



CBIA

CALIFORNIA BUILDING INDUSTRY ASSOCIATION

California Housing Challenges and Trends

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05/11/2022

Who We Are

The California Building Industry Association is a statewide trade association based in Sacramento representing thousands of member companies including homebuilders, trade contractors, architects, engineers, designers, suppliers and industry professionals in the homebuilding, multi-family and mixed-use development markets.



Our Mission

The building industry has historically played a significant role in California's economic strength. That is why CBIA is focused on supporting intelligent, constructive policies that bolster the construction industry and will fight back against the efforts that seek to stifle the economic benefits of the new construction and homebuilding sector.

In the future, we continue to focus on a great opportunity to aggressively advocate for logical, balanced CEQA reform and strategic regulatory relief that will continue to spur California's economic growth.



Our Future

CBIA represents the interest of professionals in the housing, commercial, and mixed-use development industry. The association has been instrumental in furthering state policies that:

- Simplify or eliminate restrictive, costly building regulations and introduce more flexibility into land use decisions.
- Balance the concern for the environment and energy conservation with the need for affordable housing.
- Ensure that reasonable growth and development is both planned for and encouraged.
- Bolster the state's economic growth.

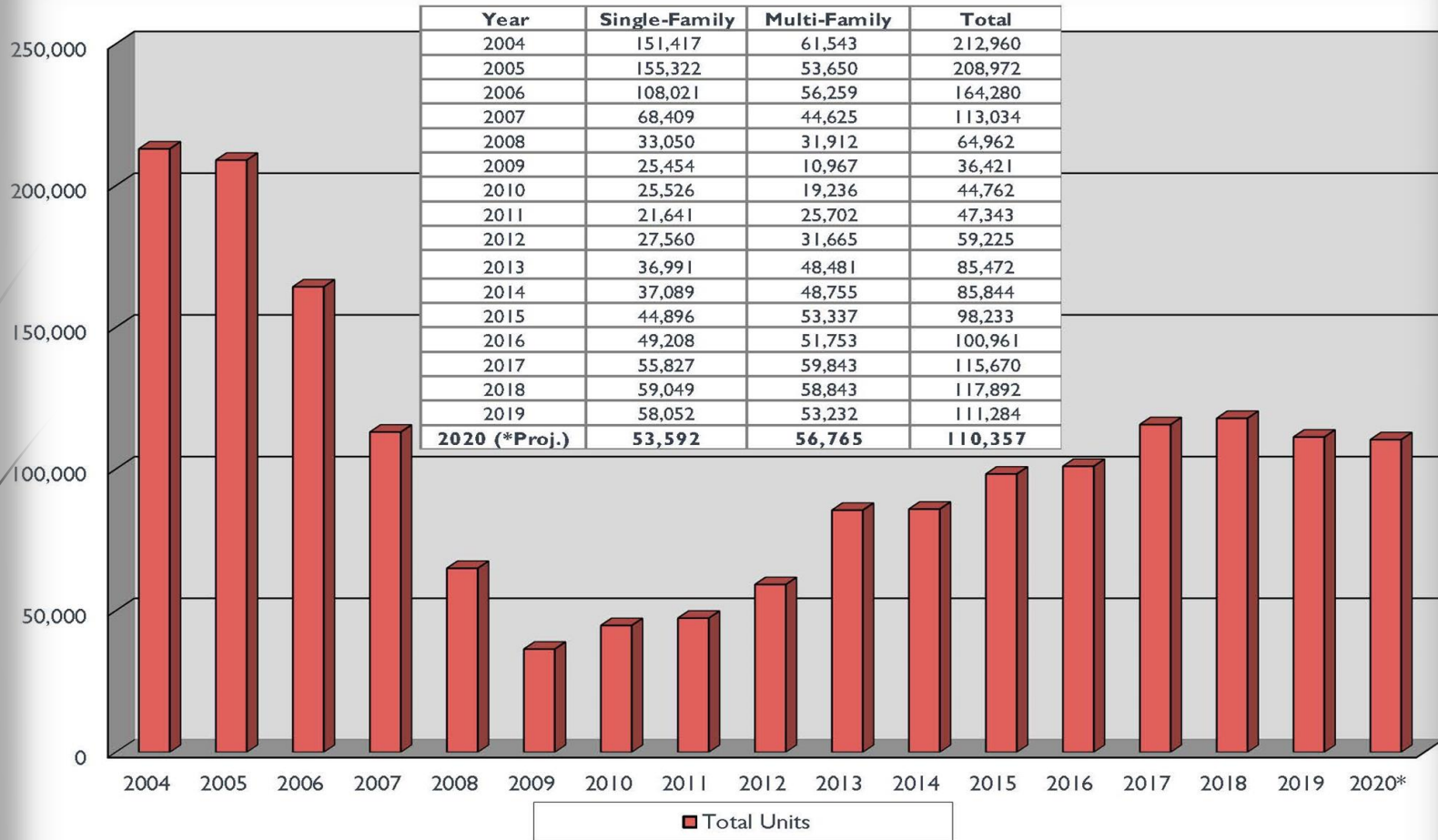


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HCD: Minimum 2.5 million homes needed; Statewide Housing Plan sets path forward, tracks progress and outcomes

The California Department of Housing and Community Development (HCD) released a new [Statewide Housing Plan](#), a statutorily required report updated every four years to outline housing challenges and strategies to address them over the next 10 years. The updated plan sets a bold path forward to meet California's required goal of adding at least 2.5 million homes over roughly eight years, with no less than 1 million of those homes targeted for lower-income households. This represents the cumulative number of homes that cities and counties across California must zone for through 2030 by law and is more than double the housing planned for in the last eight-year housing needs cycle.

