



## Urban Environmentalists Comments on the 2022 Scoping Plan Update - Scenario Concepts Technical Workshop

Urban Environmentalists appreciates the opportunity to submit comments on the 2022 Scoping Plan Update - Scenario Concepts Technical Workshop. Urban Environmentalists works to transform cities and towns into more sustainable, human-centered, and just communities through land use policy reform. We are an initiative of YIMBY Action, a network of pro-housing activists fighting for more inclusive housing policies.

Our comments address the following topics:

- Carbon neutrality should be achieved by 2035.
- Pursue more aggressive and more granular vehicle miles traveled (VMT) reduction targets.
- Consider the interconnected nature of the proposed options: compact urban form can support reduced VMT, reduced demand for energy and cement, etc.
- Incorporate micromobility and walking as legitimate transportation modes on par with driving and public transit, and as impactful climate measures.
- Consider land use as an essential element of building decarbonization, alongside electrification.

### **Carbon Neutrality**

Technical Workshop slide 11 states, “Science calls for carbon neutrality (CN) by mid-century.” While often cited, this is a misleading statement. The [steepness of our path to carbon neutrality matters](#) due to the cumulative nature of emissions. The more we delay carbon neutrality, the worse the impacts will be. We are not facing a binary outcome, and the smoke in our skies today shows us that even if we achieved carbon neutrality tomorrow, we would still have a climate adaptation crisis.

Moreover, as a matter of global environmental justice it is incumbent upon wealthier and historically more polluting jurisdictions to make faster progress. As a reference point, a recent RMI report [calls for the US as a whole to reach near-carbon-neutral by 2040](#). Particularly given that other states are far behind California in taking climate action, a target of carbon neutrality by 2035 is most appropriate for California.



## **Vehicle Miles Traveled (VMT)**

VMT reductions should be highly prioritized in the Scoping Plan Update, as an equally important measure alongside vehicle electrification. The relationship between VMT reduction and transportation electrification is similar to that between energy efficiency and renewable energy. The more we can reduce VMT, the less we must invest in transportation electrification infrastructure and the more affordable our carbon reductions will be.

There are also many non-climate benefits associated with VMT reduction. These include reduced particulate emissions from tires and brake pads, reduced toxic runoff associated with car tires, reduced congestion and the associated increases in economic productivity and mental health, reduced traffic injuries and fatalities, and a more resilient transportation system in the event of evacuations. Moreover, there are synergies with VMT reductions that reduce emissions in other sectors, such as [raw materials extraction and manufacturing](#), and oil refining: this is one reason why recent studies have pointed out that [electrification alone is insufficient](#) to meet transportation decarbonization targets.

Measures to support VMT reduction also have environmental and public health benefits. Stopping freeway construction and widening would reduce demand for cement, which is an especially difficult material to decarbonize. Road diets and associated urban greening will reduce traffic deaths, mitigate the urban heat island effect, and support better stormwater management. Greater mode share for [active transportation has the potential to benefit public health tremendously](#), while also supporting independent mobility for children, seniors, and disabled people who cannot drive. Many of these measures will particularly benefit disadvantaged communities, which suffer disproportionately from traffic, pollution, asthma, road violence, and urban heat island effect.

We note that VMT targets should be set on a per-capita basis so that population loss to other higher emission and higher VMT per capita states does not appear as a success, when in fact it is simply carbon leakage. In fact, we encourage development of [per-capita targets for all sources of emissions](#) to supplement the total in-state emissions goals of Senate Bill 32.

Senate Bill 375 required CARB to develop and set regional targets for greenhouse gas emission reductions from passenger vehicles and [set a target of 19% VMT reduction](#) below 2005 levels by 2035. Given California's failure to decrease transportation emissions to date, it is imperative to set even more aggressive VMT reduction targets going forward.



In light of the existing SB 375 target, as well as the increasingly dire nature of our climate emergency, CARB's most ambitious scenario of 20% reduction below 2020 levels by 2045 is inadequate. For comparison, the [International Energy Agency \(IEA\)](#) has a more ambitious goal of no gas-powered vehicles in large cities by 2030, to be accomplished via a combination of fewer cars and adoption of zero-emissions vehicles. Globally, California is a laggard in transportation emissions and may not be as ambitious as the IEA, but it should aim to at least get closer to this global standard. Closer to home, the city of San Jose [already has a goal in its climate plan](#) to reduce VMT per capita 43% by 2040 and 57% by 2050, or about 50% by 2045 (relative to 2017).

It is feasible to more greatly reduce VMT in urban and inner suburban regions, where transit, micromobility, and walking are more viable. This can compensate for smaller VMT reductions in rural areas. Therefore, we propose a 50% per capita VMT reduction target for urban and inner suburban areas by 2045 (relative to 2020). There should also be interim targets to ensure we are on track: 20% reductions by 2030, and 40% reductions by 2040. Statewide, we propose a 30% per capita reduction below 2020 VMT levels by 2045, with interim targets of 10% by 2030 and 25% by 2040.

This more aggressive scenario should be studied, including detailing how urban, suburban, exurban, and rural VMT reduction metrics can be achieved. While the Scoping Plan does not itself include implementation plans, we further note that enforcement mechanisms are essential. If local and regional actions to reduce VMT are insufficient or not timely, the responsible agencies should be either penalized or preempted to ensure that California as a whole meets its targets in addressing the climate crisis.

