AB 32 Environmental Justice Advisory Committee (EJAC)
Draft Initial Recommendations for Discussion Draft Version of 2030 Target Scoping Plan Update
August 26, 2016

Overarching Issues

The AB 32 Environmental Justice Advisory Committee (EJAC) started meetings about the 2030 Target Scoping Plan in December 2015. In addition to committee meetings across the state, the EJAC hosted a robust community engagement process in July of 2016, conducting 9 community meetings and collecting over 700 individual comments. The recommendations below are informed by those meetings, EJAC member expertise and comments received. To help make our recommendations more actionable, we sorted them into five themes that are described in more detail below and throughout this document: partnership with environmental justice communities, equity, economic opportunity, coordination, and long-term vision. While our recommendations are sorted by sector, we intend them to be read and implemented holistically and not independently of each other.

Partnership with Environmental Justice Communities	
1	Encourage public engagement and a culture shift in California to step up the implementation of our state's climate plans, using the following strategies: a. Develop a communications plan to get everyday people excited about our climate programs. The plan must focus on the health and socio-economic impacts of air pollution and climate change, and include innovative, multilingual delivery methods like integration into school curriculum, technology applications, or Public Service Announcements (PSAs) to convey how air pollution and greenhouse gases are related to increases in hospital visits, lost wages, and economic insecurity. b. Promote community-level climate projects to show people how they are done and what they can accomplish. c. Create a "report card" for elected officials that show community members how officials voted on regulatory policies and the implications of those policies. d. Create a "report card" on Scoping Plan implementation that is updated every two years, using metrics identified in the Scoping Plan.
2	Emphasize and demonstrate neighborhood-level solutions that draw on community ideas, rather than just taking a top-down approach. Ensure long-term community engagement and pre-assess projects in the targeted community and conduct at least five-year follow-up to ensure that projects result in community-directed benefits.
3	Continue to convene the EJAC beyond the Scoping Plan process. Implementation of the Scoping Plan can tap on the expertise and relationships of the EJAC members and their networks. Public policy is more successful when there is broad public awareness to ensure its success and oversight.
Equity	
4	ARB must better balance reducing greenhouse gases and reducing costs (cost compliance) with the other AB 32 goals of improving air quality in EJ communities while maximizing benefits for all Californians. There has been too much emphasis on reducing costs to industry, and not enough attention on reducing emissions and their associated costs in EJ communities.
5	Equity must always be a primary consideration when examining issues in any sector. Decades of cumulative impacts and inaction have led to a sense of urgency in needing to resolve adverse health and economic issues in disadvantaged communities. To demonstrate progress and build trust, both short- and long-term activities need to result in positive, immediate, and measurable impacts in these communities. ARB must

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	conduct an equity analysis on the Scoping Plan and each sector. Work with EJAC on the analysis and the right questions to ask.
6	All climate goals and policies need to have metrics and baselines quantified to ensure that actions are meeting targets and goals over time. Each sector's data must show historic emissions and future trends (both business as usual and how much reduction if certain programs are implemented). Each emissions sector, must calculate goals for emissions reduction to 2030; see example with the Short Lived Climate Pollutant strategy. These metrics must also include public health outcomes and issues.
7	ARB must develop contingency plans for mitigation and adjustment to the overall plan if emissions increase in benchmark years (due to huge leaks like Aliso Canyon, or if certain programs fail to reduce emissions). Timely emissions data will also allow ARB to adjust or incorporate new strategies as needed.
8	Expand and integrate real-time air quality monitoring, citizen science, and SEPs (supplemental environmental projects) in disadvantaged regions, including the California/Mexico border region. Monitors must be placed throughout regions to ensure we have an accurate understanding of air quality issues in that region. Consider a carbon tax that funds monitor installation and maintenance at every school in California.
Coordination	
9	Achieving our ambitious 2030 targets will require ARB to work with other agencies, jurisdictions, and program processes. Coordinate meetings between the interagency working groups (IWG) and EJAC, to encourage information sharing and mutual cooperation between the groups. Improve coordination among state, federal, and local agencies with regard to their planning and implementation activities. Support cities and local implementation of Energy and Climate Action Plans.
10	Coordinate strategies to prevent and address sprawl with equity at the center. Sprawl has negative environmental impacts on transportation, air, water, and more. New projects must not create adverse impacts like displacement of existing residents. Negative Declarations need to be phased out. All new greenhouse gas sources must be mitigated.
11	All policies and programs must adopt strong, enforceable, evidence-based policies to prevent displacement of existing residents.
Economic Opportunity	
12	Maximize job and economic benefits for Californians. Develop a just transition for workers and communities in and around polluting industries with a pathway for them to be first in line for jobs in the green economy. Include a section in the Scoping Plan on healthy, well-paid jobs and broad economic benefits, especially targeted for EJ communities, for jobs that don't require a worker to sacrifice his or her health in order to support a family, as is currently common. These efforts must emphasize capacity building in the community and outline fair hiring practices and policies, and be first focused on transitioning workers from polluting industries.
13	Benefits from Scoping Plan implementation must be accessible to Environmental Justice communities. Vouchers to help access new technologies, geographic distribution of resources and investments to disadvantaged communities, and transparent/accessible engagement in any planning and decision-making processes are essential.
14	Build in incentives and support for compliance. Incentivize behaviors that protect and improve disadvantaged communities; both on a large scale (e.g., industry and agriculture) and at a community level (e.g., completing communities with paved roads,

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	sidewalks, bike/pedestrian paths, and planting trees). Explore effective strategies for change without incentives.
15	Ensure that AB 32 economic reviewers come from various areas around the state to represent insights on economic challenges and opportunities from those regions. The Environmental Justice Advisory Committee must choose at least half of the members. Ensure that the EJAC receives ready and timely notice of and access to any economic reviews, in time to give advice to and guide the process.
Long-Term Vision	
16	The Scoping Plan must not be limited to examining interventions and impacts until 2030, or even 2050. What we do today and for the next 30 years will have impacts for seven generations, so our planning and analysis must have a longer-term scale to prevent short-sighted mistakes and rather reach our long-term vision. We request that all policies and analyses include this long-term vision. a. Leave fossil fuels in the ground b. Do not create new infrastructure that relies on fossil fuels, including natural gas, fracking, pipeline development, crude oil shipments and processing c. Just transitions model of moving toward local living economies that prioritize the well-being of communities
17	The EJAC expects to see the largest proportion of reductions of greenhouse gases take place in California in the future. ARB must prioritize actions and investments in California EJ communities before looking at other Californian communities or outside of California.
18	Achieving our 2030 targets will require more effective implementation and creative innovation than we have ever done before. The Scoping Plan must prioritize whenever possible the innovation of new technologies or strategies to reach even deeper emissions cuts. These innovations must put EJ communities first in line for environmental and economic opportunities.

