March 9, 2022

Liane M. Randolph, Chair
California Air Resources Board
1001 "I" Street
Sacramento, CA 95814

RE: Environmental Justice Recommendations for 2022 Scoping Plan

To the California Air Resources Board,

As the California Air Resources Board (CARB) develops the 2022 Climate Change Scoping Plan, a blueprint that will guide the next twenty years of climate action, we urge you to put California on the path to a full coordinated phase out of fossil fuels, and ensure that the communities most harmed by the fossil fuel industry benefit from the transition to clean, zero-emissions energy.

The undersigned organizations and individuals call on CARB to develop a 2022 Scoping Plan that prioritizes the following four recommendations:

1. Conduct a **robust public health equity analysis** that is embedded into and informs the evaluation, selection and prioritization of various Scoping Plan strategies and policies.
2. **Prioritize direct emission reductions** at the source that amount to at least 40% below 1990 levels by 2030 and at least 80% to 92% below 1990 levels by 2045,[1] which includes a fully coordinated **phase out of oil and gas extraction by 2035, oil refining by 2045**, as well as a rapid transition to a **zero-emission transportation system by 2035**.

[1] Achieving Carbon Neutrality report, p. 26 / Figure 4 -- E3 modeled (without carbon capture) direct emission reductions of 80%, 87%, and 92% by 2045)
https://ww2.arb.ca.gov/sites/default/files/2020-10/e3_cn_final_report_oct2020_0.pdf

3. **Eliminate or minimize reliance on climate policy dead ends** including the use of market mechanisms such as cap-and-trade, and engineered carbon removal such as Carbon Capture, Utilization and Sequestration (CCUS), and other purportedly "carbon neutral" technologies which facilitate continued use of fossil fuels and pollution in disadvantaged communities.
4. **Conduct equitable implementation and provide investments in community-driven solutions** that ensure the communities most harmed by the fossil fuel industry are first in line to benefit from the transition to clean energy. Our proposed policies can and should be implemented in coordination with other state agencies in a way that deeply benefits disadvantaged communities without increasing economic and health burdens.

If the 2022 Climate Change Scoping Plan is to comply with key statutory mandates (SB 32, AB 398, AB 197), it must prioritize direct emission reduction strategies at the sources of pollution that are informed by a robust health equity analysis, benefit disadvantaged communities and avoid reliance on climate policy dead ends.

Our communities live alongside the state's largest polluters, including oil refineries, dirty gas-fired power plants, warehouses, transportation hubs, and industrial agriculture. From the neighborhood oil fields in South Los Angeles to the backyard refineries in Richmond, we breathe the consequences of CARB's climate policies. The dangerous impacts of both climate change and pollution have fallen most heavily on our communities: communities of color, particularly Black, Brown, Indigenous, Asian, Pacific Islander, and low-income communities.

For decades, CARB has failed to effectively regulate industrial pollution in our neighborhoods, letting big polluters off the hook through cap-and-trade accounting gimmicks like allowance banking and offsets. These do not effectively mitigate climate change, and have resulted in increased pollution in environmental justice (EJ) communities like Richmond. Now, the oil industry is lobbying for billions in public subsidies to build ineffective Engineered Carbon Removal and harmful CCUS technology on fossil fuel infrastructure. CCUS will further extend the life of otherwise defunct oil refineries, dirty gas-fired power plants, and other polluting industrial facilities. Capitulating now to legacy polluters not only guarantees that already overburdened communities will continue to be environmental sacrifice zones, but also worsens the climate crisis for all Californians. CCUS will increase health harms to our communities at every stage of capture, transport, and storage of CO_2, compounding the existing health harms to low-income communities and communities of color, where oil infrastructure is currently placed.

We are at a critical juncture. We have experienced the worst drought in a century, the hottest summer after the hottest decade ever, and record wildfires. The most recent IPCC report[2] makes it clear that **unless we make steep reductions in greenhouse gas emissions now**, we will exceed global warming thresholds of 1.5°C and 2°C. The decisions that the California Air Resources Board makes now will determine whether we have a safe and healthy future for all Californians.