HOUSING PRODUCTION IN CALIFORNIA 2004-2020*



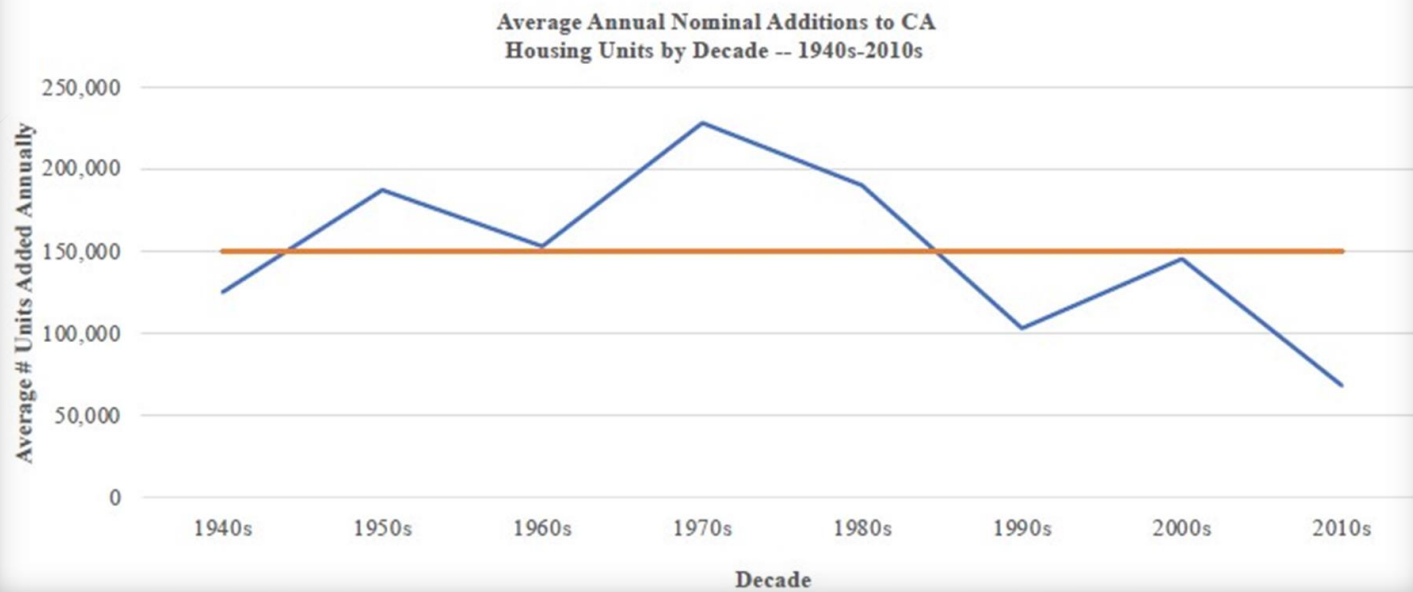
Data provided by: Construction Industry Research Board (CIRB) www.cirbreport.org

California's Decennial Population and Housing Unit Data Are Available through Federal Census Reports (and, in Recent Decades, State Agencies)

- California Population and Housing Units -- Beginning of Each Decade – 1940-2020

• <u>Year:</u>	<u>Total CA Population:</u>	<u>Total CA Housing Stock (Units):</u>
• 1940	6,907,387	2,340,400
• 1950	10,586,223	3,590,700
• 1960	15,717,204	5,465,900
• 1970	19,953,134	6,997,000
• 1980	23,667,902	9,279,244
• 1990	29,758,213	11,182,513
• 2000	33,873,086	12,214,550
• 2010	37,253,956	13,670,304
• 2020	39,804,743	14,353,528

Graph: For the Last Three Decades (1990-2020), Nominal Annual Housing Unit Production in California Below the 80-year Average



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California ranks 49th in the nation for the fewest homes per capita, with 385 existing homes per 1,000 people, compared with the national average of 419 homes.



- **Turner Policy Center**



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“To be able to qualify for any of these houses anywhere in the Bay Area, you have to have an average annual income of \$235,000. For first-time home buyers, it’s extraordinarily hard unless they have very wealthy parents.”



