

Overarching Comments
Tribal nations / Indigenous communities must be engaged in the Scoping Plan process.
The scenarios must follow science and public health, not simply what is considered politically feasible.
Consider how we can capture areas of society not asked as scenario questions (such as the unhoused population) and how they are being affected, and how activities in the Scoping Plan can improve their living situation and health; making sure if there is legislation tied into the Scoping Plan that's already on the books, implementation language is looped in.
The PATHWAYS model should be pushed to match lived reality. Because PATHWAYS is limited, we should consider other tools. For example, a tool like the Regional Opportunity Index from UCD Center for Regional Change could help fill in information and analysis on factors like jobs/housing fit and implications for land use and transportation planning that should be shared across relevant Boards, Departments, and Orgs at the state.
Energy efficiency and demand levels are critical to evaluate and consider as independent variables. When the scenarios are modeled, E3/CARB should share the energy efficiency and demand assumptions for public transparency and reconsideration after discussion of policy options.
Tracking carbon emissions and pollution is critical for manufacturing and mobile sources. We need to assure all maintenance schedules in these sectors are properly documented and materials properly handled.
Anti-displacement strategies should underlie all of the responses.
Scoping Plan should advance a just transition to ensure that workers are not negatively impacted, and are involved in developing the solutions.

Scenario Question	Response and EJAC/EJ Community Comments
A. Carbon Neutrality Timeframe	
2030 target in SB 32: 40% below 1990 levels. 1. Increase ambition in 2030?	EJAC Response: We need to drastically increase our ambitions to cut co-pollutants. However, how carbon neutrality is achieved is more important than the date. We need to ensure that EJ communities continue to be in the conversations for the longer term (2045) issues. If we are to increase our ambition, we must also ensure that we prioritize a just transition. Since carbon is a co-pollutant, prioritize environmental justice and pollutants with adverse health impacts to meet the intent of AB 32, SB 32, and AB 197. California must rely on well-established and proven direct emissions reductions strategies and not carbon sequestration or offsets. In addition, California should not award carbon credits for out-of-state projects and ensure GHG emissions are not shifting out of state.
Science calls for carbon neutrality (CN) by mid-century.	EJAC Response:

2. Achieve CN in 2045, 2035, or other year?	We should increase ambition for the 2030 target. Emissions should be carbon <i>negative</i> by 2030. How carbon neutrality is achieved is more important than the date. There should be no reliance on carbon sequestration or offsets. The plan should rely on proven technologies that result in actual direct emissions reductions. Carbon neutrality should not be achieved through carbon offsets, CCUS (Carbon Capture, Utilization, and Sequestration), and other unproven and market-based “techno-fixes.” The goal should be to become carbon negative, not just carbon neutral.
B. Role of Engineered Carbon Removal	
Carbon capture and sequestration (CCS) 3. With fossil fuel combustion (e.g., industry, electricity generation, refineries). Yes or no?	EJAC Response: No engineered carbon removal should be considered for fossil fuels; although they may be considered for other sources that may not have immediate replacement so long as they do not have an adverse impact on frontline communities. We must also look at ecological solutions. Direct emissions reductions must always be prioritized. Worst-case scenarios must be included in any modeling of engineered carbon removal. A rigorous health analysis that includes workers and communities and their environments (with special consideration in the Valley and the Delta) should be conducted to evaluate the health impacts of using CCUS with fossil fuel combustion, and that should have Office of Environmental Health Hazard Assessment (OEHHA) support. For oil refineries and electricity generation, CARB should rely on significantly more investment in decarbonization and advancing energy democracy, and a fossil fuel phase out instead of combustion plus CCUS. CARB must reach decarbonization goals while decreasing emissions and protecting the economy. ECR (Engineered Carbon Removal) should be weighted as an unproven, expensive technology and be included as an option only after proven sequestration and reduction strategies have been fully explored. Considering the lengthy land use and risk assumptions inherent in ECR any publicly funded ECR strategy must be conditional on the Free, Prior and Informed Consent (FPIC) of locally impacted Environmental Justice communities in the impacted regions.
4. With industrial process emissions (e.g., cement). Yes or no?	EJAC Response: No. Direct emissions reductions must always be prioritized. Should CARB ignore the EJAC and use carbon capture, utilization and storage (CCUS) in the Scoping Plan, then it must include strict guidelines for such use (for reference, look at the EJ letter on CCUS). CCUS must not be used as part of any of California’s climate change or emissions reductions strategies. Funds should be spent on new processes and alternatives, rather than engineered carbon

