



Manufacturing:

Recommendation: Cement Manufacturing is one of the main industries that significantly contributes to emissions and will continue to increase. CARB has mentioned, “there are additional opportunities to reduce GHG emissions from cement manufacturing via the combination of fuel-switching to low-carbon fuels (e.g., biomethane, municipal solid waste, biochar), increased blending of non-clinker materials, and efficiency improvements.” This includes the use of carbon sequestration. CARB has reported that “the state’s eight cement plants account for about 2% of California’s total greenhouse gas emissions.” However, there is no mention of what other countries are doing to reduce their emissions from this industry and how these practices could be implemented within California.

Separating economic growth with the consumption of emissions can be a potential solution that CARB can implement as some other countries use this strategy to mitigate these emissions. For example, ¹The European Green Deal will transform The European Union into a modern, resource-efficient, and competitive economy, ensuring no net emissions of greenhouse gasses by 2050, economic growth decoupled from resource use, and no person and no place left behind. The European Commission adopted a set of proposals to make the European Union’s climate, energy, transport, and taxation policies fit for reducing net greenhouse gas emissions by at least 55% by 2030.

Recommendation: While plastic is considered some of the best building materials. CARB needs to still identify specific examples of alternative technologies that the cement industry can utilize to mitigate emissions. For example, incorporating recycling practices, such as crushing down the construction rubble and using it as building blocks. Other possible recycling practices can be the use of steel which is only ²85% reused and is the most recycled industrial material.

¹ [Delivering the European Green Deal | European Commission \(europa.eu\)](#) *Delivering the European Green Deal*

² [Alternatives to Cement to Make Construction More Sustainable | OpenMind \(bbvaopenmind.com\)](#)

Recommendation: Glass manufacturing is one of the main three industries that contribute to producing emissions within California and CARB must detail how much is being emitted. Providing a chart or statistics will give a more comprehensive result on how these industries contribute the most emissions. CARB needs to address more specific alternatives for this industry. CARB mentions fuel switching as an option but should include an example of how transparent wood can be used as an alternative for glass production and exploring projects such as ³Enviro Ash. This project brings together the 6 foundation industries and identifies the opportunities to convert the waste that these industries produce into raw materials and provide cost-effective routes.

Recommendation: Manufacturing is a common industry group in which workers from low income and disadvantaged communities will be directly impacted by proposed Scoping Plan changes. CARB should emphasize examples of how manufacturing industries can ensure just transitions for the workers and needs to clarify how just transitions could be equitably implemented. For example, when workers are transitioning from oil and gas refineries to renewable energy the needs of the workers and their families must be equitably treated in comparison to executives and investors.

CARB should not label “green jobs” as “Just Transition.” That definition is vague and already there is the connotation of low wages and poor working conditions associated with many of those jobs. Examples of Just Transition should include education on how the workers can make the transition, workforce training, and any policies that may affect their families. ⁴“In this transition, prioritizing fairness for workers and communities that have historically depended on fossil energy economies will be important in what many refer to as a just transition” (Resources for the Future). This can lead to policy options for facilitating the transition easily and provides an opportunity for protection of the workers and their families.

Recommendation: CARB needs to include a timeline of transitioning to renewable energy that is based on existing technological, economic, and capacity limitations. This includes infrastructure upgrading and/or replacement. CARB must clearly delineate these factors and identify potential solutions such as regulatory action needed or estimated future budget contribution such as industry incentives.

Recommendation: CARB needs to address the transparency of providing information on different technologies, substituted materials, and feasibility of these technologies. This includes the ability to be done or not enough research behind it that would be able to support these strategies. CARB needs to be more transparent about providing this information and sharing it

³ *Deployment of End-to-End Process (DEEP) Control*
[Glass futures - Alternative fuel switching technologies for the glass industry \(glass-futures.org\)](https://www.glass-futures.org/)

⁴ *Enabling Fairness for Energy Workers and Communities in Transition*
[Enabling Fairness for Energy Workers and Communities in Transition \(rff.org\)](https://www.rff.org/)

with the public. There could be examples from other countries or states that can be used as a guide to receive information of this transition. ⁵Sweden, Switzerland, Norway, Finland, and Denmark are all countries that are leading the transition and should be looked at for strategies.