- **San Francisco Chronicle**

May 6, 2022



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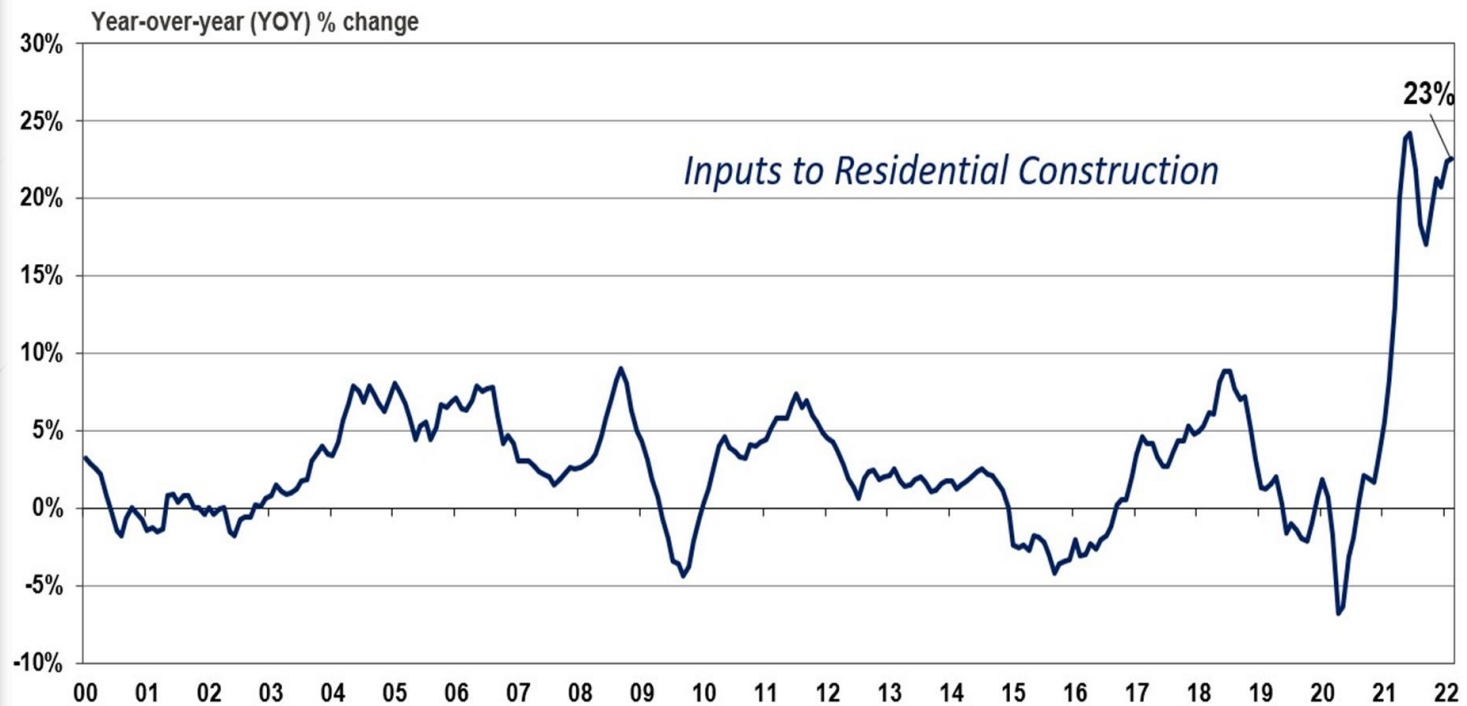
In the late 1960s, the average California home cost about 3x the average household's income. Today, it costs more than 7x what the average household makes.

- **Public Policy Institute of California**

California's median home price is now \$827,940.



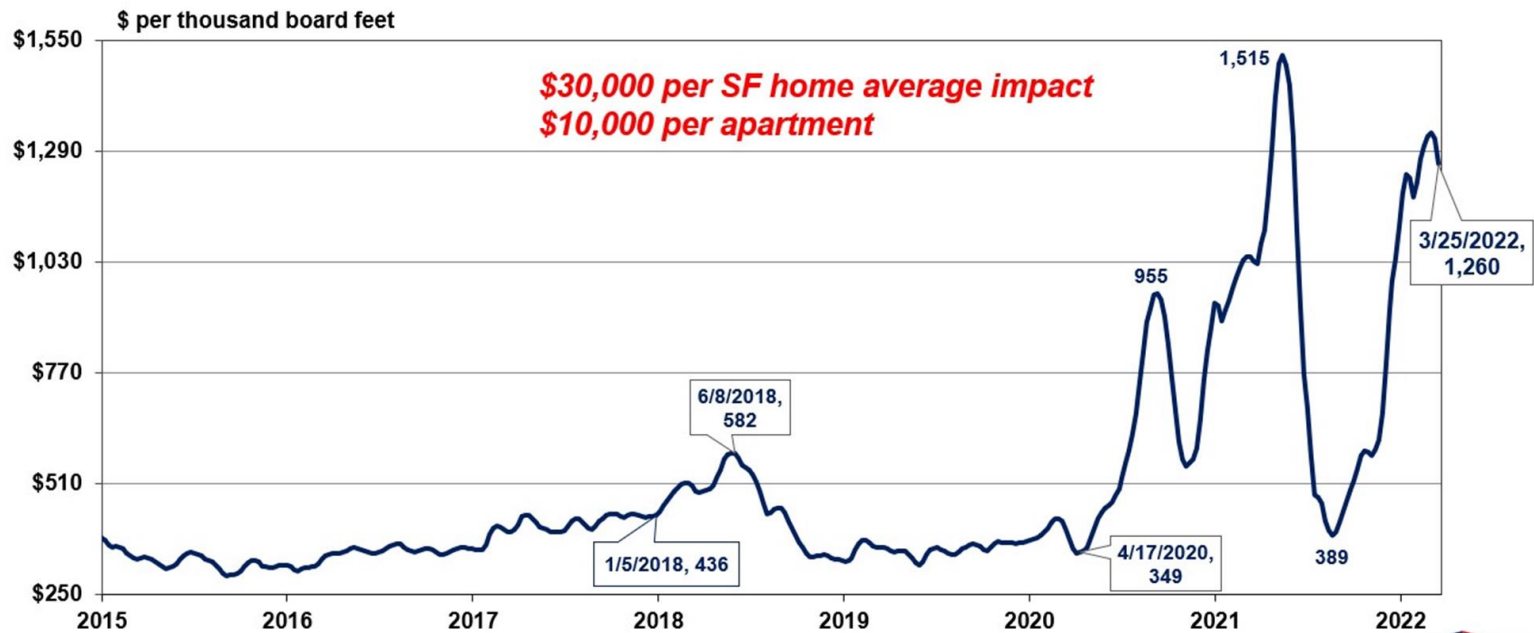
Building Materials - Residential Construction Cost



Source: U.S. Bureau of Labor Statistics (BLS): Producer Price Index (PPI)

Lumber Prices Edged Down

Current March price is \$1,260; down 6% in the past two weeks



Source: NAHB Analysis; Random Lengths Composite Index



Wildfires, Chapter 7A & Master Planned Communities

'The weakest link': Why your house may burn while your neighbor's survives the next wildfire

- ▶ A landmark 2008 building code designed for California's fire-prone regions — requiring fire-resistant roofs, siding and other safeguards — appears to have protected the Carrells' home and dozens of others like it from the Camp Fire. That year marks a pivotal moment in the state's deadly and expensive history of destructive natural disasters.
- ▶ All told, about 51 percent of the 350 single-family homes built after 2008 in the path of the Camp Fire were undamaged, according to McClatchy's analysis of Cal Fire data and Butte County property records. By contrast, only 18 percent of the 12,100 homes built prior to 2008 escaped damage. Those figures don't include mobile homes, which burned in nearly equal measure regardless of age.