12/1/21

EJAC Responses for the CARB Scenario Inputs

	removal approaches that prolong carbon producing technologies. Ecological solutions and less/no combustion must always be considered before engineered carbon removal. Worst-case scenarios must be included in any modeling of engineered carbon removal. A rigorous health analysis should be conducted to evaluate the health impacts of using CCUS with industrial processes, with Office of Environmental Health Hazard Assessment (OEHHA) support. (See the letter from EJ groups on CCUS.)
5. Is there any role for biomass for energy?	EJAC Response: There is no role for biomass for energy. Biomass should not be burned. Engineered carbon removal should not be in the modeling. Direct emissions reductions must always be prioritized. Ecological solutions and less/no combustion must be considered before engineered carbon removal. Worst-case scenarios must be included in any modeling of engineered carbon removal. There may be limited applications of biomass usage for energy in closed looped systems and / or in industries or rural/forested areas where clean energy is not practical, provided the following principles are met: there is no role for biomass conversion to energy in places or using methods that impact air quality in Environmental Justice communities and there is no role for policies that incentivize production of waste.
Refrigerant emissions and other sources of non-CO ₂ emissions may remain. 6. Compensate for these remaining emissions with direct air capture with sequestration? Or, what is the alternative?	EJAC Response: No direct air capture with sequestration. Our natural working lands can offer equitable solutions. For instance: building healthy soils, changing farming practices to better sequester carbon in soils; tree planting; and other natural lands management. CARB must ensure that these solutions do not simply amount to being equivalent to offsets. We recognize the need for natural lands management, but any ecologically based sequestration must be firewalled or kept separate from industry source reductions.
C. Carbon Free Electricity Grid ● SB 350 calls for a 2030 Renewables Portfolio Standard (RPS) of 60% ● SB 100 requires 100% retail sales of electricity be zero carbon by 2045	
7. Do we accelerate the 2030 RPS target?	EJAC Response:

	Yes, to the extent feasible and with the following guiding principles: any changes need to focus on the community impacts and equity—the most impacted communities should own and benefit from the changes, prioritizing just transition, and adopting the No Combustion Scenario in the SB 100 Joint Agency Report. However, we also recognize that affirming a year is difficult since there are so many assumptions on how they are achieved, such as what technologies and fuel sources would be used.
8. What year do we have a zero carbon electricity grid?	EJAC Response: By 2035 at the latest. However, the transition to a zero carbon electricity grid must prioritize distribution of benefits to the most affected and most vulnerable communities. A “carbon free grid” is different from a grid powered by renewables. It is necessary to identify the fuels and generation sources that would support that grid. Adopt the No Combustion Scenario in the SB 100 Joint Agency Report.
9. Any role for biomass combustion to generate electricity?	EJAC Response: There is no role for biomass for energy. Biomass should not be burned. Engineered carbon removal should not be in the modeling. Direct emissions reductions must always be prioritized. Ecological sequestration solutions and less/no combustion must be considered before engineered carbon removal. Worst-case scenarios must be included in any modeling of engineered carbon removal. There may be limited applications of biomass usage for energy in closed looped systems and / or in industries or rural/forested areas where clean energy is not practical, provided the following principles are met: there is no role for biomass conversion to energy in places or using methods that impact air quality in Environmental Justice communities and there is no role for policies that incentivize production of waste. Biomass combustion and agricultural offsets are also incompatible with the AB 32 and AB 197 statutory requirement to "Ensure that activities undertaken to comply with the regulations do not disproportionately impact low-income communities." Offsets must not be used with these systems.
10. Any role for combustion of renewable natural gas (RNG) or renewable hydrogen to replace fossil gas for reliability?	EJAC Response: A life cycle analysis examining the role of RNG (Renewable Natural Gas) needs to be conducted to make an informed decision, as well as an indirect land use change and displacement analysis in the biofuels context. The question and research needs to be more community focused, and those in the affected communities need to lead that research (that is, it must be community based participatory research). In evaluation of the creation of liquid

