

April 28, 2014

California Air Resources Board  
1001 "I" Street  
Sacramento, CA 95814

**Re: Add Scoping Plan Element to Anticipate and Avoid Environmental and Occupational Health Impacts of New Energy and Energy Conservation Technologies**

Dear Chairman Nichols and Members of the Board:

Thank you for the opportunity to submit comments on the proposed revision to the Scoping Plan for AB 32 and the California Climate Change Program.

The progress of the Board and the State of California in devising and implementing a climate change program is truly inspiring and provides a model for the world. People say things like this a lot, but in this case it is true.

**I am writing to ask you to consider developing a proactive element to minimize health or community impacts from the transition to new energy and energy conservation technologies.**

The Scoping Plan now has many strategies intended to reduce greenhouse emissions from multiple sectors while maximizing health benefits and avoiding impacts on disadvantaged communities. The Scoping plan also has one strategy to manage its own impacts by applying adaptive management to address any unanticipated impacts of the cap and trade program.

Implementation of the scoping plan strategies to reduce greenhouse emissions will lead to a **transition to new technologies** for energy generation, storage, and transmission and for energy conservation. Use of such technologies can result in reduced greenhouse emissions. However, the production and use of these technologies could have environmental and occupational health impacts as a result of materials extraction, fabrication, deployment, and end-of-life management.

Of particular concern would be emissions or occupational exposure to toxic materials including metals that are highly persistent in the environment. It is not unreasonable to suppose that increased reliance on batteries, for example, could result in the need for additional capacity for recycling of potentially toxic materials. Recycling and disassembly of materials can generate localized emission increases and substantial impacts. Materials used in buildings may contribute to indoor air pollution.

It would be in keeping with the goals of AB 32 and the Board's own goal of contributing to sustainable approaches to **design such impacts out of the system at the outset**. At a minimum, it would be important to prevent localized impacts on communities or vulnerable populations. I am sure that no one would want to see any emissions from, say, lead smelting, in proximity to California communities. It is time to design for zero emissions for toxic persistent compounds as we move toward zero or near-zero emissions of greenhouse gases.

It could also be valuable to consider ways to avoid exporting of such practices or materials to places with limited environmental controls. The example of consumer electronics products is one where the technologies evolved quickly with little or no advance attention to the environmental effects of recycling practices or the waste stream, and many impacts are distributed to people in poor countries. We would not want to see this occur with green energy products.

Just as the Board has considered ways to guard against potential future impacts of its cap and trade program in communities, it could consider ways to guard against impacts of the transitions in technologies. The Board could add an element to its portfolio in the Scoping Plan to investigate and track the major trajectories in energy and energy conservation technologies to identify potential for adverse lifecycle impacts for workers and communities and to take steps at the design stage to avoid such impacts.

This would be consistent with the direction in AB 32 to implement a climate change program that achieves maximum health benefits for the people of the State. This could also be part of the effort to adopt appropriate metrics and approaches for environmental justice communities, an important topic for the scoping plan. It could have the additional benefit of providing models that could achieve health benefits globally.

I hope that you might consider adding this as an area for inquiry in the revised scoping plan.

Thank you for your consideration of these comments.

Very truly yours,  
*(Submitted electronically)*  
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Cc: Martha Dina Argüello, Chair, Environmental Justice Advisory Committee

\*for identification only