- The Sacramento Bee
May 9, 2022



SFM Property Loss Data Summary

<u>Camp Fire:</u>	10,582 (destroyed/major damage/affected)	
Built after 1/1/10:	112 destroyed = 0.0106	(3 sf same street)
	<u>24 affected = 0.0022</u>	
	136 total = 0.0129 or 1.3%	
<u>Carr Fire:</u>	1,082 (destroyed/major damage/affected)	
Built after 1/1/10:	24 destroyed = 0.0222	(9 sf same street 2010)
	<u>12 affected = 0.0111</u>	
	36 total = 0.0333 or 3.3%	
<u>CZU Lightning Fire:</u>	998 (destroyed/major damage/inaccessible/affected)	
Built after 1/1/10:	5 destroyed = 0.0050	(no multiple sf same street)
	1 affected = 0.0010	
	<u>1 inaccessible = 0.0010</u>	
	7 total = 0.0070 or 0.7%	
<u>Glass Fire:</u>	737 (destroyed/major damage/affected)	(no multiple sf same street)
Built after 1/1/10:	4 destroyed = 0.0054	
	<u>6 affected = 0.0081</u>	
	10 Total = 0.0136 or 1.4%	
<u>LNU Lightning Fire:</u>	1,559 (destroyed/major damage/inaccessible/affected)	(2 sf same street)
Built after 1/1/10:	5 destroyed = 0.0032	
	<u>7 affected = 0.0045</u>	
	12 Total = 0.0077 or 0.8%	
<u>North Complex Fire:</u>	732 (destroyed/affected)	(no multiple sf on same street)
Built after 2010:	7 destroyed = 0.0096	
	<u>1 affected = 0.0014</u>	
	8 Total = 0.0109 or 1.1%	
<u>Nuns Fire:</u>	687 (destroyed/major damage/affected)	(2 sf on same street)
Built after 2010:	10 destroyed = 0.0146	
	<u>2 affected = 0.0029</u>	
	12 Total = 0.0175 or 1.8%	
<u>Thomas Fire:</u>	855 (destroyed/major damage/affected)	(4 sf on same street)
Built after 1/1/10:	5 destroyed = 0.0058	
	<u>1 affected = 0.0012</u>	
	6 Total = 0.0070 or 0.7%	
<u>Woolsey Fire:</u>	1,319 (destroyed/major damage/affected)	(2 sf on same street)
Built after 1/1/10:	12 destroyed = 0.0091	
	<u>7 affected = 0.0053</u>	
	19 Total = 0.0144 or 1.4%	



Low-Cost Retrofit List

Low-Cost Ways to Harden Your Home

1. When it is time to replace your roof, replace it with a Class A fire rated roof. [OFSM Wildland Urban Interface \(WUI\) Products](#)
2. Block any spaces between your roof covering and sheathing with noncombustible materials (bird stops).
3. Install a noncombustible gutter cover on gutters to prevent the accumulation of leaves and debris in the gutter.
4. Cover your chimney and stovepipe outlets with a noncombustible corrosion resistant metal mesh screen ([spark arrestor](#)), with 3/8-inch to 1/2-inch openings.
5. Install ember and flame-resistant vents. [OFSM Wildland Urban Interface \(WUI\) Products](#)
6. Caulk and plug gaps greater than 1/8-inch around exposed rafters and blocking to prevent ember intrusion into the attic or other enclosed spaces.
7. Inspect exterior siding for dry rot, gaps, cracks, and warping. Caulk or plug gaps greater than 1/8-inch in siding and replace any damaged boards, including those with dry rot.
8. Install weather-stripping to gaps greater than 1/8-inch between garage doors and door frames to prevent ember intrusion. The weather-stripping must be compliant with UL Standard 10C.
9. When it's time to replace your windows, replace them with multi-paned windows that have at least one pane of tempered glass. [OFSM Wildland Urban Interface \(WUI\) Products](#)
10. When it's time to replace your siding or deck, use compliant noncombustible, ignition-resistant, or other [OFSM Wildland Urban Interface \(WUI\) Products](#)
11. Cover openings to operable skylights with noncombustible metal mesh screen with openings in the screen not to exceed 1/8-inch.
12. Install a minimum 6-inch metal flashing, applied vertically on the exterior of the wall at the deck-to-wall intersection to protect the combustible siding material.

*This list was developed as a best practices guide and to assist homeowners to ensure their home is more ignition-resistant from wildfires. Low cost can be subjective. Some of these items are based on upgrading to more stringent materials when that feature is up for replacement due to normal maintenance or lifespan, i.e. roofs.

