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To: Chair Liane Randolph
Board Members
California Air Resources Board
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From: [The Center for Progressive Reform](#)
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Re: Comments on the Draft 2022 Scoping Plan Update

We understand that crafting a clean economy transition plan for California that eliminates net carbon emissions is a daunting task. CARB must make decisions that will have significant, if not existential, impacts on public health, employment, housing, communities, and the economy. Other states like New York and Illinois are pressing ahead with visionary climate plans; to remain a leader in achieving an equitable transition to a clean economy, we encourage CARB to take a more ambitious path.

We offer a range of comments on the Draft 2022 Scoping Plan Update (the Draft Plan) that promote a vision and implementation strategies that embrace the urgent need for action and more explicitly foster improvements in well-being for the state's frontline communities.

Overview

The first section of these comments articulates several cross-cutting themes:

- The first cross-cutting theme is the importance of developing a holistic vision that meets the climate challenge and human needs. We urge CARB to meet the climate challenge with a faster timeline, to achieve multiple objectives with effective multi-sector coordination, to provide a just transition for workers, to foster environmental justice, and develop explicit equity standards. (p.3)
- The second cross-cutting theme is the critical importance of the EJAC and broader public engagement in plan implementation. (p. 4)

- The third cross-cutting theme is the vital role of public investments. We note that, unless the state supports a clean transition for low-income individuals or businesses, it will not achieve carbon neutrality. The Draft Plan should more deeply grapple with the needed scale of public investment and assess whether continued reliance on grant-based programs is a viable model for distributing resources effectively and equitably. (p. 4)

The second section of these comments emphasizes the need for a more detailed evaluation of past scoping plan implementation and the importance of including explicit evaluation in the implementation of the 2022 plan. (p. 5)

The third section of these comments turns to carbon reduction strategies. (p. 6) We make two preliminary observations.

- The first preliminary observation is that achieving justice will require intentional and explicit strategies in each sectoral context. (p. 6)
- The second observation is that, because the Draft Plan is relatively silent about the specific mechanisms for achieving proposed technological shifts, CARB should develop a supplemental plan that more clearly assesses the relative roles of planning, regulation, incentives, investments, and cap-and-trade. (p. 6)
- After these observations, we provide detailed comments on the following:
 1. Prioritize diesel reductions and develop an integrated approach to transportation. (p. 7)
 2. Prioritize renewables and avoid new natural gas and other alternatives that adversely impact overburdened communities, while enhancing environmental and economic equity. (p. 8)
 3. Increase ambition in the manufacturing and building sectors, including direct regulation phasing out fossil fuel use. (p. 10)
 4. To obtain the benefits of reducing fossil fuels, prioritize strategies that reduce fossil fuels and limit the role of carbon removal to the extent possible. (p. 12)
 5. Limit the role of cap-and-trade while prioritizing direct strategies for transitioning to a clean economy. (p. 12)

I. Cross-Cutting Themes

A. A Holistic Vision that Meets the Climate Challenge and Human Needs

The Scoping Plan articulates compelling principles that have informed the Plan. As we note more explicitly below, however, the principles are not always fully integrated into the discussion and strategies for key sectors. We highlight the following critical issues:

- **A Faster Timeline:** We urge CARB to establish the most ambitious timelines possible, using the Scenario 1 timelines, or close to them, wherever possible. Allowing existing uses, whether appliances, trucks, or industrial equipment, to continue in use until the end of their useful lives may be a less expensive strategy, but will extend our reliance on fossil fuels, with negative consequences for public health and the climate. To the degree that CARB has selected a slower timeline due to doubts about the speed of renewables and storage development, strategies to facilitate that deployment should be a top priority.
- **Coordination to Achieve Multi-Dimensional Objectives:** Steps to achieve carbon neutrality will have far-reaching impacts and should be designed to achieve multiple objectives in all the sectors they touch, including air quality, housing, economic opportunities, and urban design. Although the draft plan acknowledges the inherently multi-sector nature of climate mitigation, the plan should lay out a more explicit strategy for ensuring coordination and collaboration across sectors, agencies, and local and regional entities. A more coordinated strategy should address and respond to anticipated linkages between sector-specific actions.
- **A Just Transition for Fossil Fuel Workers and Community Economic Well-Being:** Transitioning to a clean energy economy will have pervasive cross-sector employment consequences as fossil-fuel jobs fade and new opportunities emerge, consequences that will not only impact individual workers, but communities dependent upon fossil fuel extraction or production. The Scoping Plan could more explicitly discuss and prioritize measures that would cushion the transition for existing workers and their communities, as well as measures that would provide training and high-quality opportunities to people and communities that have endured persistent unemployment and underrepresentation in high-road jobs
- **Prioritize Direct Emission Reductions in Environmental Justice Communities:** In light of the historic injustice that has caused existing inequities and disproportionate air pollution impacts, the plan should prioritize regulations for direct reductions of GHGs and air pollutants for all sectors, particularly for the industrial, transportation, and energy generation sectors. New regulations and

amendments to existing regulations should prioritize reducing health risks in overburdened communities and include measurable targets.

