

California Looks To Zero Emissions Buildings As Next Climate Frontier

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The 2018 Winter Olympics have just closed, but California's pursuit of clean energy is continuing unabated. After initiating the energy efficiency, the solar, and the electric car revolutions over the past two decades, several state lawmakers are looking to tackle the next frontier in clean energy: slashing the climate and air pollution from the use of fossil fuels in buildings.



Image courtesy of Wakeland Housing and Development Corporation

Burning fossil fuels in buildings, primarily in gas-fired furnaces and water heaters, is responsible for nearly half of all greenhouse gas emissions in California's building sector, as I and my co-author from the [Association for Energy Affordability](#) (AEA) noted in an [opinion piece published in Capitol Weekly today](#). And that's before accounting for pervasive leaks throughout the gas supply chain that release large quantities of methane, a greenhouse gas that is far more potent at trapping heat in the atmosphere than carbon dioxide.

These greenhouse gases are warming our planet. That's why when snowboarders Chloe Kim and Shaun White return home to California after dazzling on the halfpipe to win gold in Korea, there won't be much snow to greet them. The snowpack in the Sierra Mountains is 80 percent below normal, an ominous harbinger of more drought for a state already reeling from record wildfires, and a stark reminder that the most important challenge of all — the race against climate change — remains to be won.

Andrew Brooks, director of AEA's West Coast Operations, and I also noted in today's op-ed that burning natural gas in our homes is a major source of indoor and outdoor air pollution affecting our health, particularly in the Central Valley and the LA Basin that have some of the worst air quality in the country.

We need to address fossil fuel use for space and water heating

While California is leading the race to clean electricity, it has paid far less attention to the direct emissions from the use of fossil fuels to heat our buildings and our hot water. A group of state lawmakers is aiming to change that: Assemblymember Rob Bonta (D-Oakland), Assemblymember Laura Friedman (D-Glendale), and several co-authors have introduced bills that propose to realign the state's building energy policies with its clean energy goals.

Assembly Bill 3001 (Bonta) proposes to update well-intended but outdated policies that have historically favored the use of fossil natural gas as the fuel of choice to heat our buildings and hot water. The bill would unlock the use of modern clean heating technologies in our buildings, paving the way for deep cuts in climate and air pollution from the building sector. Assembly Bill 3232 (Friedman) aims to cut climate pollution from the building sector in half by 2030, and to require all new buildings to zero out their carbon emissions by 2030, meaning they would generate enough solar power to offset their annual energy-related emissions.

Champions like Assemblymembers Bonta and Friedman are carrying the torch for the next leg in the Golden State's race to stabilize the climate and provide pollution relief to millions of Californians. We hope the Legislature will support these bills, which will help ensure there's cleaner air for all of us to breathe, as well as — snow that future Olympians and everyone else can enjoy.

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CaliforniaGeo Responds—

Make no mistake. The corporate interests behind fossil fuels like natural gas have had their way in California for decades. They don't like anyone threatening their business model, particularly if it's a permanent departure to an increasingly renewable fuel source. But sometimes, a state has to walk its policy talk, anyway.

Sempra Utilities (the parent company of SoCal Gas and on whose board the governor's sister Kathleen sits) was responsible for Aliso Canyon, the U.S.'s largest methane leak on record. Nevertheless, SoCal's "regional vp for external and environmental affairs ripped the newly introduced AB 3232 in a clever and deceptive [Op-Ed in the Sacramento Bee on 4/22/18](#). It claimed that thousands of existing homeowners would have to pay for retrofit electric appliances (at great personal cost) even though they would prefer to stay with cheap, "natural" gas. The intent of 3232 is expressed here by its author:

From Assemblymember Laura Friedman (legislator-author of AB 3232, representing AD 43, Glendale)

AB 3232 - Unlike electricity generation, there are no state goals or mandates specifically aimed at reducing the carbon emissions in our more than 13 million homes, apartments, and commercial buildings California. AB 3232 would get California on a path to require all new buildings after 2030 to be zero-emissions buildings. It also would require the state to establish a strategy to achieve a reduction in the emissions from the state's existing building stock of 50 percent below the 1990 levels by January 1, 2030.

While all new California residential housing is to be ZNE (Zero Net Energy) by 2020 via previous regulation, the Title-24 Building Standards effective 1/1/17 attack this goal with two weapons previously developed in concert with the Public Utilities Commission, one of which (Time Dependent Valuation) has its origins in the late 1980s by the state's fossil utilities. First, ZNE will be "code defined."

That means that unlike the rest of the nation where ZNE refers to "carbonless, zero net energy on an annual basis by on-site means," The California brand is what the Energy Commission chooses to say it is. Second, all new residential housing currently planned for areas inside gas distribution service areas must be built with gas furnaces or boilers, and gas water heaters. Only by demonstration of lower cost electrically-driven alternative energy sources (through a complicated in-house computer model prior to permit issuance) will be exempt from this mandate, ignoring the future pricing of grid electricity containing far greater proportions of renewable generation for the life of such residential buildings. That constitutes protection of an outdated business model at the expense of the environment and the wishes of those who want to build "green."

If local building jurisdictions adhere to this feature within Title-24, then fossil fuel "protection" will be assured in all the most populous geography of California. We have the bright, shiny laws touting green everything in order to save the environment. But our regulatory environment is more polluted with outside influence than it has ever been.

—Bill Martin