Updated 2/17/2022



Low-Cost Retrofit List

Low-Cost Ways to Create Defensible Space and Enhance the Effects of a Hardened Home

1. Regularly clean your roof, gutters, decks, and the base of walls to avoid the accumulation of fallen leaves, needles, and other flammable materials (see [Defensible Space Webpage](#) for more details).
2. Ensure that all combustible materials are removed from underneath, on top of, or within five feet of a deck.
3. Remove vegetation or other combustible materials that are within five feet of windows and glass doors.
4. Replace wood mulch products within five feet of all structures with noncombustible products such as dirt, stone, or gravel.
5. Remove all dead or dying grass, plants, shrubs, trees, branches, leaves, weeds, and pine needles within 30 feet of all structures or to the property line.
6. Ensure exposed firewood is stored at least 30 feet away from structures or completely covered in a fire-resistant material that will not allow embers to penetrate. Additionally, make sure you have 10 feet of clearance around your wood piles.
7. Be sure to store combustible outdoor furnishings away from your home when not in use.
8. Remember to properly store retractable awnings and umbrellas when not in use so they do not collect leaves and embers.



Housing Killer Legislation

- Senate Bill 12 2021-2022
- Senate Bill 55 2021
- Senate Bill 1292 2022

- CBIA Wildfire Sponsored Bill**
- Assembly Bill 2705 2022

New master planned communities must go through a strenuous environmental review under the California Environmental Quality Act (CEQA) and are typically planned, approved and implemented with numerous fire-safety features, such as:

- Fire-hardened homes built to the latest Chapter 7A standards
- Community-wide fuel breaks, fire-resistant landscaping, and green belting
- Perpetual funding, maintenance and enforcement through an HOA
- Appropriate and reliable fire access and evacuation routes
- Adequate water supplies (studied pursuant to SB 610)
- Residential fire sprinklers
- Undergrounded project utilities
- Community design and siting to minimize fire risks (e.g., slope setbacks)
- New fire stations, fire equipment and/or funding for firefighters to provide for a rapid initial fire attack where it did not previously exist

Irvine fire was a recipe for disaster. It became a rare victory for firefighters in grim year.

- Los Angeles Times
October 30, 2020

► “Communities were built under the state’s most recent fire code”...And “despite 45mph gusts launching embers into the suburban sprawl, where cars sat bumper to bumper trying to flee the oncoming flames, **not a single home was lost or seriously damaged.**”









Decarbonization

- A new home built in California is 70% more energy efficient than a home built 15 years ago.

California New Home Construction: Cost Impact of Recently Adopted and Proposed Building Standards

Recently Adopted Building Standards:

Over the past ten years, the State of California has implemented a series of new mandatory buildings standards resulting in the single greatest increase in code-related construction costs ever seen in the history of our state code.

- **Energy Efficiency Standards (effective 1/1/10):** The 2010 update of California's mandatory energy efficiency standards increased the stringency of the state standards by 20% and added approximately **\$2,500** to the cost of a home.
- **Green Building Standards (effective 1/1/11):** In January of 2011, California implemented the nation's first (and only) set of mandatory residential green building standards. Depending on the methods of compliance chosen by the home builder, the cost of compliance with these new mandatory regulations will range from **\$500 - \$2,000**.
- **Fire Sprinklers (effective 1/1/11):** California is one of two states in the nation to require fire sprinklers in all new homes (the other is Maryland). The cost of this state mandate can vary substantially, especially if the local water purveyor adds significant hook-up fees for new homes with sprinklers. However, the minimum cost of compliance with the state mandate will add an estimated **\$5,000 - \$6,000** to the cost of a new home. Adding insult to injury, homebuyers generally do not like having these systems installed, which means this additional cost does little (if anything) to increase the value/marketability of the new home.
- **Energy Efficiency Standards (effective 7/1/14):** The 2014 update of our state energy code resulted in a (25%) increase in the stringency of the standards and added another **\$3,000** to the cost of a new home.
- **Energy Efficiency Standards (effective 1/1/17):** The 2017 update of our state energy code will result in a 28% increase in the stringency of the standards and add another **\$3,000** to the cost of a home. More importantly, the CEC's regulations have reached a point of diminishing returns as all of the "low-hanging fruit" is gone. Major changes in the standard design of walls and roofs will be required in order to comply with this set of regulations.
- **Energy Efficiency and Solar Mandate (effective 1-1-20):** The 2020 update of our state energy code will include the nation's first statewide mandate for rooftop solar in addition to the usual increase in energy efficiency levels. This will result in an increase in construction costs ranging from **\$8,000-\$13,500** per home depending on location in the state.

State of the Industry:

California's residential housing sector is recovering from the worst economic downturn in over 60 years. **When we bottomed out in 2009-10, we had lost over 80% of our workforce.** Industry is currently building at a level of 60% of what would be considered a "normal level" of construction. Because of the economic turndown over the past decade, the LAO and HCD estimate California has a housing "deficit" of 1.5 million dwelling units.

Summary: In just 10 years, the State of California has implemented mandatory building standards that have added an estimated **\$22,000 - \$30,000** to cost of building a new home.

Breaking Down the Updates

Heat Pumps: The New Standard

Heat pumps are an electric technology for water and space heating that increases efficiency, reduces GHGs, and enables load flexibility. Current California market share is less than 6 percent in new home construction.

Standards include:

- Single-family homes — heat pump water or space standard.
- Multifamily homes such as apartment buildings — heat pump space heating standard.
- Businesses — heat pumps standard for schools, offices, banks, libraries, retail, grocery.



New Homes to Be Electric-Ready

The standards require single-family homes to be electric-ready, including:

- Electrical circuits for space heating, water heating, cooking/ovens, and clothes dryers.
- Electrical panel, branch circuits, and transfer switch for battery storage.
- Dedicated circuits and panels to easily convert from natural gas to electric in the future.