Industry	
	Equity
1	State in the Scoping Plan that it is a priority to reduce emissions in EJ communities, and to ensure no emissions increases happen there. Through standardized metrics, ensure that emission reductions from AB 32 activities are being achieved, especially in EJ communities.
2	Use a "loading order" for Industry similar to the one that is used by the California Energy Commission for supplying demand. Always prioritize the approval and use of the most efficient and low-carbon technologies, facilities, and projects over high-polluting ones
3	Address localized impacts of short-lived climate pollutant emissions, such as black carbon from all sources.
4	A big design flaw of Cap-and-Trade is having an ambiguous economy-wide cap. Eliminate Cap-and-Trade, replace it with a non-trading option system like a carbon tax or fee and dividend program. In addition: a. Increase enforcement of existing environmental and climate laws, increasing penalties for violations in DACs. b. Establish a state run "Carbon Investment Fund" allowing the private financial sector to invest in Carbon Futures. Pay dividends through enforcement fines, permit fees and carbon tax receipts. c. Better coordinate climate pollution and local criteria pollutants programs. d. Place individual caps on emission sources, rather than using a market-wide cap. Set up a per-facility emissions trigger that will tighten controls when a certain level is reached. e. Establish a moratorium on refinery permits. f. Set goal of 50% emissions reduction in Oil and Gas sectors by 2030. Aggressively reduce emissions from these sectors, including fugitive and methane emissions from extraction and production. g. Put emissions caps on the largest polluters. h. If Cap-and-Trade continues, do not give out more free allowances. i. Do not exempt biomass burning activities. j. Do not allow regulated entities to apply for California Climate Investments funding. k. Increase the floor price to the real price of carbon; use the highest price offered, not the lowest. Incorporate industry's externalized costs into the cost of carbon (as is done with the mitigation grant program at Port of Long Beach). Calculate the cumulative impacts so they can be mitigated. Ensure that polluting facilities are paying the societal costs of their emissions, rather than externalizing them.
5	The Scoping Plan Economic Analysis must consider carbon tax, command and control regulation, and Cap-and-Dividend or Fee-and-Dividend. Cap-and-Trade must be eliminated. The price of carbon must be increased, with the resulting funds invested in local communities to ensure all benefits from a greenhouse gas free future.
6	Expand the definition of *economy* to include costs to the public (e.g., U.S. EPA social cost calculator). Conduct an economic analysis that would account for the cost to public health (beyond cancer, respiratory and cardiovascular diseases) and environmental burdens from greenhouse gases. Include the Integrated Transport and Health Impacts Model (ITHIM) in the analysis. Ensure that ARB coordinates with other state agencies in this effort.
7	Ensure that the Adaptive Management tool is adequate for real-time monitoring and intervention. There must be at least two EJAC members on the Adaptive Management work group. To demonstrate how the tool can help communities, complete an Adaptive

Industry	
	Management analysis for Kern County.
8	To address tension between workers and community members who live in polluted areas, there needs to be access to economic stability and a just transition to the new clean economy. Ensure that workers in Environmental Justice communities whose livelihood is affected from a move to cleaner technologies have access to economic opportunities in that new clean economy and that local businesses continue to employ workers from that community.
9	Do not commit California to continuing Cap-and-Trade through the Clean Power Plan. Since carbon trading cannot be verified, ensure that the Clean Power Plan power purchases are from sustainable, renewable power plants.
10	Eliminate offsets. Actions and investments taken by industry to reduce emissions need to be reinvested in the communities where the emissions have occurred. Any benefits from greenhouse gas reduction measures must affect California first. In addition to California emissions, also consider activities that can reduce pollution coming from across the Mexican border, to reduce emissions in the border region. Do not pursue or include reducing emissions from deforestation and forest degradation (REDD) international offsets in the Scoping Plan.
Coordination	
11	ARB needs to examine ways to increase its partnerships with and oversight over air districts using its existing authority. Local air districts need to be held accountable to the same standards as ARB. Promises need to be documented and strictly enforceable. If an air district chooses to have stronger standards than ARB, that air district must have the power to enforce those stronger standards without interference from ARB.
12	Stop "passing the buck" from agency to agency and fix the problems. All agencies need to take responsibility for all pollutants. Coordinate efforts among agencies when necessary, and among local governments and communities. Implement the following measures: a. Improve community and neighborhood level air pollution monitoring. b. Add EJ members to all agency boards and committees. c. Tier pricing for allowances for facilities in EJ communities, making it more expensive to pollute in those communities. d. Improve communications about air quality between polluters and schools and nearby residents, both for individual accidents and in terms of overall facility emissions. Develop a cooperative, productive discourse. e. Provide easily accessible and immediate notification to schools and nearby residents in the event of a facility accident; current notification is much too slow. Develop and make accessible tools like the real-time air quality advisory network (RAAN) phone application, so residents can access real-time air quality information at the neighborhood level. f. Establish better coordination between enforcement agencies. Expand air quality night enforcement so that all communities have around-the-clock enforcement to address off-hours violations.
Partnership with Environmental Justice Communities	
13	Create a thorough air quality monitoring system and deputize the community to participate in that network through databases, apps, and community science. Fund a program to provide communities with the tools and training they need to participate. Identify the pockets not being monitored and also the hot spots. ARB must take a greater responsibility for monitoring. Ensure that all monitoring covers both greenhouse gas pollutants and criteria

Industry	
	pollutants, to expand the state's databases and accurately characterize all communities, so that CalEnviroScreen can more reliably identify areas that qualify for funding. Make monitoring transparent and accessible.