	fuels from biomass, it is necessary to evaluate and consider what impact the diesel trucks transporting and processing that waste has on communities. No support should be given to hydrogen added to the power plant feedstock, even in the short term, since that increases NOx, GHGs, and criteria pollutants. We oppose “blue” hydrogen and “grey” hydrogen, or any hydrogen generated from fossil fuel feedstocks (such as methane reforming), natural gas, or fossil-fueled energy. Any solution using combustion should only be considered a transitional tool. If using combustion is a consideration, CARB must incorporate an analysis of sunk investments and costs, and incorporate the costs of cumulative environmental impacts of such activities as a cost penalty on such technologies within PATHWAYS. Accordingly, limit feedstocks. Since green hydrogen powered by renewable energy using a process of electrolysis to split water is the only option that doesn’t create additional carbon dioxide, that should be the default choice. We should prioritize exclusively green hydrogen for powering hard to electrify sectors, and potentially for aviation.
D. Vehicle Fleet Electrification Zero Emission Vehicle (ZEV) EO (N-79-20)	
100% sales of light-duty vehicles are zero emission by 2035 11. Change?	EJAC Response: This question, like most, is difficult to answer without understanding the path to get there. There needs to be an intentional plan with incentives that prioritize low income and EJ communities. Would support moving faster, but need to identify resources that will facilitate that action. The challenge at the local agency level is the cost to implement (transitioning fleet). We also need to ensure that U.S./Mexico border and neighboring states do not become an easy path to circumvent California policy. Public transportation needs to be electrified and more funding is needed. It’s unrealistic to trade out car for car. Light-duty vehicles are not affordable to everyone. Improve access for people who can’t afford them. Invest in mass transit. Electric vehicles need to meet the needs of communities that must commute (range anxiety) and be accessible and affordable. CARB needs plans to meet dates, address job loss and creation, and how to get the transportation system electrified.
All drayage trucks are zero emission by 2035 12. Change?	EJAC Response: California should get to 100% sales as soon as possible (2030), and increase incentives while prioritizing low income communities and communities of color. It’s important to get these vehicles into the secondary market as soon as possible, and increase incentives. The challenge at the local agency level is the cost to implement (transitioning fleet). Would support moving faster, but need to identify resources that will facilitate that action. Need to ensure that U.S./Mexico border and neighboring states do not become an easy path to circumvent

	California policy. Low-income communities often don't have the resources to purchase ZEVs. CARB should focus on improvements to public transit, biking, and pedestrian lanes in urban areas. CARB should also provide resources for income-qualified consumers to access ZEVs. Ultimately, the build out of ZEV infrastructure in disadvantaged and unincorporated communities must be resourced to keep pace with the 2030 target and must only occur according to the vision and values of the local community.
All heavy/medium duty vehicles are zero emission by 2045, and off-road vehicles by 2035, where feasible 13. Change?	EJAC Response: California should get to 100% sales as soon as possible (2030), and prioritize the phase-in of ZEVs in low-income communities and communities of color according to CalEnviroScreen while targeting incentives in low-income communities and communities of color. It is important to get these vehicles into the secondary market as soon as possible. Challenge at local agency level is the cost to implement (transitioning fleet). We would support moving faster, but the resources that will facilitate that action must be identified. We need to ensure that U.S./Mexico border and neighboring states do not become an easy path to circumvent California policy. We're concerned about how implementation will occur, more aggressive targets for 2045. H&MD vehicles on same path. The EJ Orgs letter provides examples, 2030 ZEVs. Medium and heavy duty vehicles also need to be part of the conversation about sales because those are vehicles that are affecting disadvantaged communities. If California gets to 100% in 2030, CARB must put that in the model. We want to see modeling where 100% of the investments are invested in disadvantaged communities. We also want to see a model that eliminates dirty energy imports. California should get to 100% ZEV sales for heavy/medium duty vehicles as soon as possible because this large subsector of GHG emissions is critical to meet climate goals. The EJAC would like to see a scenario that includes a 2030 100% ZEV target, and also a scenario in which the proportion of demand that is attributable to DACs achieves 100% ZEV by 2030 if the rest of the state only achieves 100% ZEV by a later date such as 2040 or 2045. The EJAC feels that any policies advancing a 2030 100% emission overall must prioritize methods to begin the phase in of ZEVs that are in and route through EJ communities to mitigate negative cumulative impacts in EJ communities. It is important to get these vehicles into the secondary market that can benefit EJ communities as soon as possible.
E. Vehicle Miles Traveled (VMT) SB 375 requires development of local Sustainable Communities Strategies (SCS), which outline how regions will reduce per capita VMT.	
The recent AB 74 ITS transportation carbon neutrality paper assumed a	EJAC Response: Discussions about VMT must include local government agencies and be coupled with investments in zero emissions public transit and shared mobility options. Priority should be given to increasing ridership by a certain