Solar and Storage Use Expanded

The 2022 Energy Code extends solar and introduces battery storage standards to the following building types:

- High-rise multifamily (apartments and condos)
- Hotel-motel
- Tenant space
- Office, medical office, and clinics
- Retail and grocery stores
- Restaurants
- Schools
- Civic (theaters, auditoriums, and convention centers)





California Rooftop Solar Mandate

- at least 3kW of PV on the roof (\$9-\$12k)

Cost of Net Zero Housing

- California will need to add 4 more kW of PV (\$12-\$16k)
- California will need to add 1-2 batteries per home (\$15-\$30k)



CALIFORNIA'S EXISTING HOUSING STOCK AND ENERGY POLICY

Before January 1957, California had an estimated housing stock of 4,043,194 dwelling units (multifamily and single-family units combined).

Between January 1957 and December 1982, 5,110,206 dwelling units were constructed in California (multifamily and single-family combined).

Between January 1983 and December 2020, 5,210,947 dwelling units were constructed in California (multifamily and single-family combined).

Before January 2021, California had a total existing housing stock of 14,364,347 dwelling units.

NOTE: The California's first of mandatory, statewide residential energy efficiency standards took effect in January 1983.

So, 9,153,400 dwellings (64%) were constructed under building standards containing no requirements for energy efficiency. To put this into perspective, **2 out of 3 homes in California never had to comply with any comprehensive energy efficiency mandate.**

California will increase its housing stock by approximately one percent (1%) each year in a robust economy. However, for the past 13 years (2008-2020), cut this number in half.

Put differently, under today's economy, **an energy policy that focuses solely on new residential construction will impact less than 5% of the total housing stock over the next decade.**

Data supplied by the Construction Industry Research Board
 {Statistical Overview Last Updated on 8/11/21}

For facts and information on housing and homebuilding, visit "The Voice of Housing in California" at www.cbia.org
California Homebuilders – Committed to Quality

The Need to Address Existing Buildings

This brief discusses findings that emerged through a series of interviews held in the spring of 2021, and a virtual workshop held in June 2021, in which over 115 stakeholder participants discussed Pathways to Carbon Neutrality in California.

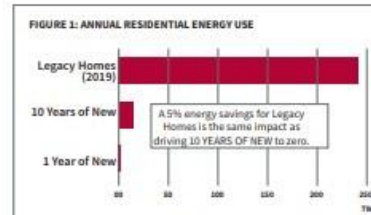
California can't build its way out of this – Existing buildings must be retrofitted.

Buildings represent 13.7% of California GHG emissions. California is setting high standards for new buildings with codes and regulations specifying energy efficiency, requiring photovoltaic systems, and starting to discourage or forbid fossil fuel appliances for space heating, hot water, and cooking. The state is on the way to eliminating carbon emissions from new buildings. However, new buildings are less of a problem than existing buildings.

OVER THE LAST FIVE YEARS, California has added about 85,000 units per year of housing.¹ Ten years of construction at this rate will yield around 850,000 new homes. In contrast, California has around 14 million existing homes, which is 15 times greater than ten years of new home growth. Buildings are long-lived, so almost all existing homes will still be in use in 2045.

LEGACY HOMES MUST BE RETROFITTED

Using simple averages for energy consumption, Figure 1 shows residential energy use for legacy homes and for new construction (10 years growth, and also 1 year). Notice that energy use for 10 years of new homes is a small fraction of energy use for existing homes. To put these numbers in perspective, a mere 5% reduction in energy use from legacy homes would be the same as driving energy use from new homes to zero.



There are two ways to reduce the carbon impact of existing buildings. One is to reduce the need for heating and cooling by improving the thermal envelope. The other is to convert fossil-fuel appliances to electric (furnaces and hot water heaters to heat pumps; gas stoves to induction). This brief discusses challenges to retrofitting existing buildings. (Although this document focuses on residential buildings, the issues are similar for commercial buildings.)

¹ US Census data: <https://www.census.gov/programs-surveys/popsci/technical-documentation/research/evaluation-estimate/2020-evaluation-estimate/2010s-total-housing-units.html>

“California average RESIDENTIAL ELECTRICITY PRICE for the last 12 months ending in January 2022 was 75% higher than the U.S. average.”

- **California Center for Jobs and the Economy**

“California’s residential electricity prices grew 2.7x faster than the rest of the country in 2021.”

- **The Wall Street Journal**

March 11, 2022

California Warns of Possible Summer Blackouts as Power Runs Low

- State says energy supplies could be short through 2025
- California has struggled to keep lights on past two summers

“California energy officials warned the state may be at risk of blackouts for the next three summers due to power supply shortages and extreme weather.

The state could be short about 1,700 megawatts this summer -- enough power for about 1.3 million homes - and that gap may widen to about 1,800 megawatts by 2025, officials said Friday during a media call. These forecasts don't include other factors such as extreme regional heat waves or wildfires that can take down power lines, they said.”

- **Bloomberg**
May 6, 2022

“There’s batteries, there’s electric vehicles, there’s energy efficiency, there’s heat pump water heaters, there’s load flexibility. All of those things are going to impact electricity demand.”

- **Alice Reynolds, President**

California Public Utilities Commission (CPUC)

(Los Angeles Times 3/24/22)



Homebuilders must respond to consumer preference/choice

- ▶ 50+ California jurisdictions have passed natural gas bans or limitations on new construction
- ▶ 114+ California jurisdictions have pledged energy choice for their communities
- ▶ In response to California, at least 22 states have enacted laws that prevent cities from placing bans on natural gas



California Housing Trends

- ▶ California's three most populous cities all experienced population loss – Los Angeles, San Diego & Orange.
- ▶ Californians in search of more open space continued to trade city life in major urban centers like the Bay Area and Los Angeles for suburban and rural communities, like the Central Valley and Inland Empire.
- ▶ High construction costs, inflation, rising interest rates and slower than expected pandemic recovery