1. ROBUST PUBLIC HEALTH EQUITY ANALYSIS

A robust public health equity analysis must be embedded into and inform each strategy of the Scoping Plan as was decided in 2017 through a CARB resolution to ensure proposed policies are implemented in a way that does not increase burdens to disadvantaged communities, but rather yields benefits. This is a necessity dating back to the 2017 *Resolution 17-46,* which requires CARB to work with CDPH, OEHHA, and other state agencies to establish a timeline and an action plan to better integrate health analysis broadly into the design and implementation of the State's climate change programs with the goal of

[2] Working Group I Contribution to the *Sixth Assessment Report of the Intergovernmental Panel on Climate Change: The Physical Science Basis*. (2021). https://www.ipcc.ch/report/ar6/wg1/.

maximizing health benefits.[3]

CARB is not in compliance with current legal mandates such as AB 197, which requires CARB to "consider the social costs of the emissions of greenhouse gasses", including "impacts to public health." AB 197 also requires CARB to "consider overall societal benefits including reductions in other air pollutants," that are intended to ensure climate policies do not further harm disadvantaged, low-income, and tribal communities. AB 32 mandates the design of a Scoping Plan "in a manner that is equitable, seeks to minimize costs and maximize the total benefits." Implementation of the AB 617 Community Air Protection Program does not fulfill these requirements or address the specific need for health equity analysis in the Scoping Plan prior to scenario design and adoption.

In order to comply with these legal mandates and to ensure maximum health equity benefits of climate solutions, the development of the Scoping Plan and each of its strategies should be informed by robust and comprehensive public health equity analyses done prior to the development of the Scoping Plan, instead of modeling projected health impacts after the policy or program is developed. These additional public health equity analyses should serve to inform the CARB Board and the public about the public health threats, benefits, and costs of the potential strategies within the Scoping Plan, and should be relied upon to select the mix of strategies that will best advance health equity and positive environmental justice outcomes. If a policy has the potential to harm a community, that policy should be off the table or, at minimum, CARB should be responsible for mitigating harm.

Additionally, CARB's Scoping Plan public health and social costs analysis falls short in several ways and does not meet its mandate under AB 197 to consider "adopting rules and regulations…to achieve emissions reductions beyond the statewide greenhouse gas emissions limit and to protect the state's most impacted and disadvantaged communities."[4] In addition to the absent social cost analyses described in previous comment letters submitted by the California Environmental Justice Alliance,[5] none of CARB's modeling in PATHWAYS includes monetized damage estimates associated with public health burdens borne by frontline communities. This is especially important for vulnerable communities given the disproportionate pollution burdens they face.

In addition, the following recommendations are based on the future plans outlined in OEHHA's presentation on February 8, 2022[6] to improve public health measurements moving forward. CARB must:

a) Implement a **statewide data standard for all emission sources** that would collect community-level data for mobile and stationary sources, improve accessibility for criteria pollutant and air toxics emissions data, and add finer scale criteria pollutant and air toxics emissions data for the oil and gas sector.

b) Collect annual data on **facility- and company-specific allowance allocations, offsets credits, and trading patterns** and make this information publicly available. During the Scoping Plan process and in evaluating alternative scenarios, CARB must conduct further analysis and evaluation on industrial sectors such as refineries and hydrogen plants to determine which facility-specific emissions increases are the result of the state's reliance on cap-and-trade.[7] CARB

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[3] The 2017 Climate Change Scoping Plan Update Resolution 17-46 pg. 10 https://ww2.arb.ca.gov/sites/default/files/barcu/board/res/2017/res17-46.pdf

[4] California Health and Safety Code Section § 38562.5.

[5] California Environmental Justice Alliance, *May 20, 2021 Comment 1* and *July 9, 2021 Comment 3*.