15% reduction in per capita VMT in 2045. 14. Increase ambition of per capita VMT reductions?	year. Ensure that work addressing VMT focuses not only on the miles travelled but also on the associated emissions. VMT discussions must include particulate matter (PM_{2.5}), including localized PM, and how different approaches will affect its production and transport. A high transit scenario should be modeled in PATHWAYS that looks at 11% statewide transit ridership by 2035 that could result in a 30% VMT reduction. Transit ridership could be increased to 22% by 2045 with corresponding higher VMT reductions. VMT discussions must include decisions made by metropolitan planning organizations (MPOs). Push MPO's to push GHG reduction through active transit. Place more emphasis on transit and greenhouse gas reductions through active transportation. Add active transportation infrastructure in low-income communities and communities that don't already have it. Eliminate the need for vehicles wherever possible. VMT rules must consider whether all regions should be treated the same, or if there should be regional variations. Urban and rural areas are vastly different. Regional variation is key – housing affordability is important to link to this issue. Need to connect gentrification/ displacement with this VMT question. Only having the VMT tool is limiting, change in car demand and number of vehicles, significant investments in mass transit. Life cycle emissions for electric vehicles, 60% reduction from ICE (internal combustion engines) at best. When addressing VMT we need to ensure a form of regulating vehicles going across the border. VMT discussions need to consider the need to expand transit, especially in urban communities. Consider alternate strategies for rural areas. For port communities, the timeline is critical to getting to 100%. CARB must also model long-term demand for electric vehicles overall. CARB should request that E3 modelers propose methods to proxy additional VMT adjustments based on mode share, energy efficiency, and cost efficiencies from increased zero emission transit ridership into PATHWAYS to help the Board and EJAC improve transportation access for EJ communities. CARB should propose and model scenarios with additional levels of VMT reduction levels based on factors raised in the EHC letter.
F. Petroleum Fuels Governor Newsom directive to CARB to evaluate a phase out of extraction by 2045, recent letter to evaluate carbon neutrality by 2035	
15. Change extraction phase out date, what date?	EJAC Response: Theme A: Yes, end oil drilling in California by 2035. Phaseout should start as soon as possible and include protections for workers and tax-base replacement for county and local governments. A just transition needs to be developed for

	workers in the petroleum industry, to minimize/prevent job loss and ensure tax dollars continue to support the communities. Theme B: Stay on the current date. Customers are moving away from these fuels. Changing the date is unnecessary, given how the market will function as customers who previously used petroleum fuels leave.
16. Any phase down of refinery operations to supply CA fuels?	EJAC Response: CARB should pass regulations that send clear and consistent signals and a timeline on just transition. In recognition that the fossil fuel industry is in decline due to market forces, we call for a coordinated, expeditious phaseout timetable of the Fossil Fuel Chain. However, we oppose speeding up deadlines through the use of harmful, shortsighted, and/or unproven alternatives in order to reach a “net zero” target, instead of investing in direct emission reduction strategies. At least 45% cuts in GHGs by 2030 are achievable, as demonstrated by the Zero Carbon Energy scenario in the October 2020 <i>Achieving Carbon Neutrality in California</i> (“Achieving CN”) report for CARB. CARB <i>should</i> speed up dates and set more aggressive targets when it is shown achievable, rather than arbitrarily picking dates. CARB must prioritize Just Transition goals in its planning. CARB should also move away from CCS or any other measures that incentivize the shift from fuel production to other petrochemicals and feedstocks for plastics. CARB must address both the demand and supply side and emphasize replacing the refinery markets.
17. Do we produce any in demand renewable fuels from waste biomass instate at converted refineries?	EJAC Response: To have informed discussions, CARB must identify the types of fuels specifically (e.g., “green” renewable hydrogen vs. “blue” or “grey” hydrogen, which leave a CO₂ impact). The health of communities where this waste is/would be processed must be the primary consideration, particularly for diesel trucks transporting and processing that waste. CARB must identify other ways of managing these wastes without releasing more carbon and must have zero air quality impacts. There may be limited applications of biomass usage for energy in closed looped systems and / or in industries or rural/forested areas where clean energy is not practical, provided that both of the above conditions are met. Since green hydrogen powered by renewable energy using a process of electrolysis to split water is the only option that doesn’t create carbon, that should be the default choice.