Energy, Green Buildings, Water	
Equity	
1	Develop aggressive energy goals toward 100% renewable energy by 2030 to reach emissions reduction sooner, especially if other sectors lag or increase emissions. Increase 2020 reduction target to 50%, aiming up to 100% reduction by 2050.
2	California must fully practice the state's energy loading order: prioritize all cost-effective energy efficiency, then demand response, and finally renewables and distributed generation. These priority strategies, in combination with energy storage, must be fully utilized prior to the use of natural gas power plants.
3	Expand rooftop solar in EJ communities, including desert communities. Use brownfields for solar.
4	Remove special considerations or exemptions for investor-owned utilities, and instead require them to develop power that is the most clean and efficient, and under the same rules and structure as their counterparts.
5	Imported electricity must not be considered renewable beyond the percent of renewable energy production (the renewable portfolio) currently existing in the exporting state. There must be no double-counting or incentives to encourage other states to burn fossil fuels.
6	Do not use Cap-and-Trade (or carbon trading, offsets) for the Clean Power Plan. The Clean Power Plan must ensure power is generated from sustainable, renewable sources.
7	Do not provide energy credits for biomass burning or count it as renewable energy. Make wood chips available from dead trees to use as mulch in gardens (don't burn it).
8	Carbon capture and sequestration power plant projects using captured carbon dioxide for enhanced oil recovery must not be certified as projects that sequester carbon for the purpose of carbon credits of any kind. Also, injection of carbon dioxide for sequestration purposes shall not take place without the express permission of all surface landowners above the zone of sequestration in order to qualify for carbon credits.
9	Climate investments and energy solutions (building retrofits, weatherization, solar, microgrids, etc.) must serve entire disadvantaged communities, rather than just individual buildings or homes. Other populations of note include: fixed-income, seniors, people with chronic conditions, and other low-income residents.
10	Develop innovation hubs for disadvantaged communities in order to support innovations, development and use of clean energy and weatherization, like low-cost solar cell stacking.
11	Upgrade residential building electrical systems to support clean energy upgrades in urban, rural and unincorporated communities. Increase progressive types of code for future upgrades. State funds for clean energy technologies in disadvantaged communities must allow for funding for maintenance and upgrades necessary for clean energy technologies. Create green development bank to fund energy efficiency programs in disadvantaged communities.
12	Prevent and mitigate negative land use impacts from energy projects, including increased dust from clearing land, sprawl, displacement, increased traffic, and understanding costs of these emissions projects.

Energy, Green Buildings, Water	
13	Set a moratorium on new oil and gas operations (refineries, power plants, fracking wells, etc.).
14	Phase out natural gas-based appliances and technologies, and transition to electric and solar thermal technologies. Offer energy efficient household appliance upgrades to low-income residents in particular.
15	Support tree planting and green infrastructure in communities to reduce energy use for cooling buildings. Such infrastructure could include cool roofs or permeable surfaces to cool community and reduce energy consumption.
16	Set and enforce greenhouse gas reduction targets for existing buildings and improve building codes. Broaden the definition of a "green building" to include retrofits of existing buildings in disadvantaged communities. Identify and implement best practices for retrofitting existing buildings.
17	Set goals for new and green buildings: all new constructions to be zero net energy (ZNE) by 2020, with none using natural gas or biogas. Include affordable housing buildings in ZNE goals.
18	Develop standards and support the construction of "living buildings" (regenerative buildings that more closely follow natural ecosystems, with features such as solar, water capture, efficient and affordable transportation options, etc.) within disadvantaged communities.
19	Provide direction to industry on best practices for rapidly moving toward widespread design and construction of green buildings within disadvantaged and low-income communities, and incentivize developers to adopt the standards and implement them. Ensure that building or retrofit costs are not passed along to low- and moderate-income tenants by providing tax incentives, or by adopting policies that prevent having those costs passed on to them. Share energy savings with renters.
20	Make pumping of water by the State Water Project in California 100% renewable by 2030, with consumers of the water paying for renewable energy installation and production along the project right-of-ways.
21	If geothermal energy is developed, ensure that it is benefiting, and not harming, the local community.
22	Identify the energy use and reduction goals for the proposed California Water Fix and Eco Restore project (formerly the Bay Delta Conservation Plan), including the pumps at Tracy (the single largest energy user in California).
23	Encourage regional self-sufficiency and conservation to maximize water supply through water recycling and rainwater capture, low-impact development, end-user education, and use of native plants, and by enforcing the proper use of landscape water. Provide resources to help low-income households install grey water designs for landscape irrigation.
24	Prioritize pollution prevention in all AB 32 projects and regulation. The provision and distribution of affordable, safe drinking water for all must be the highest priority. ARB is subject to code enforcement of making water available.
25	Stop investing in dirty energy. Eliminate subsidies and financing for fossil fuels and in technologies such as corn-based biofuels, agricultural methane, biomass burning, waste-to-energy, or other unsustainable technologies that result in negative impacts on EJ communities. Use funds instead for clean energy projects in EJ communities.
Coordination	
26	The California Energy Commission (CEC) must evaluate all renewable energy projects under the renewable portfolio standard (RPS) for lifecycle emissions and co-pollutants to ensure they do not create new problems in overburdened communities. The CEC must render

