 2050). We agree that leaps of innovation will be required to get us to our goals, and bold innovations in program design beyond the traditional incentives, as well as other creative market transformation interventions, will be necessary to scale the technologies listed in the Scoping Plan. Creating the conditions for transformative innovations is qualitatively different from technology-scaling strategies. We encourage CARB to invite collaborators to co-create these new types of interventions.

**2. Expand on economic indicators: GSP alone is an inadequate measure of economic vitality**. The Scoping Plan makes a compelling case that climate action is economically viable by analyzing its impact on Gross State Product (GSP), a state-level equivalent of Gross Domestic Product (GDP). While this helps justify certain technologies, and shows that many are cost-effective on this basis, assuming that GSP is the primary measure of economic progress can undermine other strategies. GSP misses key indicators of wellbeing and values all economic activity, including that which is at odds with societal health or activities that may worsen climate change. Emerging models offer more sophisticated measurements of economic equity and quality of life. Examples include metrics of economic equity (e.g. Gini coefficient, income disparity) or wellbeing indicators (e.g. Wellbeing Economy Alliance adopted by New Zealand, Iceland, Scotland; Genuine Progress Indicator adopted by Maryland).

Relying on GSP alone can create an artificial conflict between economic and environmental goals. We acknowledge that many environmental actions have a positive impact on GSP, however, there are climate action solutions that will create equitable economic prosperity and increase quality of life without increasing GSP (for example, a robust and unmonetized sharing economy). Reconsidering our criteria could open doors for strategies that may have been disregarded because they were deemed not cost-effective. **We request that all known possible GHG reduction strategies be shown** with a discussion of why they were omitted from the scenario. With the possibility of a different economic framework in mind, these may be vetted anew for viability.

We suggest CARB reconsider the EJAC recommendations, including <u>NF25-NF33</u> which describe building decarbonization measures, listing many measures that we work on at StopWaste with our member agencies. If different economic conditions would make the EJAC omitted strategies cost-effective, please explain clearly what those conditions would be. We recognize that CARB may not have authority to create those conditions – a description of prerequisite conditions would not commit CARB to specific actions to create those conditions. Working collaboratively with local governments and other state agencies with defined common goals would improve the Scoping Plan.

3. Apply concerns about leakage consistently: Account for embodied carbon and out-of-state manufacturing encouraged by our policies and our demand. We appreciate that leakage mitigation is considered throughout the Scoping Plan (e.g., p. 79). It is critical to incorporate scope 3 (and beyond) emissions, considering the global scale at which GHG emissions function, and AB32 legislation's required mitigation of leakage. In addition to existing fossil-fuel emissions sources relocating outside of California, leakage should include manufacturing we induce. Page 37 concludes that life-cycle inventories would be excluded citing IPCC standards, lack of regulatory authority, and data inaccuracies. Page 38, however, recognizes the critical importance of working beyond borders for California to optimize its impacts. While we agree with the intent to track out-of-boundary GHG reductions, it would be inconsistent to take credit for out-of-boundary reductions without taking accountability for our contribution to out-of-boundary emissions. Our policies should recognize when in-state reductions (e.g., solar PV electricity) come at the expense of out-of-state emissions (e.g., PV and battery manufacturing). Similarly, while we want to encourage energy-efficient infill building projects, all construction has significant embodied carbon from the manufacture of construction materials. Reducing embodied carbon (as proposed by AB 2446 in this legislative session) does not undermine such construction and presents opportunities to regionalize and decarbonize building material supply chains, creating additional economic benefits.

We encourage CARB to estimate these additional forms of leakage related to our imports, as a Californiafirst economic development strategy. The practice of embodied carbon accounting is growing and could support more comprehensive strategies in California – even if supplemental to the IPCC-based inventory. (See examples from Oregon, the UN Sustainable Development Goals Progress Report, and local CAPs in California's cities.) Accounting for emissions from imports allows for more integrated whole-of-economy solutions. It enables onshoring clean and circular economy jobs to count as an impactful GHG reduction strategy. Our recent proposal to the U.S. Economic Development Administration that was selected as one of 60 national finalists for the Build Back Better Regional Challenge presented in-state manufacturing strategies that would simultaneously reduce carbon, accelerate housing production, and create diverse and inclusive jobs and entrepreneurship in California. This multi-benefit approach only emerged when considering out-of-boundary emissions.