G. Methane	
California needs to reduce emissions of short-lived climate pollutants, including methane, per SB 1383. Dairy operations and landfills account for 3/4 of Statewide methane emissions. 18. How should we use biogas captured from dairies and landfills – electricity generation, industrial heat, transportation fuel, other?	EJAC Response: As a preliminary matter, EJAC needs a comprehensive workshop on this so all members can understand this complex topic, to make educated recommendations. To have informed discussions, CARB must identify the types of fuels specifically (e.g., “green” renewable hydrogen vs. “blue” or “grey” hydrogen, which leave a CO₂ impact). This question also leaves out water. The question is not how we should use biogas, but whether we should use biogas at all. CARB must first determine if everything possible has been done to minimize the methane emissions from a source. If so, use the methane to provide electricity for the facility itself first before transporting it to a pipeline or putting it on the grid. Include all emissions from all agricultural operations, since they all contribute to health problems. Pesticides and fluorinated gases need to be included in this equation because of their high warming potential and human health impacts. CARB must identify other ways of managing these wastes without releasing more carbon. Emissions from trash incinerators and their impacts should be measured against those that would be emitted by capturing the biogas and using it instead. There is no role for waste incineration/conversion to energy in places or using methods that impact air quality in Environmental Justice communities, and there is no role for policies that incentivize production of waste. The state should focus on zero-waste policies and methods that reduce production of single-use plastics and other waste, and increase recycling, composting, and other more sustainable practices to reduce methane in landfills instead of incineration/combustion. CARB must provide an analysis of the comparable impacts on EJ communities and set at least more stringent goals than the global goals set at COP26. Since this is a cross-agency issue, there are cross-sectional benefits that come from reducing methane and nitrates from dairies. Incentives for biomethane should be eliminated. Since green hydrogen powered by renewable energy using a process of electrolysis to split water is the only option that doesn’t create carbon, that should be the default choice.
H. Woody Biomass and Solid Biomass Waste Landfill organics diversion goals, phase out of agricultural burning, and wildfire mitigation efforts may provide large quantities of solid biomass waste that can be responsibly utilized.	

19. How should we best utilize solid biomass waste? (a) Produce renewable hydrogen for use in zero emission fuel cells?	EJAC Response: To have informed discussions, CARB must identify the types of fuels specifically (e.g., “green” renewable hydrogen vs. “blue” or “grey” hydrogen, which leave a CO₂ impact). CARB must identify other ways of managing these waste streams without releasing more carbon. Biomass should not be burned and should definitely not be burned in neighborhoods that are already heavily impacted. CARB must move away from the sustainability framework and begin moving to advancing a regenerative economy to benefit communities and create local jobs. We strongly oppose large, industrial plants bringing waste from other places. Agriculture plays an outsized role in contributing to criteria pollutants, harmful health impacts, and eroding healthy soils. Sustainability and agro-ecology should be prioritized so the land can sequester carbon naturally. Biomass should stay on-site and incorporate into biomass in the soil. Chipping, composting and soil reincorporation are better options than burning biomass. Woody biomass could be used for biochar to benefit healthy soil. EJAC is strongly opposed to any use of offsets from forests, land, or soils in the Cap & Trade program. Since green hydrogen powered by renewable energy using a process of electrolysis to split water is the only option that doesn’t create carbon, that should be the default choice.
(b) Produce liquid fuels?	EJAC Response: See answers to 19 (a).
(c) Produce RNG for industrial or electricity sector?	EJAC Response: See answer to 19 (a). There is no role for waste-to-energy unless there’s a zero impact model. We don’t have enough information on pyrolysis and anaerobic digestion to make a recommendation on those. We need to know how CARB defines RNG and renewable hydrogen. Any solution, including market signals, should serve EJ communities and do no harm.