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	ineligible those technologies that increase local air quality burdens without direct and current 200% mitigation of all air quality impacts within ten miles of the project location. The CEC must ensure that imported renewable energy, including that from tribal lands, is consistent with California requirements.
27	Prioritize the siting of renewable energy, grid storage, microgrids, and community choice aggregation projects within communities identified by CalEnviroScreen. EJ communities need to be able to reap the environmental and economic benefits of these energy projects. Pilot 10–100 microgrid projects in EJ communities. The California Energy Commission must prioritize and maximize clean energy research and development investments in disadvantaged communities through its Electric Program Investment Charge (EPIC) Program and actively engage those communities in developing the investment plan for that work. Ensure that power companies do not disincentivize neighborhood-level renewable energy generation through taxes and feeds.
28	Avoid and mitigate any increased emissions from energy operations, and prioritize disadvantaged communities in this effort. The California Independent System Operator ("CAISO") must not pursue regionalizing the energy market if there are negative impacts like natural gas plant emissions increases or health effects on disadvantaged communities. Ensure an effective and aggressive adaptive management plan if there is grid regionalization. Prevent negative unintended consequences with strong inter-agency coordination between the Air Resources Board, California Public Utilities Commission (CPUC), California Energy Commission (CEC), CAISO, and local air districts, and in related proceedings and policy discussions.
29	The California Energy Commission (CEC) must provide guidance to state and municipal energy agencies to lower the barriers to pursuing deep energy retrofits to upgrade homes, businesses, and public institutions in low- to moderate-income communities. This can happen through the CEC's SB 350 Barrier Studies and any related follow-up studies.
30	Mandate local jurisdictions to install energy-efficient alternatives in community buildings (e.g., shopping malls, recreation centers) as they do in government buildings.
31	Coordinate federal, state, and local agencies to create a one-stop shop for residential, commercial, and industrial energy efficiency and renovation programs. Focus on the whole house rather than on one aspect at a time, so that multiple programs can be more easily accessed, and on retrofitting the whole community to leverage economies of scale. Make homes more energy efficient before installing renewables. Establish pilot projects to retrofit substandard low-income housing with federal Housing and Urban Development (HUD) funding.
32	Implementing agencies must build training partnerships with local institutions that have a proven track record of placing disadvantaged workers in career-track jobs (such as community colleges, nonprofit organizations, labor management partnerships, state-certified apprenticeship programs, and high school career technical academies).
Partnership with Environmental Justice Communities	
33	Increase literacy about clean energy programs and services, especially for people in geographically, linguistically, and/or economically isolated communities. Use trusted sources of information such as community-based organizations, school curricula, outreach to immigrant communities in-language and employ culturally appropriate and multigenerational messaging techniques.
34	Identify, implement, and standardize metrics to track energy savings, quantify energy reductions, conduct post-project assessments to ensure accountability, and survey local

Energy, Green Buildings, Water	
	activities to determine if strategies are working (or not). Use EJ residents as a resource for data collection.
35	Promote more education to water end-users about ways to conserve water and energy.
Economic Opportunity	
36	Promote the development of community-driven clean energy projects that hire from disadvantaged communities, prioritize community ownership of (and equitable access to) clean energy technologies, maximize energy bill reductions for low- and moderate-income communities within disadvantaged communities, and prioritize anti-displacement strategies. For climate projects, employ project labor agreements, best-value contracting and local/targeted hire goals to provide access to career-track construction jobs for disadvantaged workers. In consultation with state workforce agencies, direct implementing agencies of climate programs to develop specific goals to train and facilitate employment of workers from disadvantaged communities. Use CalEnviroScreen, other robust screening tools, and local unemployment data to identify and prioritize communities for job creation programs.
37	ARB shall work with appropriate state agencies to identify and develop data and criteria for measuring economic and employment co-benefits resulting from AB 32-related public investments. Develop measurable targets and a process for determining if those targets are met. To improve transparency, report progress or lack of progress to the community regularly. Provide better oversight of climate change investments to ensure they benefit all EJ community members.
38	Maximize carbon reduction and energy savings by directing implementing agencies to promote the highest quality work, standards for participating contractors, and minimum training and skills for workers.
39	Provide scholarships for college work in relevant clean energy fields.
40	Develop incentives, rebates, and financing mechanisms to accelerate equitable access to clean energy technologies in low-income households, apartment buildings, small businesses, and other community-serving facilities such as community centers, churches, health clinics, schools, parking lots, local industry buildings, and community-based organizations. Surplus energy can be invested back into the community or to cleanly fuel industrial facilities. Eliminate landlord signature for energy improvements or rebate application programs; obtaining a signature can be difficult and landlords sometimes increase rent after upgrades.
41	Develop incentives and phase in requirements for renters and landlords to provide energy efficiency upgrades and provide upgrades that enable buildings to use renewable energy technologies and water capture. Update building and zoning codes to support renewables. Enable builders to fast-track a project if it includes solar. Follow U.S. Department of Housing and Urban Development (HUD) program guidelines so landlords cannot raise rents due to improvements.
42	Lower finance barriers and increase access to low- and no-interest energy efficiency financing for the low- to moderate-income single-family, multifamily, and small business sectors. This includes credit enhancements, interest rate buy downs, rebates, low-interest loans, and supporting the use of alternative measures of creditworthiness to provide greater access to affordable capital.
43	If federal tax credits for residential solar installations are discontinued in the future, California must make up the difference with state tax credits and rebates.
44	If federal tax credits for small business solar installations are discontinued in the future, California must make up the difference with state tax credits and rebates.

Energy, Green Buildings, Water	
45	Protect low-income households from energy price spikes.

Transportation	
Overarching Principles	
We envision a California where all communities breathe clean air and have access to safe, affordable, clean transportation options. The following recommendations will help to achieve this vision. The themes present in this Transportation Section that can be lifted up as overarching principles are: a. Access to clean transportation technologies b. Meaningful investments in disadvantaged communities c. Capturing economic benefits in disadvantaged communities d. Coordination of state and local agencies e. Reporting on actual impacts of programs, particularly community level impacts f. Robust community participation	
Equity	
1	The top priority for transportation planning and investments is to reduce vehicle miles traveled (VMTs) while increasing access to affordable, reliable, clean, and safe mobility options in disadvantaged communities.
2	Examine mobility regionally, as there are different challenges and opportunities in different areas of California. For example, reduce transportation emissions along the border with Mexico by focusing on cross-border commuting. Reduce the long border wait lines and idling by increasing lanes for walking and biking, providing zero-emission bus and shuttle options, and increasing transportation infrastructure to support traffic.
3	Expand transit services to provide neighborhood-level access, use different vehicle sizes and types to ensure economies of scale, sustainability, and accessibility to disadvantaged communities. Increase access to buses and trains for youth, students, elderly, those seeking medical care, and low-income riders. Employ free or discounted transit passes for these groups. Prioritize funding for buses in areas where buses are relied upon more by low- and moderate-income commuters in disadvantaged communities.
4	Define *infrastructure* not just to include highways, freeways, new fueling stations, and roads, but also sidewalks, bike paths, and green infrastructure. Invest in multi-modal and shared transportation instead of building new freeways. Furthermore, state and local government agencies must not count building freeways as a GHG reduction strategy.
5	Ensure that there is sufficient infrastructure to support new and current low emission vehicle types (i.e. bikes, electric vehicles, etc.). The state must strengthen and identify more opportunities to fund and mandate local land use decisions that support a low-carbon future and protect the health of local residents.
6	Promote more community-friendly land use planning that prioritizes the health and economic wellbeing of environmental justice communities and is developed in close consultation with community members. We recommend the following community-friendly land use planning strategies: a. Design and implement new incentives, beyond tax credits, to encourage infill and mixed-use development over sprawl. Develop and implement land use, building code, and permitting changes to streamline planning. b. Increase support for use of cleaner, safer sidewalks and bike paths. Better lighting,

