

December 16, 2016

The Honorable Mary Nichols, Chair   
California Air Resources Board   
1001 I Street  
Sacramento, CA 95814

**Re: Comments on 2030 Scoping Plan Update – Discussion Draft**

Dear Chair Nichols:

Thank you for the continued climate change leadership of the California Air Resources Board. The Public Health Institute’s Center for Climate Change and Health Institute is dedicated to tackling climate change - the greatest health threat of this century - while promoting healthy and equitable communities through education, advocacy, collaboration, and research in the US and globally.

We appreciate the opportunity to provide preliminary comments on the Discussion Draft of the 2030 Target Scoping Plan Update, but note that it is difficult to assess the potential health and equity implications of the plan absent critical sections, most notably those that address the public health analysis, household economic impacts, public education and outreach, and disadvantaged communities. It is disappointing that these sections are not available to allow for greater public input on these issues.

**Provide sector-specific and strategy-specific estimates of the range of GHGE reductions**

The introduction addresses the requirements of AB197 to include projected GHGE reductions, air pollution reductions, and avoided social costs associated with each emissions reduction measure. Inclusion of these analyses, as well as sector-specific goals and projected emissions reductions, is critical for understanding and monitoring the effectiveness of the scoping plan.

**Climate Impacts**

We recognize the ambitious nature of the State’s greenhouse gas emissions goals to reduce emissions to levels that would hold global temperatures to 2°C. That goal

was established prior to more recent scientific evidence that the global environmental impacts of climate change are happening more quickly than anticipated. For that reason, the Paris Agreement calls for limiting warming “to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change.” The more aggressively we reduce GHGE, the less harmful and costly the health impacts will be.

The review of climate impacts should include information about impacts to date on health and health equity. For example, southern California wildfires have been associated with increased hospitalizations and emergency department visits[[1]](#footnote-1); thousands of people in the Central Valley lost household access to water for drinking and sanitation due to the drought.[[2]](#footnote-2) Physicians are seeing the health impacts of climate change in patients and communities around the nation, with disproportionate impacts on low income and communities of color, and on those with pre-existing health conditions.[[3]](#footnote-3)

**Improving Public Health and Environmental Justice**

We strongly support an emphasis on environmental justice and health equity in the scoping plan, and appreciate the analysis that the root causes of climate change and health inequities/environmental injustice are the same. The brief section on improving public health should acknowledge that improved air quality is only one of the many ways in which the scoping plan may impact public health.

While neither the public health nor environmental justice analyses are included in the current draft, we want to emphasize the importance of conducting a complete life-cycle health and health equity impact assessment of the full range of emissions reductions strategies in the scoping plan. The HIA should allow for a full understanding of the potential beneficial and adverse health impacts and associated costs, including an assessment of the relative health benefits and health costs of different strategies within each sector. The health impacts should go beyond those related to air pollution to include, e.g. the multiple chronic disease prevention benefits associated with reduced vehicle miles traveled and associated land use patterns; physical and mental health benefits associated with urban greening and green infrastructure; potential health impacts of biomass, storage technologies, etc.). The scoping plan should also include health and health equity metrics. Forecasts of the health impacts of a range of climate impacts, and monetized costs of those impacts, should also be included.

**Key Sectors**

We appreciate the thoughtfulness of the discussion about cross-sector impacts, but encourage ARB to also include more discussion of the impacts of climate change on strategies and targets, e.g. rising temperatures and energy use for cooling; drought impacts on hydroelectric, etc.

**Low Carbon Energy**

Building sector strategies to increase energy efficiency are inadequately addressed, particularly in regard to existing buildings. Weatherization has significant potential co-benefits, including health benefits if done properly, and reduced fuel poverty and energy injustice. However, strategies to ensure that weatherization and other energy efficiency measures in buildings be accessible to low income homeowners and renters. Building electrification to replace use of natural gas for home heating and cooling is also an important strategy that merits greater emphasis.

Given the current positive trajectory for meeting California’s existing Renewable Portfolio Standard, please consider establishing more ambitious renewable energy targets.

**Industry**

We strongly encourage greater emphasis ondirect caps on refinery and other large stationery sources, to reduce more rapidly the continued exposure of fence-line communities to air pollution.

Transportation

*Reduction of vehicle miles traveled should be a top priority, in light of the huge potential public health benefits that would accrue from feasible increases in active transportation (walking, biking, public transit use)*. The draft significantly underemphasizes VMT reduction, and should incorporate more specificity about strategies, e.g. greater state investment in walk and bike infrastructure and public transit, development of more alternatives to single auto travel in rural areas (e.g. van shuttles for agricultural workers, shared ride systems), and transit/bus subsidies for students, youth, and low income individuals. It is also important to ensure that strategies for VMT reduction integrate climate adaptation needs, e.g. use of urban greening and green infrastructure to reduce heat that limits active transportation.