- **Prioritize Strategies that Do Not Cause or Maintain Harm:** Prioritizing strategies that reduce combustion would achieve the greatest health benefits for overburdened frontline communities. For example, mechanisms like CCS and biofuels could perpetuate and increase localized pollution and should be relied upon as a last resort. Where some harm is unavoidable, like new extractive mining for lithium to enable battery storage, that resource extraction should avoid environmental and cultural impacts on vulnerable populations and sensitive environments.
- **Equity Guidelines for Implementation:** CARB should commit to developing and applying equity standards for all implementation actions, including regulations, investments, incentives, and market mechanisms. Such standards should address environmental and economic equity and avoid negative and unintended consequences of emission reduction and carbon neutrality strategies.

B. Importance of EJAC and Public Engagement

The scoping plan should more clearly describe the role the EJAC will play in the plan's implementation, including their role in advising on planning, regulations, investments, and programs. CARB should also provide a budget describing the level of staff support, technical assistance, and resources for supporting the EJAC's ongoing engagement.

CARB should also describe how staff plans to engage with impacted and marginalized communities throughout the implementation process, and identify specific issues and regions where CARB needs to consult and collaborate with impacted communities, including Native Tribes.

C. The Critical Role of Public Investment

The Draft Plan acknowledges the need for state investment in a clean energy transition, recognizing that the private sector alone cannot accomplish the scale and nature of a necessary transition. However, the Draft Plan focuses more on the technologies to achieve carbon neutrality and does not sufficiently integrate the scale and process for supporting necessary measures. We write to highlight several essential elements.

- Extensive support for low-income individuals and businesses will be essential not only as a matter of justice but for the success of a clean energy transition. The scale of the climate challenge requires comprehensive investments in buildings, transportation options, and energy sources that will be unaffordable for many.

Without support, the transition will not happen, compromising the state's climate goals.

- Although the Draft Plan discusses the importance of public investment, the plan does not sufficiently acknowledge the profound scale of needed subsidies or potential sources of revenue. Energy efficiency, building decarbonization, distributed energy sources, new sustainable affordable housing, electricity rate relief for low-income households, support for industrial electrification, support for agricultural carbon reductions – all this and more will require unprecedented investment. A key attribute of climate action planning should be determining the level of government support needed for effective and equitable climate action. Because the cap-and-trade program should not be expected to provide sufficient revenue, the Draft Plan should tee up discussions about potential revenue sources, including new progressive income or corporate taxes.
- The current model for funding assistance, focusing on grants to applicants, is inefficient and potentially inequitable. The communities most in need of decarbonization resources are those least likely to have the time and expertise to apply and administer them. Agencies also spend considerable resources developing, implementing and assessing grant programs. A direct services model could identify the communities most in need, facilitate local engagement and planning to meet community needs, and then contract for decarbonization retrofits and investments.
- CARB should develop a strategy for coordinating investments in disadvantaged communities that achieve a range of community priorities and goals. For example, ZEV investments in low-income communities could be paired with investments in charging infrastructure, education about affordable clean energy, and efficiency improvements. Investments should reflect communities' unique housing, transportation, public health, employment, and other needs.

II. Evaluating Scoping Plan Strategies

A. Assessing the Current Portfolio Approach for Achieving the 2030 Target

The state's current portfolio of incentive programs and regulations has provided a good start. However, California is currently behind in achieving its AB 32 goal of a 40 percent reduction in emissions below 1990 levels by 2030. CARB needs to engage in a more comprehensive review of how existing initiatives from previous scoping plans have contributed to emissions reductions because it has been difficult for stakeholders in the current scoping plan process to understand, and for CARB staff to explain, the progress and impacts of current initiatives.

As part of this review, CARB should assess current initiatives' race and equity outcomes, including the impact of previous scoping plan strategies in overburdened communities.