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	increased distance or barriers from roadways and freight railways. increase bike and path/sidewalk sweeping c. Ensure that the placement of bus garages, terminals, and hubs does not disproportionately impact environmental justice communities and pursue measures to reduce environmental impacts from these facilities. d. Promote and fund projects that create clean, safe, and accessible mobility pathways and networks for environmental justice community members, particularly more sensitive populations such as youth, elderly, and those with health problems. Mobility options must include more active transportation options such as bike paths and sidewalks. e. Improve existing transit resources, including increasing the number of bus stops where needed, developing intelligent and connected bus stops, and improving bus stop infrastructure (e.g., covered and better lit bus stops with more benches). Transit planning and maintenance must prioritize safety and coordinate with last mile initiatives. Transit planning must also prioritize efficiency and support routes that promote accessibility, reduce health impacts from criteria pollutants, and lower GHGs. f. Plan for dedicated bus lanes on the freeway to promote the efficiency and use of public transportation. The buses themselves must be cleaned more frequently and must integrate more easily with other mobility options such as biking and trains/trolleys to help increase user satisfaction and ridership.
7	Target truck fleets and vehicle fleets with electrification and cleaner, sustainable fuels to achieve the quickest, most significant reductions in emissions. The state must increase the fleet turnover target to at least 40%.
8	Actively support and implement California Cleaner Freight Coalition's recommendations to California's Sustainable Freight Action Plan.
9	Develop strategies that ensure small independent trucking companies and concerns are incentivized to transition to zero or near-zero emission vehicles as well as more efficient truck technologies.
10	Restrict truck routes and travel times and limit new trucking operations to reduce vehicle miles traveled to reduce their operational impacts in disadvantaged communities. Increase monitoring and enforcement of these requirements.
11	Support sufficient charging and refueling stations along freight corridors.
12	Increase the required reduction of carbon intensity of fuels under the Low Carbon Fuel Standard from the current 10% to 30% by 2030.
13	Eliminate the assumption in the Low Carbon Fuel Standard Life Cycle Analysis (LCFSLCA) that methane is a necessary by-product of dairies. This will eliminate the awarding of avoided methane emissions credits to dairies. Instead, methane emissions must count as an emissions debit against the fuel. Conduct a new LCFSLCA using standard methodologies applied to all organic and artificial chemical energy sources.
14	Promote clean and renewable energy sources to power vehicles. Plan electric vehicle programs and electricity supply together. Increase coordination among energy and transportation agencies to help ensure the success of supporting initiatives.
15	Study the emissions reduction benefits from increasing gasoline prices.
16	In support of state electric vehicle goals, such as SB 1275, the state must develop and provide funding for a program that ensures deep penetration of electric vehicle use and charging capacity in disadvantaged communities. This must include a pilot program that

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	does the following: a. Funds demonstration program placing new and used electric vehicles, along with associated charging and maintenance infrastructure, in at least seven low-income and disadvantaged communities at the residential level, to evaluate best practices and accelerate their integration in these communities statewide b. Ensures a proper diversity of population density: urban, suburban, and rural areas c. Prioritizes areas with aging infrastructure d. Focuses on expanding access to electric vehicle use in schools in disadvantaged communities
17	Accelerate ownership and access to zero-emission vehicle technologies, through the following strategies: a. Universal application and point-of-sale rebates or vouchers for new and used electric vehicle and other clean energy programs in place by June 2017 b. Rebates for used electric vehicles available (outside of Enhanced Fleet Modernization Program (EFMP) and Plus-up project) by June 2017 c. A minimum of 20% of non-luxury multi-unit dwellings have electric vehicle charging stations (or stubs) by 2020 d. A minimum of 25% of state investments in electric vehicle charging station infrastructure occurs within disadvantaged communities e. ARB's "Electric Vehicle Car sharing Program" funds at least 50 projects by 2020 f. Employment and Education Shuttle rebates to fund at least 20 ZEV or hybrid vanpooling and carpooling (including support for charging infrastructure) projects that support community-serving workforce training programs and employment by 2020 g. At least 20 "last-mile" free electric shuttle/bus programs providing transportation to community-serving facilities (e.g., clinics, community colleges, community centers, hospitals, government facilities, job centers, shopping centers) in place by 2020. There must be a regionalized effort to promote integrated solutions connecting community members from public transit to their destination. h. All school districts in disadvantaged communities have electric school bus fleets by 2020. i. Provide incentives to small-businesses (particularly those heavily reliant upon goods movement) for the purchase or use of zero-emission medium- and heavy-duty vehicles. j. Support and finance zero-emission truck and bus initiatives outlined in SB 1204.
18	Ensure that clean transportation infrastructure and mobility options are available in rural, indigenous, and small communities. Specifically: a. Fund and support clean transportation options for low-density communities with less cars and transportation resources. Vanpooling, community-driven ride-sharing (i.e., Green Raiteros in Huron, California), more frequent buses, and bus routes are examples of more mobility options that are more targeted for rural and small communities. b. Target clean mobility incentives to farmworkers who may not have vehicles or need smog tests for polluting vehicles.