[6] Office of Environmental Health Hazard Assessment (OEHHA), Impacts of Greenhouse Gas Limits Within Disadvantaged Communities: Progress Toward Reducing Inequities, Feb. 2022. https://ww2.arb.ca.gov/sites/default/files/2022-02/OEHHA%20Impacts%20of%20GHG%20Emission%20Limits%20EJAC_02_6_2021_OEHHA.pdf

[7] Table 2. Direction of Emission Changes at Facilities Near High-Scoring CES Communities Varies by Pollutant and Sector (2018 Compared to 2012 Emissions) indicates communities living around refineries and hydrogen plants have seen an *increase* in GHG and PM2.5 emissions. Office of Environmental Health Hazard Assessment Office of

must also increase the transparency in offset entity information by clearly delineating carbon offset projects with covered polluting entities.

c) Create **environmental and health equity metrics tracking and benchmarks** for EJ communities, disaggregated by race/ethnicity. For example, set the goal of reducing diesel particulate matter in the top 25% CalEnivroScreen (CES) communities by 80% by the year 2035, disaggregated by race/ethnicity.

2. PRIORITIZE POLICIES TO ACHIEVE DIRECT EMISSION REDUCTIONS

The table in Appendix A is a non-exhaustive list of priority sector-by-sector policies and associated equitable implementation recommendations for the Scoping Plan in order to achieve greenhouse gas emission reductions of at least 40% below 1990 levels by 2030 and 80% below 1990 levels by 2045.

Half of California's GHGs come from four large interconnected sources within the transportation system and fossil fuel supply chain: passenger light-duty vehicles, heavy-duty vehicles, fossil fuel refineries, and fossil fuel extraction. CARB has direct authority over getting to zero-emissions in these four sectors through direct controls and therefore the following policy recommendations should be prioritized in order to comply with key statutory mandates and meet 2030 GHG reduction targets.

Priority Environmental Justice Policy Recommendations for Direct Emission Reductions:

a) **Coordinated phase out of oil refining by 2045 and oil and gas extraction by 2035 as part of a managed decline of fossil fuels.**

b) **Transition to a clean transportation system with 100% zero-emission vehicles (ZEVs) by 2035 balanced with strategies, such as transit investments, that lower VMT by 30% by 2035.**

3. ELIMINATE OR MINIMIZE RELIANCE ON CLIMATE POLICY DEAD ENDS

By focusing on direct emissions first, CARB can and must reduce reliance or eliminate the need for market mechanisms and technologies that further enable pollution, such as cap-and-trade or CCUS on fossil fuel infrastructure.

The cap-and-trade program has not produced and will not produce meaningful emissions reductions, largely by design. As referenced in OEHHA's latest report, cap-and-trade is concentrating pollution in EJ communities[4]. Some sectors, including oil refineries and cement plants, are actually seeing increased emissions under cap-and-trade. Due to these findings on the deficiencies of the cap-and-trade program, CARB must not consider the program a direct emissions reduction measure under AB 197.

A robust accounting and analysis of the lifecycle greenhouse gas and health implications will also demonstrate the significantly larger benefits of direct emissions reductions relative to cap-and-trade, CCUS, and offset programs like the Low Carbon Fuel Standard (LCFS). Moreover, ignoring the full lifecycle greenhouse gas emissions, such as methane leaks associated with CCUS, may result in a failure to "minimize leakage," as required by AB197[8] by accounting for reductions in on-site carbon dioxide emissions in California but ignoring increases in overall greenhouse gas emissions outside of California. We are also gravely concerned by the state's lack of understanding as to the health and safety risks of

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Environmental Health Hazard Assessment (OEHHA), Impacts of Greenhouse Gas Limits Within Disadvantaged Communities: Progress Toward Reducing Inequities, Feb. 2022. p. 38 https://ww2.arb.ca.gov/sites/default/files/2022-02/OEHHA%20Impacts%20of%20GHG%20Emission%20Limits%20EJAC_02_6_2021_OEHHA.pdf

[8] California Health and Safety Code Section § 38562.

CCUS.These include the potential for mass casualty events from explosions of new liquefied CO_2 pipelines that are projected to be built from point source polluters to end points of Enhanced Oil Recovery for additional oil drilling, or supposedly "permanent" geological sequestration.

CARB must minimize or eliminate climate policy dead ends, including:

a) **Cap-and-trade and market loopholes such as offsets and free allowances.**

b) **Engineered Carbon Removal, such as CCUS technology, on fossil fuel infrastructure.**

c) **Alternative fuels to fossil fuels that exacerbate pollution through their production and consumption, including through their use in the production of "renewable" fuels.** This includes conventional biofuels, factory farm gas, and other polluting fuels considered by CARB to be "net zero" or "low carbon" fuels.