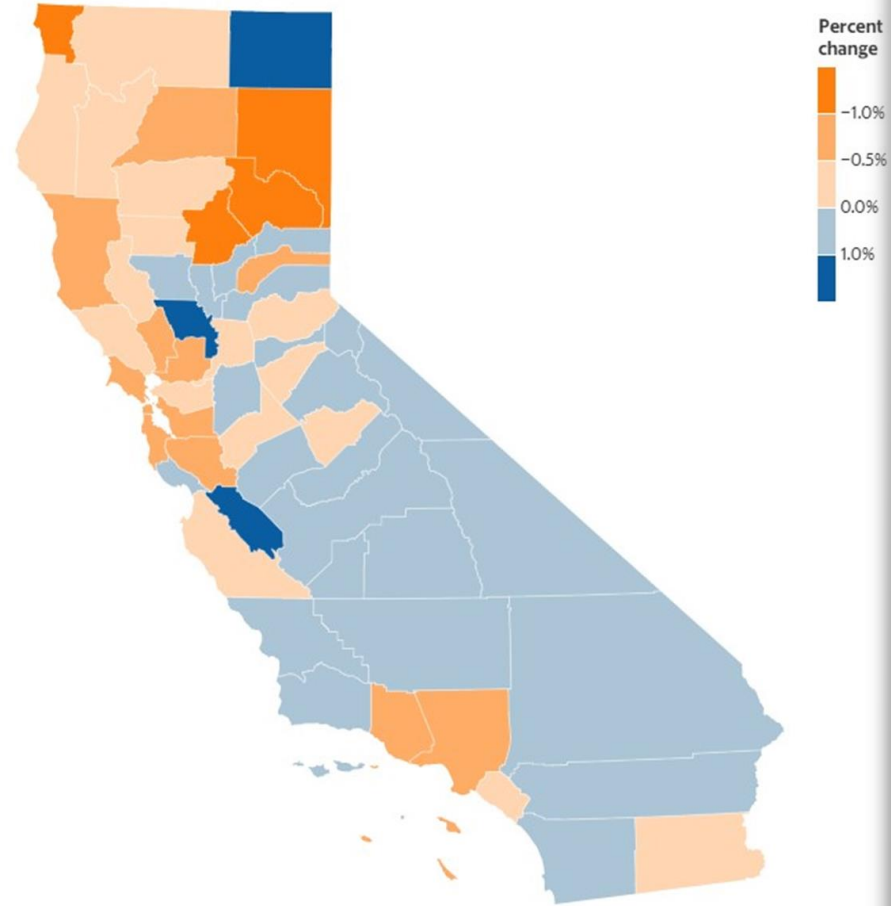
- **California Department of Finance**

May 2, 2022



POPULATION CHANGE IN CALIFORNIA

The state of California's population declined 0.3% between 2021 and 2022, according to population estimates released Monday by the state Department of Finance. That's a decline of 117,552 residents.



Map: Nathaniel Levine • Source: [California Dept. of Finance](#) • [Get the data](#)

Electric Vehicle Mandates

- ▶ Current California standards require 10% "EV-capable" parking spaces in new multi-family construction. (10%)
- ▶ A new requirement starting June 1, 2023 requires that 25% of parking spaces must have access to an electrical outlet ("low power" 240 volt), another 10% of "EV-capable" spaces, and 5% fully functioning EV-charging equipment. (40%)





Electric Vehicle Legislation

- Assembly Bill (AB) 1738
- Assembly Bill (AB) 2075
- Senate Bill (SB) 1482



EVs + Multi-Family Questions & Costs

**Average Household
Income for CA EV
Buyer**

\$173,000

**Average Household
Income for CA Tesla
Buyer**

\$305,000

**Average Cost of an
EV**

\$62,876

Axios / AP July 2021

- Per IRS data, 62% of 2018 EV tax credit beneficiaries had incomes exceeding \$200,000.
- "Prices are now soaring for key ingredients in EV batteries – battery grade cobalt prices are up 119% from January 1, 2020 through January 1, 2022. Nickel sulfate gained 55% and lithium carbonate rose 569%.

- The Wall Street Journal
February 7, 2022



Water Conservation in New Homes and Apartments

Compared to a home built in 1980, a similar 3-bedroom home with four occupants constructed to today's stringent water conservation standards **uses 50% less water.**

All plumbing fixtures in new residential dwellings must comply with the following:

- Water closets: ≤ 1.28 gallons/flush
- Showerheads: ≤ 1.8 gallons/minute
- Bathroom lavatory faucets: maximum flow rate ≤ 1.2 gallons/minute
- Kitchen faucets: ≤ 1.8 gallons/minute

- ▶ **New residential developments** must comply with the Department of Water Resources Model Water Efficiency Landscape Ordinance (MWELo) or with a more stringent landscape ordinance adopted by the local jurisdiction.
- ▶ This mandate took effect January of 2016 and results in a minimum 25% reduction in landscape water consumption.

Outdoor Water Consumption Cut By 25%

Why should focus turn to the Existing Housing Stock?

There are approximately 14 million homes and apartments in California today. On average, we are adding only 100,000 new units to that each year. At this rate, **a policy that focuses on new construction will only impact 7% of the total housing stock over the next decade.** While existing homes and commercial buildings are required by statute to retrofit their plumbing fixtures and install those which comply with water conservation standards required of new homes, that statute contains no penalty for non-compliance. As an example of the benefits to be gained by aggressively focusing on retrofit in existing housing stock, consider that many of these older homes are equipped with toilets manufactured in the 1940s through 1960s and are still using 4- or 5-gallon tanks compared with the 1.28-gallon tanks in new homes.