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19	Improve access to transportation options (active transport, mass transit, ride-sharing) through the following recommendations: a. Promote more effective outreach and information sharing about zero-emission vehicles and other clean mobility options, as well as information about daily air quality conditions. 1. Work with the car industry and ethnic ad agencies on advertising and more targeted campaigning in multiple languages. 2. Get information out through a cell phone application that is free and available in multiple languages. 3. Work with community-based organizations to ensure that this information is available to community members who do not have access to a smart phone. b. Promote and fund community-driven, community-owned, affordable and accessible ZEV shared mobility options in environmental justice communities.
20	All SCSs and transportation project analyses, policies, and investments must include metrics around displacement and gentrification. Non-displacement of residents must be met as part of the permitting process and before awarding funds, and methods for enforcement must be identified.
21	California must promote a culture shift to more efficient and clean mobility options such as mass transit and active transportation. Streamline and promote widespread access to clean mobility options using the following recommendations: a. Promote and incentivize telecommuting as a way to reduce vehicle miles travelled, particularly for communities that have been displaced from areas closer to their work. b. Decrease vehicles idling by working with appropriate stakeholders to retime traffic lights, develop adaptive traffic management systems using real-time data, promote the use of signage or other efforts to reduce idling at drive-throughs and other businesses. c. Partner with businesses and provide outreach, education, and incentives to encourage truck drivers and companies to reduce emissions, reduce idling, and promote more a more efficient use of medium- and heavy-duty vehicles. d. Encourage more ride-sharing by employers.
22	The state must support research on the following topics: a. Growth regional growth projections with an assessment of clean mobility needs in the future. b. Updated and more targeted, scaled down science on the cumulative impacts of pollutants within environmental justice communities. c. Unintended consequences from clean transportation policies and investments on low-income individuals and environmental justice communities (e.g. displacement, impacts on vehicle miles traveled). d. Impacts of road use fees to generate revenue and discourage driving.
Partnership with Environmental Justice Communities	
23	Through robust community participation, ground-truth the actual impacts of program planning and implementation. Strategies include the following: a. Conduct and prioritize community needs, network analysis, and mobility assessments. Transportation agencies and planning groups must be mandated to address mobility gaps in EJ communities and for seniors, low-income populations,

Transportation	
	and people with disabilities. b. Conduct equity analyses when evaluating and implementing transportation options to prevent adverse secondary effects in disadvantaged communities (e.g., the Los Angeles FasTrak program which resulted in more vehicles on artery streets, creating even worse air quality problems for those communities) c. Conduct equity analyses in transportation projects to ensure that investments go to those most impacted by pollution and economic disparities d. Benchmark and track where projects are implemented to measure the emission reduction progress and economic return in disadvantaged communities e. Measure emissions reductions by per capita VMT
Coordination	
24	ARB must work with the California Energy Commission through its EPIC and ARFVTP funding sources must support the advancement of clean transportation innovations within environmental justice communities and must engage community-based organizations in investment plan development.
25	Sustainable Community Strategies (SCSs) must be improved in the following ways: a. SCS compliance with ARB greenhouse gas reduction targets must only be based on documented land use and transportation changes. b. ARB setting strong target for all Metropolitan Planning Organizations. Eliminate the "5 and 10" default for Regional Transportation Plans (RTPs). c. Metropolitan Planning Organizations must only be allowed to authorize implementation of projects that are included in the most recent SCS. d. Transit agencies must be required to adhere to projected routes and costs in the adopted SCS unless alternatives demonstrate increased emission reductions while maintaining or improving access to alternative transportation choices. e. Implementation of SCSs must prioritize investments in disadvantaged communities. f. ARB must consider California Transportation Plan 2040 and Regional Transportation Plan Update guidelines (see also section on improving coordination).
26	Strengthen oversight by state of local government activities. ARB must provide detailed guidance on local zoning to carry out climate and air quality priorities. Furthermore, state agencies need to give local transit authorities more direction about anti-discriminatory Title VI expectations, to promote more equitable funding of transit options, especially regarding fare increases and route changes that may limit access to transit.
27	Financially support transit operations and restoration of transit service and routes and expansion of services where lacking in disadvantaged communities.
28	Establish better interagency coordination among state, federal, and local agencies when planning projects and awarding funding. The following outline specific opportunities for improving coordination: a. Coordination must be transparent and actively seek community and stakeholder input. b. ARB must consider the California Transportation Plan 2040 and Regional Plan Update guidelines in developing and implementing its own planning documents, including the Scoping Plan. c. ARB must improve coordination with California Environmental Protection Agency (CalEPA) and the United States Environmental Protection Agency (U.S. EPA) to

Transportation	
	promote better scientific research on pollution impacts within environmental justice communities and pursue initiatives to prevent harmful cumulative impacts. d. ARB, California Public Utilities Commission, and California Energy Commission must better coordinate electricity planning and the planning of program supporting electric vehicle use to help maximize the use of renewable electricity for transportation, to ensure infrastructure needs are met for electric vehicles, and to better understand opportunities for renewable integration efforts. e. CalTrans and local governments must prioritize greenhouse gas reduction and public health and safety in funding activities and policies.
Economic Opportunity	
29	Prioritize the advancement of economic benefits such as job and workforce training opportunities in disadvantaged communities. Build skills and capacities locally, so infrastructure can be maintained and further advanced.
30	Technical Assistance and Marketing, Education, and Outreach (ME&O) – The state must dedicate funds toward helping less-resourced communities and small businesses take advantage of clean transportation investment opportunities. It is important to develop community-specific technical assistance and ME&O plans to maximize efficacy of outreach efforts.
31	Job Placement and Training – The state must dedicate resources for community-based organizations that support clean energy career pathways for disadvantaged community members. These pathways must include but not be limited to: job placement, apprenticeship opportunities, and building skills that are transferable to a broad set of clean energy jobs.
32	Ownership and Access – The state must support the increased access to and ownership of clean energy and clean transportation technologies and mobility options in disadvantaged communities (discussed in more detail above).