California has the opportunity and responsibility to lead the economic transition toward carbon neutrality globally, using its influence over markets through our large customer base and demand. Even if California eliminated or captured all the emissions in its current inventory, if the rest of the world is unsuccessful at similarly reducing emissions, we will still suffer costly climate impacts related to wildfire intensity, extreme heat, drought, and sea level rise. We recognize that the IPCC protocol was developed to prevent "double counting" of reductions. However, we should use data to empower effective action, not to confine ourselves to less optimal choices. Rather than focusing solely on GHG reductions that we can "claim" as being "attributable" to California, we should focus on contributing actions that leverage our unique position in global markets to transition toward carbon neutral systems holistically.

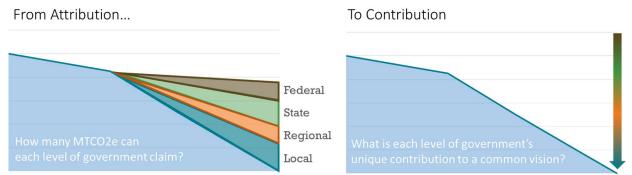
Before committing to investments in carbon capture technologies that delay reducing the carbon/pollution intensity of manufacturing or the closure of fossil fuel power plants, we encourage CARB to reconsider accounting frameworks to better enable our state to play the powerful role it could in global technological advances. Motivating our suppliers and trade partners toward greater adoption of clean technologies will spur global investments in research and development, catalyzing shifts in other connected markets and yielding compounding rates of global GHG reduction in return for our strategic investments and policies.

**4. Energy Efficiency is still critical.** Just as the scoping plan notes that for transportation, VMT must be reduced (p. 154) and modes of transport must be shifted away from single occupancy vehicles to meet goals, decreasing energy use through efficiency is a first step towards reducing GHGs from the built environment. The Proposed Plan still relies on fossil fuels (e.g., peaker plants) to provide electricity for the growing demand of EVs and electrified buildings in 2045. Reducing energy demand first will require less new renewable energy infrastructure to be built. Building envelope improvements provide co-benefits,

such as reducing costs, improving health, comfort, and quality of housing. While energy efficiency is included in the Strategies for Achieving Success on p. 163 and in Appendix F, the impact and importance of building envelope improvements is largely missing from the narrative of the plan, focusing instead on the electrification of building appliances. For example, p. 141 cites indoor air quality benefits from the electrification of appliances but fails to mention energy efficiency and/or building envelope improvements. Since the priority of the plan should be to reduce fossil fuel use as much as possible (ideally entirely), energy efficiency must be viewed as equally a key component as electrification, so that we can reach 100% renewable energy faster and more cost-effectively through reduced electricity demand.

**5.** Work with whole communities: All solutions are applied in real places, with local, unique contexts that influence outcomes. Recognizing that "one size does not fit all" is key to successful implementation. To understand each place's specific dynamics, the state agencies must work with local governments and communities to develop the practice of place- and people-based solutions. We generally agree that the 13 actions listed in Appendix D are needed to achieve carbon neutrality within a local community. How these will happen, however, is highly dependent on local contexts. Appendix D describes how local action is important to meet the state's goals; however, to be effective it must also meet local goals. Solutions gain traction when they are grounded in real communities, and ecosystems. This approach goes beyond the current considerations of equity in the Scoping Plan – which includes Environmental Justice, "green jobs," and access to clean tech as consumers – and ultimately fosters economic self-determination. Page 123 notes that cost-effectiveness is measured as dollars spent to reduce MTCO2e. This approach limits holistic consideration and ignores the social/health benefits of emissions reductions that are likely to gain more buy-in for implementation. These benefits are discussed qualitatively, but it is time to account for them quantitatively as well in how we measure the cost of action (or inaction).

6. Deepen the understanding of each level of government: Collaborate with local and regional governments to clarify unique and best roles. One of the key needs we see in the next phase of climate action is greater coordination between and within levels of government. We have seen local governments use the "wedge graph" that allocates emissions reduction to actions taken by each level.