In particular, to help determine the future role of cap-and-trade in the state's portfolio approach, CARB should conduct a full review of the cap and trade program. The analysis should address how the program has affected GHG and toxic emissions trends across the range of regulated sectors, pricing, trading, and allowance banking, and analyze how this strategy has contributed to the 2030 emission reduction goals. Although AB 398 does not mandate an analysis of the program until 2025, the analysis is needed sooner, and preferably before the 2022 draft scoping plan is finalized.

B. Ongoing Monitoring and Evaluation

CARB should improve monitoring, evaluation, and reporting of existing and new scoping plan strategies. Strategies that successfully lead to equitable reductions in GHGs and co-pollutants should inform future actions, and be implemented at a larger scale that benefits more low-income and disadvantaged communities.

At the start of every Scoping Plan process, CARB should provide a benchmark analysis of current scoping plan initiatives. This analysis should identify the data sources and metrics the agency used. It should also assess the initiatives' race and equity implications.

III. Carbon Reduction Strategies

We begin with two overarching observations. One is that centering equity will require intentional and specific strategies. The second is that CARB should commit to developing a supplemental comprehensive policy implementation plan for the technological shifts proposed in the Draft Plan. We then provide sector-specific suggestions.

A. Overarching Observations

Centering Equity: We commend the Draft Plan's commitment to centering justice in light of the unequal environmental and economic burdens experienced by frontline communities and the potential for a clean energy transition away from fossil fuels to alleviate those long-standing burdens. Stating the principles is, however, only the first step. Realizing these principles requires explicit and concrete regulatory and investment strategies, most of which are not addressed in the Draft Plan.

Supplemental Policy Plan for Achieving Technological Shifts: The Draft Plan maps needed technological shifts and identifies existing laws and regulations, but it provides little

insight into the more specific strategies the state will pursue, deferring the “rubber hits the road” choices. The state’s choice of mechanisms, including the relative roles of proactive planning, regulatory requirements, investments, incentives, and cap-and-trade, have critical implications for the plan’s likelihood of success and distributional consequences (considering both environmental and economic impacts).

Because the Draft Plan does not specify or evaluate implementation policies in any detail, it does not provide a holistic assessment of policy choices. The state appears to envision subsequent one-by-one policy decisions, many of which could occur within sector-specific silos. Under that approach, the state will fail to engage in a more holistic assessment of the state’s fundamental regulatory decisions, and stakeholders will not have the opportunity to offer their input on that larger regulatory vision.

We, therefore, recommend that CARB craft a supplemental holistic policy proposal that more clearly specifies the relative roles of regulations, incentives, financial support, investments, and cap-and-trade. We recognize that this proposal cannot occur within the Draft Plan’s timeline, but recommend that the Draft Plan commits to developing this comprehensive policy agenda.

B. Sector-Specific Comments

1. Transportation

We appreciate the Draft Plan’s recognition that many California communities are overburdened by transportation emissions and the fossil fuel extraction and refining infrastructure necessary to support our current gasoline and diesel-based transportation system. We offer the following comments:

- Heavy-Duty Vehicles: California has led the nation in requiring manufacturers and large purchasers to transition to ZEV technology. We offer the following suggestions for continued action:
 - In the transportation sphere, prioritize electrification of heavy-duty vehicles, including off-road vehicles, given diesel’s toxicity and the outsized role of black carbon in contributing to climate change.
 - We appreciate the commitment to prioritizing incentive funding for heavy-duty ZEV deployment in areas experiencing the worst air pollution and urge CARB to not only prioritize but expand funding for ZEV programs that would benefit disadvantaged communities.
 - As in the first scenario, set a deadline after which diesel vehicles will no longer be allowed to operate, coupled with buy-back programs to ease the transition.

- The Transportation Ecosystem: The transition away from fossil fuels should provide a reckoning with the land use and transportation modes of the past.
 - Continue to study the successes and weaknesses of SB 375 and impose stricter requirements for vehicle miles traveled (VMT) and more powerful incentives as necessary to catalyze effective regional housing and transportation planning and implementation. In that process:
 - Work with local communities facing mobility challenges to determine the transportation and land use mechanisms that would best meet community-specific needs, rather than imposing ready-made solutions.
 - Instead of focusing only on light-duty passenger vehicles, consider and prioritize support for new mobility options, including support for car-sharing, employer shuttles, enhanced public transit, and transportation options for walking and biking.
 - Limit incentives and funding for individual vehicles to low-income populations, and increase the funding available.
 - As in the first scenario, ban the use of light-duty vehicles powered by gasoline after a certain point in time.
 - Address the economic impacts of banning internal combustion engines on low-income residents through buy-back programs that are coordinated with accessible alternatives, including but not limited to zero-emission light-duty vehicles.
 - Facilitate coordination among the many agencies and jurisdictions with authority over land use, housing, and transportation, including the Strategic Growth Council, Department of Transportation, CARB, regional planning entities, and local jurisdictions.
 - Transit investments under the Climate Action Plan for Transportation Infrastructure (CAPTI) plan and CA Transportation Plan (CTP) should also increase VMT reduction targets and prioritize electrification of mass transit.

