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*Comment Received From: Alice La Pierre*  
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## **The need for more energy efficiency for the Building Performance Standard Passive House for all buildings**

Regarding Docket: 24-BPS-01, TN# 257777, Building Energy Performance Strategy Report:

Energy Efficiency needs to be considered more deeply. The existing minimum energy efficiency standards have not done enough to reduce the greenhouse gas emissions, which Title 24.6 was designed to do. Performance based standards are a move in the right direction, but reliance on specific technologies, including heat pumps, puts the emphasis on technology, rather than on the building envelope where it should be. Electrification of buildings is making the grid load worse, not better. Vehicle electrification only adds to the problem. The focus needs to be on the building envelope, not electrification of gas equipment alone. We have gone after all the low-hanging fruit, but sooner or later, we have to harvest ALL the fruit. This is the time to adopt Passive House standards for existing and new buildings.

Thicker/deeper walls, triple pane windows, skylights and doors, and proper mechanical ventilation to control air flow and moisture will help reduce the stress on an already over-stressed grid. The proof of this is Peak Demand hours, and the fact that the IOUs cannot keep enough power on the grid to satisfy the demand, without implementing demand response programs for customers.

This is not the way to go. Technology alone will not save us, unless that technology includes, in very large part, Passive House standards for building envelope and ventilation measures. If the cold climates of northern Europe can have livable buildings with no heating or air conditioning, then California can certainly manage this with so much of the state's populations in milder coastal climates.

Passive House design employs thousands of local architects, builders, manufacturers and suppliers. It provides for better indoor air quality and moisture control, reducing the spread of airborne viruses, and reducing the infiltration of mold, allergens, and wildfire smoke. Passive Houses are naturally fire-resistant, with their thicker, better insulated walls and roofs. And they will reduce the amount of energy taken from the grid. This is a win-win-win for building occupants, building owners, and the state's economy. It is a win for the environment, where everyone lives.

There are cost effective ways to retrofit existing building stock to meet Passive House standards. These include installing double-paned window inserts, and keeping the existing windows; adding a second insulated wall on the exterior or interior as appropriate, draft sealing with pressure testing, using a solar-radiant barrier paint additive on exterior paint at a very modest cost, which has been shown to reduce solar

heat gain b as much as 60% in desert climates in summer. See:  
<https://hytechsales.com/test-data>

Radiant barrier window film block as much as 70% of solar heat gain, depending on the climate and solar orientation (south vs. east, etc.). It also reduces radiant energy lost in cold weather, all at a very modest cost.

Please consider strengthening our energy efficiency standards to adopt Passive House standards as an option, for occupant health, and the health of the grid. Relying on electrification of gas systems alone is simply not the answer.