Recommendation: CARB has acknowledged the short-lived pollutants of “⁶black carbon, methane, and fluorinated gasses including hydrofluorocarbons [HFCs]).” CARB must include some detail on how it will reduce these emissions from manufacturing and commit to setting HFC reduction timelines and targets that match or exceed the EPA’s “AIM Act.” ⁷⁸ With regard to Black Carbon. CARB relies almost completely on the already out-of-date AB1383 SLCP Plan which is about to be revised including avoiding the use of “biomethane” for transportation fuel when virtually the entire heavy, medium and light duty industries are heavily engaged in transition to electric or hydrogen/electric vehicles. Inclusion of that fuel both in the Scoping Plan and LCFS just confuses manufacturers and other stakeholders as they make the investments.

Recommendation: CARB should have a section on how workforce development and education would impact the disadvantaged communities. CARB committed to developing a program that provides much needed information and support to disadvantaged communities where the majority of manufacturing workers reside. This would include a discussion of various strategies the state could support such as incentives for families or increasing the wages for new manufacturing job markets. Providing information on how transitioning will benefit workers and their families, manufacturers and investors. CARB must start now with creating union climate jobs to transition workers into good paying union jobs that support their families as it transforms to clean energy infrastructure to achieve climate goals. Creating union climate programs and training will be a smoother process for all parties and will not be a financial burden on families during that time. In addition to training and programs, the jobs being obtained by these workers must be quality jobs in terms of compensation, benefits, having access to a union representative, and additional training as needed. The scoping plan describes the One Million California Climate Job Plan which is a great start, however, we must think outside the norm and start making the transition now.

Recommendation: CARB must comprise a comprehensive plan to reduce emissions in disadvantaged communities first. The scoping plan acknowledges that disadvantaged communities are at significant risk but does not guarantee that these communities will be addressed first. EJAC knows that these communities suffer the most due to no investment and manufacturing facilities being placed in or around neighborhoods, schools, and parks. CARB must continue to work with the EJAC group to ensure that the concerns raised are addressed and concrete solutions are developed. CARB acknowledges health data in the scoping plan;

⁵ *Top 10 Countries Leading The Energy Transition Index of 2020*
[Top 10 Countries Leading The Energy Transition Index of 2020 \(troescorp.com\)](https://troescorp.com/top-10-countries-leading-the-energy-transition-index-of-2020)

⁶ *DRAFT 2022 SCOPING PLAN UPDATE 2022-draft-sp (1).pdf*

⁷ [https://www.epa.gov/climate-hfcs-reduction/final-rule-phasedown-hydrofluorocarbons-establishing-allowance-](https://www.epa.gov/climate-hfcs-reduction/final-rule-phasedown-hydrofluorocarbons-establishing-allowance-allocation#:~:text=The%20AIM%20Act%2C%20which%20was,of%20global%20warming%20by%202100.)
allocation#:~:text=The%20AIM%20Act%2C%20which%20was,of%20global%20warming%20by%202100.

⁸ [https://www.federalregister.gov/documents/2021/10/05/2021-21030/phasedown-of-hydrofluorocarbons-](https://www.federalregister.gov/documents/2021/10/05/2021-21030/phasedown-of-hydrofluorocarbons-establishing-the-allowance-allocation-and-trading-program-under-the)
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however, the data is very vague and must be elaborated on. In the Central Valley, particularly, Fresno, we have data from the Central Valley Health Policy Institute that supports the health impacts that residents experienced living in these disadvantaged communities. For example, data shows that living in these disadvantaged communities, you will automatically lose 20 years of your life span due to manufacturing facilities being placed around their homes.