

California Moves to Increase Housing Prices With a Solar Mandate

The California Energy Commission just mandated that all new housing constructed after 2020 must include solar panels. The estimated cost is \$25,000 to \$30,000. While that's not much in the San Francisco Bay Area, other parts of the state may not be as lucky. Let's look at the impact of a solar mandate.

As always, my methodology is transparent. [Click here](#) to download my Excel workbook with all data, calculations, etc.

Here's the summary from the San Jose Mercury-News:

- "The new solar mandate would apply to all houses, condos and apartment buildings up to three stories tall that obtain building permits after Jan. 1, 2020.
- Exceptions or alternatives will be allowed when homes are shaded by trees or buildings or when the home's roofs are too small to accommodate solar panels.
- Solar arrays can be smaller because homes won't have to achieve true net-zero status.
- Builders installing batteries like the Tesla Powerwall would get "compliance credits," allowing them to further reduce the size of the solar system.
- Provisions will encourage more electric use or even all-electric homes to reduce natural gas consumption. State officials say improved technology is making electric water heaters increasingly cost-effective."

Probably the most interesting point is the first one. Why are structures taller than three stories exempt from this regulation? The answer is to be found in another state policy that encourages high-density housing, especially along mass transit routes. Saving \$30,000 by building four stories instead of three sounds like a pretty good deal.

Average housing prices in coastal California are insanely high. According to data compiled by Shashank Shekhar at using data from the California Association of Realtors, the highest median price is in San Francisco at a whopping \$1,730,000. The lowest? Tehama County at a bargain basement median price of \$189,000. But the cost will be \$30,000 regardless of the price of the structure. In San Francisco, that amounts to a piddling 1.7%. And let's face facts. If you can afford to buy a house in San Francisco, tacking \$30,000 on to the price is not even worth mentioning.

But the rest of the state is another story. In Tehama County, solar will increase the price of an average house by 15.9%. Similar results apply to most counties east of the

Diablo Range which forms the west edge of the central valley. Examples include Fresno (11.3%), Stanislaus (10.0%), and Tulare (13.3%) North of Sonoma and Napa counties, similar conditions apply. Del Norte county in the northwest corner of the state would see a 13.9% increase.

I divided the state into ten regions and calculated the average of the median housing price for the counties in that region. Here's the complete list including all the counties broken into regions with the percentage increase in price for both \$25,000 and \$30,000 cost estimates. There's also a summary table showing each region. Finally I've included a map of California counties for reference.





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