2. Clean Electricity Grid

We understand that building out the renewables, storage, and grid to support massive decarbonization is a daunting enterprise. Our comments are as follows:

- Recent [reports](#) suggest that CARB's model relies upon an increase in natural gas generation capacity. Building new fossil fuel infrastructure should be avoided at

all costs because it will lead to continued harmful emissions, both conventional and carbon, and create inevitable pressures to continue to use the capacity in the long-term, even if renewables, efficiency, and storage could provide less damaging substitutes. The process of capturing, transporting, and storing carbon itself requires energy, and will not reduce all of the co-pollutants associated with fossil fuel extraction, distribution, and combustion.

- The Draft Plan does not explicitly discuss the potential roles for distributed generation, including microgrids, on the one hand, and centralized generation, on the other hand. The Scoping Plan should affirmatively assess the potential for distributed generation, and should not unduly rely on utilities for renewables planning in light of utilities' vested interests in centralized and utility-controlled energy generation.
- The state's assessment of centralized versus distributed generation should fully acknowledge the benefits of distributed generation, including faster development, less energy loss in transmission, and some local reliability benefits.
- For larger-scale renewables investment, the plan should more explicitly analyze and identify the steps necessary to address the regulatory and permitting barriers to increasing solar, wind, and other renewable resources. A statewide renewables planning process, coupled with streamlining for consistent projects, may be necessary.
- Ensure equity in the transition from fossil-fuel energy generation:
 - We commend the strategies that target programs and support the communities with the greatest needs.
 - The state should support distributed energy investments and innovative financing mechanisms in disadvantaged communities, which do not have the resources to invest on their own and which most need to reduce their vulnerability to electricity price increases.
 - Ensure energy bill affordability for low-income households and disadvantaged communities through energy efficiency improvements, distributed generation, and financial support as needed.
 - Improve public health by requiring utilities to prioritize decommissioning existing fossil-fuel plants in overburdened communities.
 - Provide high-road opportunities for workers and communities impacted by the transition from natural gas.

- Ensure that high road electrification and decarbonization projects prioritize job access for local populations.

3. Sustainable Manufacturing and Buildings

- Oil and Gas Extraction and Refining

Oil and gas extraction and refining, and the fossil fuel consumption engendered by these fuels, causes the greatest health threats to California's overburdened communities and is the largest industrial contributor to the state's greenhouse gas emissions. Reducing emissions from this sector - without causing leakage - by reducing demand and developing renewable supplies should be a top priority.

- We understand that oil and gas extraction and refining cannot end overnight, but a faster timeline and coordinated plan for phasing out oil and gas extraction and refining is warranted. The current proposal allows fossil-fuel-dependent cars, trucks, and appliances to continue in use until the end of their useful lives, which extends the reliance on fossil fuels and the continued need for extraction and refining. As contemplated in Scenario 1, the state should pursue a more aggressive transition strategy, retiring fossil-fuel-dependent technologies through regulations and, for low-income individuals and industries, through financial support for zero-carbon alternatives.
- Given the degree to which some workers and communities currently depend upon oil and gas-based activities for their well-being, the state should coordinate with economic development agencies to identify measures to transition individual workers and fossil-fuel-dependent communities to new opportunities.
- Buildings:
 - Rather than allowing all appliances to be used until their "end of life," as was modeled in the Draft Plan, the state should work to establish incremental targets for retrofitting residential and commercial buildings to electric appliances, in combination with energy efficiency improvements, as expeditiously as possible.
 - Increase support and investments to enable low-income tenants and small property owners to transition to electric appliances and implement energy efficiency improvements.
 - Pair electricity retrofits with other housing improvement programs to maximize health benefits in disadvantaged communities.

