California heads toward requiring solar panels on all new houses

BY ANDREW KHOURI

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California is set to become the first state to require solar panels on all newly built single-family houses. The mandate is expected to save buyers money in the long run but also raise their upfront costs at a time many are already struggling to afford a mortgage.

The state's Energy Commission is scheduled to vote Wednesday on the rules, which are expected to pass and take effect in 2020. The regulations, which would also apply to new multifamily buildings of three stories or fewer, don't need the approval of the Legislature.

The new building standards — which also include updated insulation mandates — are a piece of California's ambitious plan to slash greenhouse gas emissions in coming decades. That will require sweeping policy changes to promote renewable energy, electric vehicles and even denser neighborhoods where people have to drive less for daily trips.

"This is going to be a significant increase in the solar market in California," Kelly Knutsen of the trade group California Solar & Storage Assn. said of the new requirement. "We are also sending a national message that … we are a leader in the clean energy economy."

The rules should result in more jobs in the state's solar industry and promote emerging technology by letting builders meet other energy efficiency requirements through batteries that store a home's solar-generated power, Knutsen said.

At the moment, about a fifth of new houses in California come with solar panels, one business group estimates.

"Going to 100% is a really big, big jump," said Stuart Waldman, president of the Valley Industry & Commerce Assn., which represents San Fernando Valley businesses and opposes the mandate.

While addressing one of the state's most pressing challenges — reducing greenhouse gas emissions — the requirements seem to exacerbate, at least in the short run, another: the increasingly high cost of housing.

Some housing proponents have criticized the role that state and local mandates play in driving housing costs higher. In California's coastal communities, at least, research has found that the sharp rise in housing costs is mostly driven by rising land costs, said Issi Romem, chief economist at BuildZoom, a permit and contractor data analysis website.

"Home prices have detached from construction costs," Romem wrote in a recent blog post. He placed the blame on local zoning that limits how many homes can be built in highly sought-after neighborhoods.

But construction costs and government fees have been rising as well. And the latest California rules are expected to make a single-family house $9,500 more expensive to build on average, which includes the effect of the Trump administration's tariffs on imported solar panels, according to the Energy Commission.

"It all adds up," Waldman said. "Ten thousand dollars is the difference in getting a home and not getting a home for some home buyers. There is only so much the banks will finance."

The California Building Industry Assn. said increased construction costs will be passed along to the consumer, though it and the commission say buyers would save in the long run by using the essentially free energy to power lights and appliances or by selling unused power back to the grid.

A spokeswoman for the Energy Commission, Amber Beck, said buyers of new homes on average would see monthly mortgage payments rise by $40, while their monthly utility bills would decline by $80.

Over time, such savings would more than make up for an increased down payment — even if builders passed along every cent in costs, something that isn't a certainty. The commission put average total utility savings at $19,000 in today's dollars over a 30-year period, taking inflation into account.
"For housing to be affordable, it's not just upfront costs, but it's ongoing operating costs," said Rachel Golden, a senior campaign representative at the Sierra Club.

The California Building Industry Assn. supports passage of the rules, although the trade group wanted them rolled out more slowly. "We can look the home buyer in the eye and say, "You are going to get your money back,"" said Robert Raymer, technical director of the group.

The new regulations — which have been working their way through the regulatory process for more than a year — still must be approved by another state body, the California Building Standards Commission, later this year. But the Energy Commission's Beck said she couldn't recall an instance in which that commission overruled what was put forth by energy officials.

In addition to the new standards for residential buildings, there would be additional energy-efficient lighting requirements for new commercial buildings. In all, the Energy Commission said it expects the rules to reduce greenhouse gas emissions by 1.4 million metric tons over three years.

That's tiny compared with California's overall goal — to slash annual emissions 40% below 1990 levels by 2030, something that from the most recent estimate of current emissions in 2015 requires a reduction of 180 million metric tons.

But Beck said "every drop in the bucket counts," and noted that the commission will continue to look at other energy-efficiency measures in future building code updates, which happen every three years.

The new rules won't amount to much of a change for some builders: Solar panels are already proving popular among their customers. A recent survey from John Burns Real Estate Consulting found that 81% of new-home shoppers nationwide would be willing to see their total purchase price rise by $100 for every $1 that energy-efficient upgrades saved them each month.

Even so, Raymer said the new standards will have some effect in a state where, according to CoreLogic, the median price of a new home was slightly more than $530,000 in the first quarter of this year.

If the new rules added $9,500 to the sales price of an otherwise $530,000 home, a buyer putting 20% down would need to cough up an additional $1,900 for the down payment, according to a mortgage calculator from online brokerage Redfin.

Monthly mortgage payments would rise by $50 if the buyer took out a 30-year mortgage at 4.39% interest.

Raymer said such added costs shouldn't be much of an issue in coastal Southern California and the San Francisco Bay Area, but that may not be the case in markets with lower incomes and home prices.

"Ten thousand dollars to $12,000 of increased costs does have an impact in the Central Valley, it does have an impact in Sacramento," he said.

The California Solar & Storage Assn. wanted the commission to go further and require all homes to be "net zero" by 2020 — meaning the energy they use is equal or less than what is produced on-site.

The new rules don't achieve that, in large part because the commission found doing so wouldn't be cost-effective in the long run — something it must ensure when passing new building rules, Beck said.

Jacob Atalla, vice president of sustainability at KB Home of Los Angeles, said builders have been preparing for the mandate for years and can keep upfront costs down by using solar lease agreements and buying panels at scale. Already, about 35% of KB Home's new houses have solar panels.

"It didn't come as a surprise to us," Atalla said.

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CaliforniaGeo Responds—

As featured in the third from last paragraph (above) the Energy Commission's spokeswoman, Amber Beck, trots out the usual excuse from the CEC about not supporting real Zero Net Energy (on-site, without carbon). Her agency remains constrained to kill off beneficial electrification by slavish devotion to feigned "cost effectiveness"—delaying or ignoring the well established policy push for California emissions reduction targets by 2030.
Proof? The CEC’s Title-24 residential building regulations demand that all new housing inside gas distribution territory carry gas furnaces or boilers, and gas water heating. This keeps those buildings leaking methane on the outside of the meter and spewing CO2 emissions from inside for the multi-hundred year life of those new buildings. If the true social and environmental costs of carbon were in the CEC’s calculation, their celebration for natural gas would evaporate quicker than the invisible methane coming out of Aliso Canyon two years ago.

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—Bill Martin