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Land Use Analysis needed to reduce energy use

Additional submitted attachment is included below.

From: [Alfred Twu](#)
To: [Energy - Docket Optical System](#)
Subject: 23-IEPR-O1 2023 Scoping Order - Land Use Analysis needed to reduce energy use
Date: Friday, March 17, 2023 2:06:14 PM

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Docket Unit Docket No. 23-IEPR-01 (Public Comment),

Thank you for the opportunity to comment on the 2023 IEPR Scoping Order. I am writing to express my deep concern that the draft Scoping Order NEVER ONCE mentions the need to sustainably solve our housing crisis, end car dependency, or build walkable, sustainable communities.

California is short about 2.5 million homes, according to our Regional Housing Needs Allocation. And in calling for a 25% reduction in driving by 2030, the 2022 Scoping Plan Update was crystal clear: "Zero-emission vehicles are not enough to solve the climate crisis."

The Scoping Plan Update adds: "More compact infill development generally generates lower emissions because attached building types and smaller residential unit sizes require fewer emissions to construct and less energy to heat and cool. Studies have estimated that infill development uses 10 to 20 percent less residential energy due to changes in unit types, sizes, and locations. Additional benefits include reduced heat island effects from paved surfaces like parking lots, which lowers long-term building energy use, and reduced emissions from the construction of infrastructure."

Building sustainable communities is also a matter of equity. The Scoping Plan Update is unequivocal: "Shifting California's development patterns and transportation systems is critical to address existing injustices by making livable, affordable homes with multi-modal connections to jobs, services, open space, and education available to all Californians, not just the white and the wealthy."

We simply cannot meet our state goals of equity, climate justice, and housing justice without building more infill housing, taking on sprawl, and driving dramatically less. Yes, renewable energy is essential, and so are heat pumps and electric cars - but they are not enough.

The Scoping Plan Update already calls on the state to do better on land use: "Plan and invest in a sustainable transportation system. [...] Manage the use of the transportation system to advance climate and equity goals. Consider policies to optimize the use of California's transportation infrastructure by prioritizing the movement of people over vehicles. [And improve] alignment of land use planning and development with climate and equity goals. Consider policies to accelerate infill development, affirmatively further fair housing, and increase natural and working lands protection, in furtherance of the State's planning priorities."

Even beyond questions of alignment with state goals, unless it considers housing policy, the

IEPR will not accurately or adequately model the range of energy outcomes in California. The state's housing stock has not kept up with historical population growth, and continued failure to build enough housing will surely lead to more displacement out of state – disproportionately people of color and lower income residents who cannot keep up with housing costs. Meanwhile, continuing to underproduce housing will mean (on average) an older, less efficient, and less electrified housing stock than would be predicted by assuming housing follows directly from population forecasts. The Energy Commission simply cannot accurately account for the state's demography and building stock – and thus energy and environmental outcomes – if it continues to treat housing policy and population as exogenous variables.

I call on the Energy Commission to align the 2023 IEPR Scoping Order with the state's own goals and with the direction already given in the 2022 Scoping Plan Update. In particular:

- The Scoping Order should include SB 375 in its list of relevant legislation.
- The IEPR Scoping Order should include a focus on building more infill housing in climate-resilient, high-opportunity areas near destinations as an essential element of equitable building energy efficiency and decarbonization, alongside electrification. Support for infill housing could include building code revisions, support for housing element development, zoning reform, and development of pre-approved, standardized building designs.
- The IEPR scope should include forecasting and policy recommendations that will achieve California's vehicle miles traveled (VMT) reduction targets consistent with the 2022 Scoping Plan Update. To that end, the IEPR scope should consider mode shift, mixed-use development, and building more infill housing in climate-resilient, high-opportunity areas near destinations like jobs, schools, and amenities. VMT reduction can also be considered as a transportation energy efficiency measure.
- The IEPR Scoping Order should include micromobility and walking as legitimate transportation modes on par with driving and public transit, and as impactful climate and transportation justice measures that are an essential part of any transportation analysis.
- The IEPR Scoping Order should acknowledge the interconnected nature of our energy policies. For example, dense housing can support reduced VMT, reduced demand for energy, and reduced need for building materials.

Finally, the Scoping Order should include a focus on building decarbonization forecast scenarios that consider our overall housing need, consistent with the California Department of Finance population projections and linked to Department of Housing and Community Development estimates and local Housing Elements. How the projected increase in housing is accommodated has important carbon and energy implications, so a robust analysis is essential to include in the scope of the IEPR.

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-energy and most environmentally just pathway, and I call on the Energy Commission 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/energy leakage.

As a matter of wise energy policy - and of following state laws such as SB 375 - the Energy Commission must support the transition to more sustainable, human-centered, and just communities, and not simply pursue an all-electric version of the status quo. It's past time to get serious about the benefits of walkable, bikeable communities with dense and abundant housing.

Alfred Twu