- Develop regulatory protections so that housing retrofits do not jeopardize affordable housing or cause displacement.
- CARB should work with state housing and economic development agencies, as well as affordable housing advocates, to develop a coordinated financing and regulatory strategy that meets these objectives.
- **Non-cement/glass/stone/clay industries:** Because industry tends to produce concentrated emissions that impact overburdened communities, industrial reductions should be an important priority.
 - We support the Draft Plan’s goal of prioritizing “alternative fuel transitions in vulnerable communities first.”
 - Prioritizing vulnerable communities will not, however, make much difference if little electrification occurs. The chosen scenario contemplated zero to twenty-five percent electrification by 2030 in many industries and a wide range of targets by 2045. The first scenario included much more expeditious goals. The state should establish incremental targets that more expeditiously electrify the industry.
 - The state should require electrification based on incremental targets, and provide financing tools or direct support for industries that risk leakage or that do not have the resources for capital investments in renewable infrastructure.
 - The production and consumption of fossil-fuel alternatives, such as biogas, should not increase pollution in already overburdened communities.
 - The Draft Plan notes that energy efficiency improvements could lead to significant reductions, but appears to contemplate only voluntary programs, not requirements. The state should require industries to invest in feasible energy efficiency measures, coupled with financing mechanisms as necessary to prevent leakage or avoid industry shutdowns.
- **Construction and agricultural equipment:** Most construction and agricultural equipment uses toxic diesel fuels, which adversely impact outdoor construction and agricultural workers. To protect public health and reduce black carbon, the scoping plan should accelerate the electrification of this sector. The Draft Plan contemplates 25 percent electrification by 2030 and 75 percent by 2045.

Instead, the scoping plan should strive for objectives closer to those proposed for the first scenario: 50 percent by 2030 and 100 percent by 2035.

4. Limited Role for Carbon Removal

Although achieving net-zero emissions could require some degree of carbon removal, powerful vested interests are advocating for carbon removal, and CCS more particularly, as a way to continue business as usual, a path that will fail to achieve the clean air and public health benefits of transitioning away from fossil fuels.

- In order to maximize actual GHG and co-pollutant emissions, the scoping plan should prioritize eliminating fossil fuel use and permit CCS and other removal mechanisms only where eliminating fossil fuels is unachievable.
- The scoping plan should avoid massive investments in capture, pipeline, and storage where the use is expected to be temporary. In other words, building new natural gas plants with CCS would create the risk of stranded assets, which would generate a powerful pressure for the continued use of these investments. That would impede the impetus to eliminate fossil fuel use.
- Where carbon removal is necessary:
 - The scoping plan should prioritize carbon removal through ecologically sound management of natural and working lands.
 - In the event limited CCS is necessary, the state should commit to ensuring that storage infrastructure is not sited in communities that are already overburdened.

5. Cap-and-Trade's Limited, Complementary, Role

The Draft Plan does little to specify how it will achieve the transition ahead and does not indicate how planning, regulations, investments, direct incentives, and the cap-and-trade program will prompt the shifts necessary to achieve climate neutrality. When CARB turns to analyzing policy mechanisms, we suggest that cap-and-trade should play a limited role.

- **Direct reductions in overburdened areas.** Consistent with AB 197, CARB should require direct reductions, providing financial support as necessary to avoid leakage and facilitate the transition away from fossil fuels for those without sufficient means. As stated above, those direct reductions should prioritize overburdened areas, to maximize co-pollutant reductions and the overall social welfare associated with the state's climate policies.

- **Cap-and-trade has a limited role to play.** The cap can provide a backstop to limit emissions as regulatory mechanisms are developed and implemented. The carbon price can provide an ongoing price signal to prioritize the dispatch of renewable resources, improve the relative economic profile of renewable and storage investments, and provide some modest innovation incentives. And a modest carbon price has and should continue to provide the state with some of the revenue necessary for climate investments.
- **Develop policies focused on a long-term transition, not short-term cost benefits.** Cap-and-trade should not substitute for the affirmative planning, regulation, and investment (public and private) that is necessary for the economy-wide transition ahead. Some may argue that cap-and-trade is more efficient because it lets entities facing high reduction costs purchase allowances from those who can reduce more cheaply. But lowering costs is not the objective; the objective is transitioning to a clean economy. Some of the necessary investments may be expensive - more expensive than the steps that companies might choose in response to a cap-and-trade program's price signal, like purchasing offsets or relatively inexpensive allowances. What is critical at this juncture, however, is wise, long-term investments that are consistent with a carbon-free economy, not piecemeal, fragmentary actions that could delay and potentially impede a more fundamental transformation.

California has the opportunity to transition to a clean energy economy and can rise to that challenge in a way that improves the lives of all, and most especially the lives of those who have historically been environmentally and economically marginalized. California can continue to lead the world on climate action that is truly transformative, and we look forward to working with the state as it embraces this opportunity.