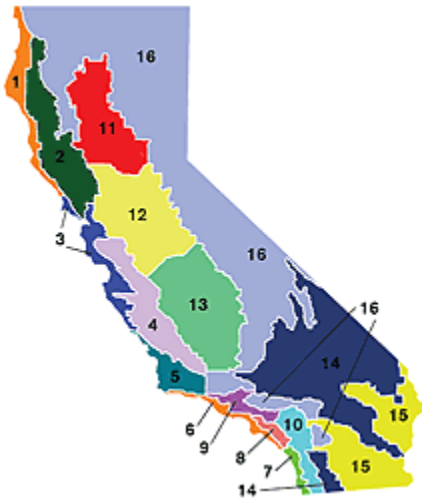


California Tightens Building Standards Yet Again

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The California Energy Commission (CEC) last week adopted stricter energy efficiency standards for new construction. Known as Title 24.

California's standards seek to reduce heating, cooling, and electricity bills for consumers. Title 24 dates from the 1970s, but has been updated continuously since. Concern about natural gas availability and price has been one spur driving the standards (natural gas is heavily used for both heating and electricity generation in California).

Here are a few examples of changes. Because the standards are complex, changes cannot be reduced to a single number. For example, Air Conditioning standards get changed with the size of the unit, and window U-factors (rate of heat loss) vary with climate zone.

- Minimum Air Conditioner and Heat Pump efficiency increased (e.g. 10.3 EER to 11.2 EER for AC between 65,000 Btu/h and 135,000 Btu/h).
- Window U-factors improved by 10% to 68% in some climate zones.
- Roofing products are required to reflect a minimum amount of sunlight in certain climate zones. The CEC's press release explained, "Cool roofs" are highly reflective, insulated roofing materials that stay up to 40 degrees cooler than a normal roof under a hot summer sun. "Cool roof" standards are designed to reduce air conditioner demand, save money, and reduce the urban heat island effect. A "cool roof" can reduce a homeowner's electricity consumption by as much as 20 percent.'

One item proposed item was later removed. The CEC had sought to require thermostats that "respond to price and emergency demand response signals" (i.e. grid overload could result in AC shutdown instead of blackouts.) This item was moved to a future proceeding.

According to the press release, the new standards targeted peak energy use, e.g. air conditioning load on hot days, and will cut California's peak energy demand by 129

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megawatts the first year the standards are in effect and increase cumulatively in subsequent years.

California's utilities were in many cases proponents of specific improvements to efficiency (e.g. PG&E proposed window efficiency upgrades). In many states utilities would see their profit reduced by such efficiency improvements, but in California and other states, utility profits are "decoupled" from revenue, and it is often the case that efficiency is more profitable than generation.