Natural and Working Lands, Agriculture, Waste	
Coordination	
1	ARB and other state agencies (including the California Public Utilities Commission, California Energy Commission, Office of Environmental Health Hazard Assessment, Department of Toxic Substances Control, and CalRecycle) must undertake a process to examine the growing evidence that biomass and biogenic carbon have real and significant climate impacts, examine the long-distance transport contribution to overall greenhouse gas impacts of burning biomass material, and examine assumptions of health and environmental impacts from burning various materials considered to be biomass, including the impacts of biomass ash. Ash from burning biomass, urban wood waste, and other materials has been found to be dumped on California agricultural land in recent years, and this ash has been found to be contaminated with dioxin and other health-threatening chemicals. Before pursuing increased burning of biomass in California, ARB, the Natural Resources Agency, and related agencies must investigate where ash from the existing burning of biomass is ultimately being dumped, the environmental justice impacts and impact on agriculture, and the cost of biomass ash handling in California. This is of growing importance as new EPA regulations allow for the increased burning of waste and biomass at industrial facilities (i.e. industrial boilers, cement kilns), and as material deemed to be biomass are exempt from compliance obligations under California's Cap and Trade program.
2	Establish better coordination between ARB, Caltrans, the California Energy Commission, CalRecycle, the Department of Toxic Substances Control, and other agencies whose purview include Natural Lands, Agriculture, and Waste-related emissions. Together, these agencies must be available for consultation with EJAC to support plan and policy development.
Equity	
3	Data Collection – timely and comprehensive data collection is essential to avoiding negative impacts and ensuring co-benefits. Such data must include: a. emissions from forestry and wood products, since forest management is a net source of greenhouse gases. b. wildlife habitat (including agricultural land) to facilitate conservation and link to the greenbelt. c. metrics to quantify the greenhouse gas benefits of managing natural and working lands. Achieve consensus on how to measure greenhouse gas emissions reductions from activities in natural systems. Discuss and agree upon these metrics with the interagency working group and community stakeholders.
4	No credits must be given for landfill or for biodigestors for greenhouse gas avoidance. The state's biomass garbage and all other incinerators, including but not limited to gasification, will be treated like other carbon-intensive industries and pay for all carbon emissions under California's Cap and Trade program. At a bare minimum, the state must align with the requirements of the EPA's Clean Power Plan (CPP) on this point. The CPP clearly recognizes that carbon dioxide emissions from burning the fossil fuel-based portion of garbage (i.e., plastics) must be counted. CPP also acknowledges that incineration undermines waste prevention programs, which have significant climate benefits. Beyond this minimum accounting requirement, the state already recognizes the benefits of using compost (from food, paper, wood, yard waste, and other natural materials in the waste stream) to store carbon in the soil. Thus, the carbon dioxide emissions of burning such materials must also be counted in the state's Cap and Trade program. Additionally, the state must revoke all existing incinerator carbon credits. Disincentivize and discourage locating biomass and

	digesters in disadvantaged communities or in close proximity to housing.
5	Healthy Soils – a critical element to land and waste management is soil regeneration. Strategies include: a. Implement climate action plan goals for urban agriculture and community gardens with integrated composting strategies. b. Research and market development for creation, storage, and application of compost for environmental health protection and carbon sequestration, the composting of woody materials together with manure, and agricultural land application of mulch from excess woody materials. c. Promote urban hydroponics and aquaponics. d. Ban agricultural burning of waste; Provide a baseline credit for applying carbon back to soils. e. Promote composting by providing education and assistance to implement composting in all communities. Support the expansion of infrastructure for composting where necessary, and map out the mechanisms for composting in each community. Share best practices between municipalities to ensure all residents have access to programs. Incentivize neighborhoods to compost food waste from schools and at the community level. Establish communication plans that show Californians how to compost and motivate people. f. Promote biologically intensive (regenerative organic) agriculture for the variety of agricultural, environmental, and economic benefits it provides, and to rebuild soil g. Stop overgrazing h. Do not strip forest waste from the mountains to feed biomass plants; instead, sequester the carbon on site through chipping and burying. i. Manage forests to maintain a solid canopy and replant open areas immediately. j. Build clean air, water, and healthy soil consciousness aggressively. k. Mandate that all communities balance natural and working lands to sequester carbon and uptake pollution to replenish natural systems. l. Develop a simple metric for soil carbon or soil organic matter (SOM), to set up a meaningful reward system for carbon farmers who meet an obvious threshold of SOM or carbon sequestration.
6	Waste diversion – a. Establish waste diversion programs like “pay as you throw,” where people pay per pick up amount b. To minimize emissions from waste and recycling trucks fleets, establish more efficient routes and use cleaner fuels. c. Enforce the mandate that commercial buildings have recycling programs d. Set composting as the primary goal for incentivizing waste diversion. Waste needs to be composted and recycled as close as possible to its point of origin and/or collection. Communities must take full ownership of their waste and not export it to disadvantaged communities, and must recognize that impacts stem from not only the waste, but also the use of diesel trucks to carry the waste away. Encourage the use of waste as a resource and support infrastructure investments that maximize recycling and composting programs. Ensure that environmental justice communities do not become the repositories of this excess waste. Finished compost can be exported where it’s needed to support forestry and agriculture focused carbon sequestration goals e. Divert dairy waste as fertilizer and for carbon sequestration before it can be converted to methane.