Vehicle Miles Traveled (VMT)

In December 2018, the California Resources Agency adopted new regulations for the implementation of the California Environmental Quality Act (CEQA). Among them is a new "environmental" impact known as **Vehicle Miles Traveled (VMT)**.

VMT will require projects to quantify how many miles home buyers or renters will drive to work, to the store, for recreation or any other purpose.

The ideological approach of VMT is to get people to abandon their individual vehicles and take public transit. Accordingly, the regulation views congestion as a good thing, since it slows down traffic.

- A 15% inclusionary housing requirement will add 10.6% (on average \$72,000) to the cost of the market rate homes in the project
- Eight stories or more is 5.5-7.5 times the cost to build a 2-story home

In the 2021 Priced Out study produced by NAHB, for every \$1,000 you increase the cost of a home in California, almost 12,000 California households are priced out of the market.

Californians' commute distances are inversely proportional to housing costs, i.e., resident drive farther to find housing that they can afford.



Net Energy Metering (NEM) 3.0

Current NEM 2 Issues

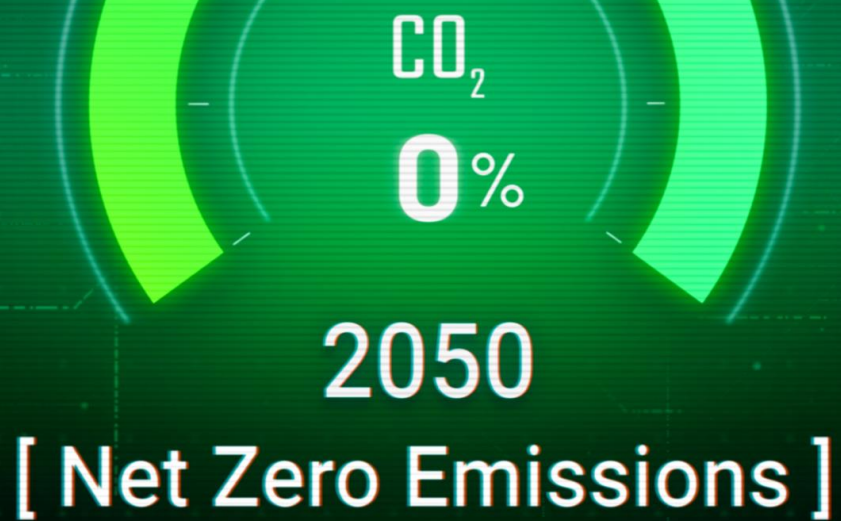
Current NEM rules in effect today provide a robust level of incentives for those with rooftop solar. This has helped foster the installation of over one million rooftop solar systems throughout California, by far the most in the nation. However, the current NEM rules do not establish a method by which rooftop solar owners pay into the pool of money that is used to maintain and upgrade the electrical grid (e.g.; fire-hardening, usual grid maintenance). This is analogous to the case where electric vehicle operators do not pay the gas tax which is used to maintain roads and highways. Also, studies have shown that those without rooftop solar systems are paying roughly \$170-\$200 a year to subsidize those with rooftop solar.

NEM 3.0 Proposed Decision

After lengthy deliberation, the PUC has issued a new proposed net energy metering tariff (NEM 3.0) that includes a monthly fee of \$8/kW per month, which would add an average of \$50 to the monthly electric bill of a typical solar customer. In addition, the NEM 3.0 proposal would reduce the value of credits given to customers in exchange for energy they send to the grid by about 80%. This current decision is strongly supported by labor, the utilities, and ratepayer advocates while strongly opposed by the solar industry.

CBIA's Concerns with the Current "Proposed Decision"

- CBIA's primary concern is the negative impact to the solar lease option, which 2/3rd of CBIA's homebuilders use in selling their homes.
- The proposed regulations effectively rewrites existing contracts for existing solar customers without providing them the necessary glidepath to make their existing contracts viable.
- While builders could shift to community solar farms to offset increase costs, there is only one community solar farm currently certified by the CEC (SMUD territory).
- The proposed reduction (80%) in NEM rate credit will worsen housing affordability.
- The \$8/kW fee places the "cost-effectiveness" of the rooftop PV mandate into question.



Embodied Carbon

Embodied carbon is the carbon dioxide (CO₂) emissions associated with materials and construction processes throughout the whole lifecycle of a building or infrastructure.

It includes any CO₂ created during the manufacturing of building materials (material extraction, transport to the manufacturer, manufacturing), the transport of those materials to the job site, and the construction practices used.

Put simply, embodied carbon is the carbon footprint of a building or infrastructure project before it becomes operational. It also refers to the CO₂ produced maintaining the building and eventually demolishing it, transporting the waste, and recycling it.

Embodied Carbon Questions

- Assembly Bill (AB) 2446
- Senate Bill (SB) 1297
- Product Costs?
- Product Performance?
- Product Availability?

We Want Housing For All!

- Rentals
- High Density Infill
- Single-Family
- ADUs
- Affordable
- Master Planned Communities
- Custom





Chris Ochoa

Chris Ochoa serves as CBIA's Senior Counsel for Codes, Regulatory and Legislative Affairs. Chris has nearly a quarter century of experience as an attorney and lobbyist navigating the national and state building code adoption process in Sacramento and Washington, D.C. As a practicing attorney and legislative advocate, Chris represents the CBIA before state boards and commissions, and at the State Legislature. Chris also represents the CBIA on several working groups and committees, including the CA State Fire Marshal's Wildfire Mitigation Advisory Committee and Chapter 7A Work Group, the CA Building Standards Commission's Building and Fire Code Advisory Committee, the National Association of Home Builders (NAHB) Climate Change Committee and Codes and Standards Sub-Committee, the CA Fire Safe Council, and the CA Building Officials (CALBO) Building & Fire and Legislative Committees.

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