This framing results in an inefficient use of resources creating a disjointed patchwork of efforts and duplication. Instead, we must shift to a whole-of-government approach that includes an agreed upon common vision for all levels and then identifies each one's role to realize the vision. All sectors and scales of government struggle with historical siloing of our goals. Specialized agencies were established to address specific problems, yet now it is increasingly evident that fragmentation stands in the way of effectively addressing complex issues like climate change. Page 10 again states the intent to take a whole-of-government approach, which we strongly support. When fully practiced, this means all agencies and departments - not just those with climate-related responsibilities and programs - are working toward carbon neutrality. We encourage CARB to work with other State agencies, including the Department of Finance to evaluate areas of potential unintended conflicts and opportunities for synergies to spend State funds most effectively.

We invite opportunities to connect local governments with state agencies for sustained collaboration to explore this topic further, and to clarify what each agency's unique and best contribution is. Though the findings will come after the engagement process, we anticipate that the opportunities and roles will generally fall into the following categories:

## <u>State</u>

- Focus on backbone of carbon-neutral infrastructure including electricity transmission and distribution networks compatible with large-scale decarbonization.
- Send market signals with phase out plans for fossil fuel vehicles and appliances and update statewide building codes. Restrictions on products (e.g., energy performance, extended producer responsibility) need to be done at the state scale.
- **Provide funding and resources** to enable local implementation that is context-dependent, integrated with other local priorities, and builds capacity and equitable self-determination within communities.
- **Remove obstacles to local implementation** including sunsetting requirements to conduct GHG inventories which are resource-intensive and distract from implementation. Work with local governments to support development of locally appropriate performance measures.
- **Coordinate among different state agencies** on implementation of all elements of the Scoping Plan, including funding and breaking down barriers between separate climate efforts and integrating climate throughout all state agencies. One example is the siloing of funding for energy efficiency separate from renewable energy and solar. The Scoping Plan should explain how the state will coordinate on integrating these efforts.
- Support climate resilience and adaptation projects, such as wildfire mitigation efforts on state lands or those that cross local government boundaries. Similarly, assist with cohesive strategies to address sea level rise, drought, and other climate change impacts that will be felt across the state and will require collaboration among local, regional, and state governments to address, as they do not stop at jurisdictional boundaries.

## **Regional**

- Coordinate job-housing and land use planning across neighboring jurisdictions to reduce VMT.
- **Optimizing public transit** since an effective and convenient multi-modal (including buses, trains, bike share systems, and more) transit system that reduces the need for single-occupancy vehicles cannot stop at jurisdictional boundaries.
- Facilitate efficient funding distribution from state sources to local implementers.
- Develop and support markets that will usher in technologies needed to meet goals.
- Advance regional economic strategies that are aligned with global carbon neutrality and develop resilient employment and workforce opportunities.

<u>Local</u>

- **Reconcile climate priorities with other local priorities** such that implementation is welcomed, and advances better economic and social outcomes
- **Conduct community-building engagement** with local homeowners, property owners, and businesses to understand nuanced barriers to technology adoption and inform more effective program design
- Design local public spaces with and within their communities
- Coordinate workforce development efforts supportive of local and climate priorities
- Develop locally appropriate performance measures in coordination with CARB and Air Districts

**Conclusion:** We appreciate CARB's extensive process to chart a path toward carbon neutrality. We encourage CARB to take this opportunity to embrace a truly inspiring vision of what a carbon neutral California can look like. The vision can be one that improves the quality of life for all Californians, helps to undo past harms and disproportionate impacts on historically oppressed and excluded populations, and creates economic systems that serve communities (inverting the current tendency for communities to primarily serve the economy as measured in GSP). If our vision is limited to clean technologies, we could see a future where all Californians have heat pumps and electric vehicles but are still unable to afford the energy to power these, or even unable to afford adequate housing and basic necessities. We believe the state can create a bigger, healthier vision than this. Articulating that vision and having it guide our climate work is critical to galvanizing all the parties that will need to collaborate to achieve a thriving and carbon neutral California.

Sincerely,

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Timothy Burroughs Executive Director, StopWaste