7	Waste from "renewable resources" like geothermal need to be evaluated, managed, and waste and other externalities must be considered, in the determination of renewable energy sources. Do not use or provide financial support or investment to gasification and biofuels as qualifying renewable options.
8	Develop more local agricultural processing centers so food is not being trucked long distances. Introduce a scoring system for food that indicates food-miles traveled. Encourage local food processing of food and meat, and educate people on the greenhouse gas reduction benefits of not eating meat. Establish public financing for healthy, environmentally sound food sources.
9	Restrict sprawl— a. use productive lands for production. Do not use usable agricultural lands for solar and wind farm projects. Such projects produce only a few, short-term jobs and the electricity is sent to large population centers, which results in farmworker displacement and a net job loss. Recognize that with new agricultural technologies, lands seen as "marginal" are greatly reduced. If solar or wind farms are created, provide job training locally for long-term, well-paying jobs operating and maintaining those technologies. b. encourage less driving. c. Support lifecycle analyses of sprawling developments to determine long-term economic and societal costs versus infill projects, to identify actual costs. d. Support local training, education, and incentives for architects, planners, engineers, and developers to design and develop infill building projects rather than sprawling developments. Provide incentives such as guarantees for a more streamlined planning and approval processes for infill projects. e. Protect greenspace and expand it in disadvantaged communities, insure equity though better enforcement of SB375/SCSs. f. Identify, develop, and implement policy tools to prevent the current trend of gentrification and displacement of local residents, businesses and people of color, pushing residents and people of color out of their communities. Do not provide greenhouse gas reduction funds for improvement projects that will displace current local residents, businesses, and nonprofits.
10	Encourage watershed inventory and awareness. We need better infrastructure and drainage in low-income communities to eliminate pooling polluted water on neighborhood streets and property; and that addresses the high pollution levels that lead to asthma and other illnesses.
11	Integrate urban forestry within local communities. Revise the goal of increasing tree canopy by 5% by 2030 to 20%–30% by 2030. Conduct research to identify methods of achieving that increase given drought conditions. Include urban tree and greenspace maintenance, not just planting/creation.
12	Build biomass, do not burn biomass. Instead of incinerating biomass from trees and municipal solid waste, which puts more carbon dioxide into air immediately, we recommend ARB expand its work to identify and support methods for returning that carbon to the soil, such as composting biomass together with manure. Investigate the growing evidence of carbon sequestration benefits from applying compost to grasslands (resources include the Marin Carbon Project and UC Berkeley Dept. of Environmental Science researchers). Additional benefits of such measures are the reduction of methane and nitrogen oxides, reduced synthetic fertilizer imports, and reduced water use.
13	Identify and establish effective methods for implementing food rescue programs, with quality controls to avoid dumping inedible food on communities. Identify strategies for

	getting edible food to those who need it. Incentivize these programs and promote communication plans for projects, so all communities have access to successful plans.
14	Push innovation on measuring waste and learning how to conduct activities. Overcome infrastructure barriers in dealing with waste.
15	Perform a complete lifecycle analysis of dairy and other bio-digester technology and related infrastructure investment. If biogas from dairies is converted to bio-methane, ARB must mandate that vehicles servicing digesters and converters utilize that gas as a primary fuel source. This is a better use of the fuel than building new pipelines and related infrastructure to transport the gas to other locations.
16	Expand the definition of "urban forestry" to include "rural desert urban forestry," "rural/urban interfaces," and "rural desert communities," so those areas can qualify for funds to support tree planting.
17	Support community land trusts to address gentrification and preserve affordability and access
18	Research and identify alternatives for dumping biosolids (sewage sludge) in disadvantaged communities. Pilot a program to explore and demonstrate better options.
Economic Opportunity	
19	Quantify potential local jobs created from regenerating forests, both urban and rural. Include jobs for maintenance of all green environments, and increase funding to support local workforce development in support of this industry. Fund green infrastructure technician training and tree care maintenance jobs for green space.
Partnership with Environmental Justice Communities	
20	In consultation with all stakeholders including tribal councils and local communities, design and implement healthy forest management strategies that ensure sustainability of the existing forest canopy and decrease extreme wildfire events.
21	ARB must implement a public outreach and education campaign on the climate and co-benefits of urban agra-forestry, as well as the myriad benefits of urban greening in creating livable, healthy communities.
22	Continue to work with local communities and other stakeholders to refine metrics and tools that better quantify the greenhouse gas benefits and co-benefits of managing natural and working lands, including urban green spaces and trees. Achieve consensus on how to measure greenhouse gas emissions reductions from activities in natural systems.

California Climate Investments	
Long-Term Vision	
1	Emphasize regulations that force the advancement of clean technologies. Ensure that near-term technologies do not adversely impact communities and long-term investments moves towards zero emissions.
Equity	
2	Greenhouse Gas Reduction Fund projects must be transformative for disadvantaged communities, in ways defined by each community themselves. California climate investments must take a place-based, regional approach focused on the unique needs of the people of each region, and prioritize projects that boost regional capabilities and economies. The state must support the ability of communities to use technology to communicate progress to the state. These projects must never result in displacement.
3	Within SB 535, further prioritize attention and funding for disadvantaged communities that experience increased greenhouse gas emissions despite implementation of AB 32 programs.
4	Create a formula for funding allocations that ensures investments are equally distributed across DACs in California.
5	To ensure adequate and continued funding of programs, EJ communities must have access to additional funding beyond Cap-and-Trade and the Greenhouse Gas Reduction Fund.
6	No funding must be given to fossil fuel-based industries or any regulated entities under AB 32.
7	Increase accountability of all grantees with regard to reductions claimed for their Greenhouse Gas Reduction Fund (GGRF) funded activities. Provide tools and training so communities can monitor progress based on data.
Economic Opportunity	
8	Spend Greenhouse Gas Reduction Funds (GGRFs) to incentivize local economic development so people can get well-paying local jobs closer to their homes and avoid displacement. Also incentivize local contracting to substantially involved community-based organizations so communities can build capacity at the local level. Community-based organizations must be required to demonstrate community support before receiving funds. Create a system that allows nonprofit organizations to earn points or access to the funds for providing improvements in Environmental Justice communities. For example, larger projects could include nonprofits as part of their proposals, or nonprofits could tap into Cap-and-Trade funds to help supplement their grants.
Partnership with Environmental Justice Communities	
9	The EJAC must help with outreach, accountability, and helping agencies prioritize investments. We must also inform the funding guidelines and investment plan.
10	The Greenhouse Gas Reduction Fund (GGRF) program staff representatives must attend EJAC meetings to provide information and gather input from EJAC members. ARB climate investment staff must identify ways to provide information to EJAC communities and gather community feedback in response. Insure community outreach and engagement is empowered to hold agencies accountable to help them prioritize activities and continually inform guidelines as they relate to ay investment plan.
11	Innovation must come from both the communities involved and ARB. ARB must support K–12 and local college educational programs that educate students about climate change and teach them how to use tools to address it (e.g., students wearing technology that shows the air quality). ARB must work with schools and local colleges to support environmental

	literacy and sponsor multigenerational understanding of climate change and its impacts on the larger community. Funds gathered through polluter violation fees must be used to pay for educational programs in the affected communities.