4. EQUITABLE IMPLEMENTATION

Policy recommendations alone will not address environmental justice concerns unless they are implemented in an equitable way. CARB should ensure equitable implementation by prioritizing funding to communities most harmed by the fossil fuel industry, which includes the urgent need for a robust safety net for fossil fuel workers and communities. Wherever CARB has authority over funding for programs, funding should be prioritized toward low-income communities and to supporting regenerative economic sectors which promote high road jobs and comitant employment pathways for impacted workers. In order to increase access to opportunities for disadvantaged communities, targeted investments are needed for community-driven strategies related to industrial sectors covered in the Scoping Plan. This includes equitable building electrification, youth opportunity transit passes, ecological carbon sequestration, and equitable workforce transition.

The Scoping Plan must also prevent disproportionate impacts. Specifically, under AB 32 and AB 398 , "(2) CARB must ensure that activities undertaken to comply with the regulations [climate policy] do not disproportionately impact low-income communities."[9]

Through prioritizing community-driven solutions and equitable investments, CARB has an opportunity to remedy the historic economic and social injustices causing the climate crisis, rather than merely replacing combustion technology with zero-emission technology, which alone is not an end to environmental injustices. We urge CARB to adopt the bold Scoping Plan that California needs, one that centers public health and environmental justice for all to meet the urgency of the climate crisis.

Sincerely,

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[9] California Health and Safety Code Section § 38562

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Appendix A: Table Summary of Direct Emission Reduction Strategies

Sector	Relevant Statutes	Proposed Policy	Direct Emissions Reductions (% or MMT)	Equitable Implementation of Policy
Transportation	AB 32, AB 197, SB 375	100% light-duty vehicle sales are ZEV by 2035. 100% medium- and heavy-duty vehicle sales are ZEV by 2035. 100% drayage trucks ZEV by 2030 30% VMT reductions by 2035 to get to 11% transit ridership. Increase MPO GHG reduction target to 25% by 2035.	28.5% GHGs from light-duty vehicles cut. 7.8% of State GHGs from heavy-duty vehicles cut.	Policy signals for transit investments to implement CAPTI and CTP. Increased funding for ZEV equity programs for disadvantaged communities. Increased SB 375 targets. Increased VMT reduction targets with policy signals to help with accountability. Ensure equity throughout the Advanced Clean Fleet rulemaking. Mandate truck retirement after a vehicle's useful life, and encourage fleets to transition trucks voluntarily even sooner.
Refineries	AB 197, SB 32, AB 32	Direct the state to plan, coordinate, and manage the phase down of oil refining by 2045.	7% of state GHGs cut.	By 2024, in collaboration with impacted workers and communities, adopt an interagency plan with regular milestones to manage the decline of California oil refinery production of gasoline, diesel, and other fossil fuels, reflecting California's plans to decarbonize transportation. Create a robust multi-year safety net for fossil fuel workers and impacted communities.
Oil & gas Extraction	AB 32, AB 398, AB 197, SB 32	Direct the state to phase out oil and gas extraction by 2035.	4% of state GHGs cut.	Adopt statewide comprehensive health and safety setbacks of at least 3200ft. for new and existing wells. Facilitate a mandated, managed phased decline of extraction. Ban rework permits & consider policies such as severance taxes to facilitate phase out.
Industrial	AB 197, SB 32, SB 596	Prioritize investments in clean innovative technologies to reduce process emissions and material emissions to reach at minimum 72% electrification & green hydrogen sources combined.	SB 596 calls for cuts in GHG emissions to at least 40 percent below the 2019 average levels by December 31, 2035 for the cement sector.	Channel investments into Research & Development, pilot programs, etc. to reduce maximum levels of emissions directly from both materials used and from the manufacturing process. Facilitate incremental industrial electrification to reach 100% clean energy sources by 2045, including through industry electrification via renewables and direct hydrogen combustion via dedicated clean Hydrogen pipelines (not biomass or RNG based). Ensure any switched fuels and new technologies/materials used do not increase local air pollution in disproportionately burdened communities. Apply best available control technologies to reduce pollution in the interim until 100% zero-emissions facilities are achieved. Start this transition in disadvantaged communities first.
Electricity	SB 100, SB 350, PUC 454.51(a), E.O. B-55-18	The Scoping Plan should support a target of no more than 30 MMT, as referenced in the CPUC's RESOLVE sensitivity analysis. The Scoping Plan should encourage additional analyses of deeper decarbonization such as a 15 MMT target.	17% of State GHGs cut.	The Scoping Plan should strongly support the CPUC and CAISO in locationally-targeted planning and procurement now to retire emitting resources, with priority for disadvantaged communities and those adjacent, such as the Los Angeles Basin and the San Joaquin Valley.