To support VMT reduction, California's statewide, regional, and local planning agencies should pursue their mandates for congestion reduction by reducing VMT to the point that the remaining street and highway traffic flows more freely, rather than by widening roads and freeways.

Planning agencies should take a holistic approach to reducing VMT and should consider land use changes. For example, building more infill housing and other compact, mixed-use development can reduce exurbanization and its associated VMT, as well as reduce VMT within urban and inner suburban areas. There are other co-benefits to such development, which we address in the building decarbonization section of our comments.



## **Micromobility, Walking, and Mode Shift**

The Scoping Plan Update should incorporate micromobility and walking as legitimate transportation modes on par with driving and public transit, and as impactful climate measures. Currently, it fails to consider these important sustainable travel modes at all. For example, in the August 17 Technical Workshop slides, slide 10 discusses what is in scope in transitioning from fossil fuels to alternatives. It is missing any mention of either walking or electric/human-powered micromobility. This despite the fact that in the U.S. about [twice as many e-bikes are sold per year as light-duty EVs](#), and e-bikes' energy and charging infrastructure needs are much lower than those of electric cars. We call on CARB to explicitly include walking and micromobility as "vehicle types" in all planning documents, and to consider them everywhere that cars are considered.

Relatedly, AB 1147 (Friedman, Active Transportation Program) will likely be signed into law in the coming weeks. CARB should ensure that its Scoping Plan Update includes modeling assumptions and provides results that will facilitate implementation of AB 1147 and further its intent, as well as support any similar, future legislation.

Lack of appropriate consideration of walking and micromobility surfaces in numerous aspects of the Scoping Plan Update. For example, while California pursues VMT reductions from cars and trucks, micromobility VMT should actually go up as a result of mode shift. This requires more careful framing of policies and goals. And in considering fleet electrification targets, how is electric micromobility accounted for, if at all? As companies from Domino's to DHL roll out electric micromobility fleets worldwide, this is not purely an academic question.

There should also be a walking and micromobility standard, just as we have ZEV sales targets and RPS. The state should target & model certain sales curves for electric micromobility vehicles, as well as setting targets for mode shift to walking and micromobility. Alternatively, CARB could incorporate micromobility and transit in some other way into the targets for light duty ZEVs.

Likewise, CARB should consider mode shift from passenger vehicles to transit as a decarbonization option. More mass transit and fewer cars increases transportation efficiency and lowers carbon emissions, no matter what the vehicles are powered by.



## **Building Decarbonization**

The building decarbonization options put forward by CARB are entirely focused on building electrification. Electrification is essential, yet it is only one of many tools available in pursuing the broader goal of decarbonization. CARB should consider other building decarbonization strategies alongside electrification, weighting them as equally important and impactful.

Most importantly, building decarbonization options should also consider construction of multifamily, multistory, mixed-use development. These measures are highly impactful: according to the California Energy Commission's most recent [Residential Appliance Saturation Survey](#), multifamily homes use approximately half the energy of single family homes, even without any other decarbonization measures.

As noted above, the building decarbonization options should be tied to the VMT and vehicle electrification options - compact, mixed use development enables reduced VMT and supports greater mode shift to more efficient and lower cost transportation options such as e-bikes and public transit.

Building decarbonization options should also be tied to the industry options - compact, mixed use development requires much less cement and other sources of [embodied carbon](#). Promotion of cross-laminated timber construction can further reduce cement needs. Furthermore, compact and infill development avoids loss of natural lands, which supports the Scoping Plan Update's goal of increasing [sequestration in natural and working lands](#).

Finally, the building decarbonization options should consider our overall housing need, consistent with the California Department of Finance population projections, and should be linked to HCD estimates and local housing element processes. How the projected increase in housing is accommodated has important carbon implications.

Three scenarios to consider are:

1. Compact, mixed use development is built in existing urban and inner suburban areas.  
These areas tend to be coastal and thus more temperate - [particularly as our climate changes](#) - with relatively low energy needs. This is the lowest-carbon and most environmentally just pathway, and we call on CARB to prioritize it.
2. Single family housing is built in exurban sprawl areas in California.



On a consumption basis, including VMT, this housing is roughly 1.5x as carbon intensive as equivalent-income infill housing, according to a [UC Berkeley study](#) and [RMI analysis](#). It also results in long, debilitating commutes, increased fire risk, and increased exposure to extreme heat, particularly for lower income people and people of color.

3. Single family housing is built in sprawl areas out of state (e.g., Phoenix or Austin). This housing will generally be in even more extreme climates and in jurisdictions with less stringent code requirements and renewable energy penetration, and thus cause greater carbon leakage.

A useful model for considering the potential pathways for new home construction can be found at <https://www.upforgrowth.org/research/housing-underproduction-california>.

## **Conclusion**

In closing, just as the state pursues energy efficiency alongside renewable energy, the state should also pursue more efficient housing and transportation systems through more efficient land use, and not just electrification of existing systems. And as a matter of environmental justice, the state must support decarbonization approaches that move rapidly to enable currently-underserved residents to live in more temperate climates, with reduced particulate emissions and other pollution.

Respectfully Submitted,

A handwritten signature in black ink that reads "Joanna Gubman". The signature is fluid and cursive.

Joanna Gubman  
Executive Director, Urban Environmentalists  
September 3, 2021

(650) 387-7848  
[joanna@urbanenvironmentalists.org](mailto:joanna@urbanenvironmentalists.org)  
[www.urbanenvironmentalists.org](http://www.urbanenvironmentalists.org)