Specific and ambitious goals for VMT reduction should be included in the scoping plan. Additionally, the plan should better integrate implementation of SB375 and strategies to ensure that local and regional planning and transportation funding is more consistent with meeting VMT and GHG reduction goals.

We support integration of the Cleaner Freight Coalition recommendations into the scoping plan section on sustainable freight. Focusing clean vehicle investments in the freight sector would provide high value, from a health perspective.

We are concerned about the rapid introduction of the use of autonomous vehicles absent better analysis of the potential health and climate impacts. While autonomous vehicles have potential health benefits (e.g. reduced motor vehicle injuries), the decoupling of driving from auto use could also significantly increase auto use, with significant adverse impacts on physical activity as well as congestion. Absent incentives to ensure that autonomous vehicles are actually low-zero emissions, increase auto use could also increase emissions.

**Agriculture and Natural Working Lands**

We encourage ARB to significantly strengthen the goals for farmland conservation and reduction of farm conversion. Farmland conservation is vitally important for the development of healthy and sustainable regional food systems that can support greater access to affordable and healthy foods, with associated important and significant health and food security benefits. It is critical that expansion of green space and urban forestry also be integrated across other sectors, with their variety of health benefits.

**Waste Management**

We strongly support inclusion of the SB1383 goals to achieve an edible food waste recovery goal of 20% reduction from 2016 levels by 2025.

**Water**

We encourage ARB to incorporate assessment of the impacts of fossil fuel extraction and other key pollution sources on California’s precious water sources, in relation to the potential knock-on effects energy requirements to provide water for a growing population.

**Oil and Gas Extraction Sectors**

The discussion of the oil and gas extraction sector addresses only the emissions of GHG from extraction activities. We urge ARB to consider the GHGE implications of the continued extraction of fossil fuels in California and integrate strategies to reduce fossil fuels extraction and new fossil fuels based infrastructure. In-state California GHGE emissions from account for only 1% of worldwide emissions.[[4]](#footnote-4) But California ranks third in the

nation for crude oil production,[[5]](#footnote-5) as well as significant quantities of natural gas, and exports a large quantity of oil products each year.[[6]](#footnote-6) Climate change is a global problem, and must be addressed as such.

A recent health impact assessment on the health impacts to Oakland residents associated with the combustion of coal exported from Oakland calculated that cumulatively the combustion of Oakland-exported coal would produce a significant

fraction of the total amount of the world’s remaining carbon budget to stay within a 20C warming limit. The report concluded that reducing coal exports from Oakland would be a reasonable and effective method for Oakland to contribute to the effort to protect public health globally and in Oakland.[[7]](#footnote-7) We believe an analogous analysis of the potential impacts on Californians associated with the burning of fossil fuels exported from California is warranted, and should be integrated into the State’s policy considerations for reducing GHGE.

Similarly, we believe that responsible climate change leadership requires that California divest its public pension funds from fossil fuel investments.

Finally, while the public outreach and education component is not yet available, we would like to strongly encourage ARB to invest very significantly in a comprehensive, coordinated, and cohesive social marketing campaign that addresses the urgency of transformative climate action and the role of policy, systems, and behavior change in achieving it. Current state education campaigns are splintered, failing to connect the dots between actions across sectors or to connect the dots between climate change and human health impacts - a strong motivator for support of climate action.[[8]](#footnote-8)

We applaud ARB for its leadership on climate change, and look forward to future opportunities for input into the up-dated Scoping Plan and other efforts to reduce California’s climate footprint while promoting healthy and equitable communities.

Sincerely,



Linda Rudolph, MD, MPH  
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Public Health Institute

1. <http://www.fs.fed.us/rm/pubs_journals/2016/rmrs_2016_kochi_i001.pdf> [↑](#footnote-ref-1)
2. <http://www.motherjones.com/environment/2015/07/drought-5000-californians-dont-have-running-water> [↑](#footnote-ref-2)
3. [http://climatehealthconnect.org/wpcontent/uploads/2016/09/PhysicianSurveys.pdf](http://climatehealthconnect.org/wp-content/uploads/2016/09/PhysicianSurveys.pdf) [↑](#footnote-ref-3)
4. <http://www.latimes.com/local/california/la-me-climate-fight-20161108-story.html> [↑](#footnote-ref-4)
5. <http://www.eia.gov/state/?sid=CA> [↑](#footnote-ref-5)
6. <http://www.nytimes.com/2012/03/09/us/oil-exports-have-become-huge-business-in-the-san-francisco-bay-area.html> [↑](#footnote-ref-6)
7. <http://www.humanimpact.org/wp-content/uploads/Assessment_Health_Safety_Coal_Oakland.pdf> [↑](#footnote-ref-7)
8. <https://www.scientificamerican.com/article/climate-change-impact-on-human-health-overlooked/> [↑](#footnote-ref-8)