Appendix A: Table Summary of Direct Emission Reduction Strategies

Agriculture (incl. Pesticides)	AB 32	Directly reduce emissions from pesticides and their application, especially those chemicals identified by Californians for Pesticide Reform and Pesticide Action Network as priority.[10] Transition large-scale, resource-intensive, and polluting factory farms to agroecological models.	8% of state GHGs cut.	Emissions reductions from energy consumed by California's agricultural sector, including post-harvest processing, use of tractors and other farm equipment, and water import and irrigation. There should be no energy created from agricultural waste that creates additional greenhouse gasses or toxic emissions, such as with dairy digesters and bioenergy plants. Include an ambitious pesticide reduction target to 1) reduce the use of synthetic pesticides by 50% by 2030 and 2) reduce the use of hazardous pesticides by 75% by 2030, starting with organophosphates, fumigants, paraquat and neonicotinoids.
Buildings (Residential & Commercial)	SB 350, AB 197, SB 32	Transformative and comprehensive energy efficiency upgrades, prioritizing low-income communities and disadvantaged communities. 100% sales of electric appliances by 2030. All gas end uses should be retired by 2045.	11% of state GHGs cut.	Ensure that the Building Energy, Equity and Power (BEEP) Coalition's Energy Justice Framework statement[11] & Listening Sessions report's recommendations[12] & comment letters[13] are incorporated into the Scoping Plan. Ensure the $922 million proposed in the Governor's January budget is adopted to go toward a new CEC Equitable Building Decarbonization program for incentives and a direct install program targeted toward low-income residents to provide heat pumps for cooling, energy efficiency, and building insulation and sealing. This program must enable holistic building upgrades, offer inclusive household eligibility by prioritizing those most vulnerable, engage in community partnerships and effective state and local coordination, and include strong tenant protections and anti-displacement measures in order to be just and equitable. Furthermore, this program should be connected to other clean energy and efficiency programs where possible, such as the Low-Income Weatherization Program (LIWP), in addition to existing and emerging bill protections plans to ensure that low-income residents do not see even higher utility bills due to any home upgrades.
All Sectors	N/A	N/A	Total state GHG cut directly (not including Industrial) = 83.3%	N/A

Note: these numbers are estimates based on CARB GHG inventory data and E3 Achieving Carbon Neutrality report and some may be underestimated, but demonstrate significant reductions for each of these sectors and identify the clean energy replacements necessary

[10] Pesticide Action Network and Californians for Pesticide Reform comment letter to CARB for 2022 Scoping Plan Update Natural and Working Lands Scenarios Technical Workshop. https://www.arb.ca.gov/lispub/comm2/bccomdisp.php?listname=nwl-2021-scen-ws&comment_num=70&virt_num=69.

[11] Building Energy, Equity and Power (BEEP) Coalition, *Energy Justice Framework statement*, https://docs.google.com/document/d/1iSN-_TSSjKd9-9yXi7xNkvYgEC0-XDs4heDXTEmQs30/edit.

[12] Building Energy, Equity and Power (BEEP) Coalition Report and Recommendations to CARB, March 1, 2022 https://ww2.arb.ca.gov/sites/default/files/2022-03/BEEP%20Letter%20and%20Report_Equitable%20Decarb%20March%202022.pdf

[13] See Miller, Colin's comment letter responding to CARB's Decarbonization workshop on December 13, 2021, submitted on behalf of BEEP Coalition. https://www.arb.ca.gov/lispub/comm2/bccommlog.php?listname=sp22-buildings-ws