I. Residential and Commercial Building Decarbonization	
New buildings 20. All new buildings use electric appliances only starting in what year?	EJAC Response: 2030. Focus on both existing and new buildings. Building decarbonization efforts must not increase gentrification or increase energy costs for middle and low income communities. The technologies must be available to the largest number of people in the most affordable way. CARB must identify the building decarbonization pathways being considered, to better inform EJAC members for discussion. CARB must adopt a healthy homes model in relation to appliances. Overall, CARB must place a greater focus on incentives offered and other methods to address the barriers to participation in such programs, given that BIPOC communities will be the last in line to adopt ZEV or zero emission strategies. Current incentives and subsidies programs are a start and should be supplemented. Similarly, CARB should also expand on its current efforts and further target investment in clean energy job development. Continue working with the Building decarbonization team to co-create a set of EJ-based energy policies. See the SAJE (Strategic Actions for a Just Economy) in Los Angeles's report: <i>Los Angeles Building Decarbonization: Tenant Impact and Recommendations</i>.
Existing buildings 21. In what year should sales of gas appliances be phased out?	EJAC Response: 2030. CARB must focus on both existing and new buildings. Building decarbonization efforts must not increase gentrification and must consider anti-displacement strategies. The technologies must be available to the largest number of people in the most affordable way. California must provide funding for rapid upgrading of substandard housing in disadvantaged and low income communities to ensure they can have solar systems, storage batteries, and energy efficient appliances in their homes. CARB must identify the building decarbonization pathways being considered, to better inform EJAC members for discussion. CARB must ensure the very-low-income housing units are prioritized. If necessary, choose a later date that ensures deeper penetration of non-natural-gas appliances in homes. We support the use of the SB 100 No Combustion scenario.

	CARB needs to design programs with low-income renters in mind. CARB also should develop best practices on anti-displacement and gentrification in the design on appliance replacement programs and its efforts at decarbonizing existing buildings.
22. Even with a gas appliance ban for new purchases, we may need to retrofit existing buildings to replace existing gas appliances. What percent of existing buildings are retrofitted to be all electric and by what year?	EJAC Response: Building decarbonization efforts must not increase gentrification. The technologies must be available to the largest number of people in the most affordable way. CARB must identify the building decarbonization pathways being considered, to better inform EJAC members for discussion. California must provide funding for rapid upgrading of substandard housing in disadvantaged and low income communities to ensure they can have solar systems, storage batteries, and energy efficient appliances in their homes. CARB must ensure the ultra-low-income housing units are prioritized. If necessary, model different years to ensure deeper penetration of non-natural-gas appliances in homes.
23. While transitioning to electric appliances, do we keep fossil gas or RNG or both?	EJAC Response: Move away from fossil gas. No RNG. Focus on both existing and new buildings. Building decarbonization efforts must not increase gentrification. The technologies must be available to the largest number of people in the most affordable way. CARB must identify the building decarbonization pathways being considered, to better inform EJAC members for discussion. Need to rely on clean sources of energy to power the grid. We support the use of the SB 100 Joint Agency Report No Combustion scenario.
J. Industry (Manufacturing, Construction, and Agriculture)	
24. What to do with industries that can't electrify due to technology availability? (cement, glass, steel, etc.)	EJAC Response: Ensure that solutions do not increase local air pollution in EJ communities, in violation of AB 197. Pursue solutions that simultaneously address both pollution and greenhouse gases. Invest in and focus on innovation to transition industries to be greener and less harmful. This is a much better use of resources than investment in CCUS. Consider the social costs of any changes to or new infrastructure as part of the decision-making. CARB must consider the location of these energy sources. Since green hydrogen through non-combustion sources is the only option that doesn't create carbon, that should be the default choice to power these industries.

(a) What would be their energy source (RNG, renewable hydrogen, natural gas, some combination)?	EJAC Response: The EJAC needs more information on what alternatives are available before providing comments. EJAC needs more information on these and associated emissions. Since green hydrogen powered by renewable energy using electrolysis to split water is the only option that doesn't create additional carbon dioxide emissions, that should be the default choice.
(b) What would be their long-term operations in the state?	EJAC Response: The EJAC needs more information on what alternatives are available before providing comments. Establish an R&D program and community-based participatory research to find alternatives and permit processes for CCUS so that it does not continue for longer than necessary. Divert CCUS money to community-based participatory research, so we can avoid the CCUS route. Conduct R&D to improve processes to reduce/eliminate emissions and to find alternative means of continuing to produce the product without depending on CCUS. We must prioritize a just transition. Be innovative about the framing of this issue in PATHWAYS to focus on greener, more sustainable practices that reduce emissions. Include community-based participatory research in work with VELOZ, CARB R&D, and any other CARB support of startups or R&D. The research and development should provide local, green jobs and ensure that innovation is contributing to local communities. Technologies should be open-source. If community based participatory research confirms that industries such as cement, steel, glass cannot be conducted without CCUS measures, then they may be allowable under very narrow constraints as defined by geology and the tolerance of impacted communities.