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## SENATE COMMITTEE ON GOVERNANCE AND FINANCE

Senator Mike McGuire, Chair

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**Bill No:** SB 32  
**Author:** Cortese  
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### ***ENERGY: GENERAL PLAN: BUILDING DECARBONIZATION REQUIREMENTS***

*Requires cities and counties to identify goals, policies, objectives, targets, and feasible implementation strategies to decarbonize newly constructed commercial and residential buildings.*

#### **Background**

**General plans.** Every county and city must adopt a general plan with seven mandatory elements: land use, circulation, housing, conservation, open space, noise, and safety. General plans must also either include an eighth element on environmental justice, or incorporate environmental justice concerns throughout the other elements. Most of cities' and counties' major land use decisions—subdivisions, zoning, public works projects, use permits—must be consistent with their general plans. Development decisions must carry out and not obstruct a general plan's policies.

The Planning and Zoning Law says that the safety element's purpose is to protect the community from unreasonable risks from geologic hazards, flooding, and wildland and urban fires. In 2007, the Legislature expanded the general plan's contents related to flood hazards, requiring the safety element to contain:

- Information about flood hazards, listing 11 types of information.
- Based on that information, a set of comprehensive goals, policies, and objectives to protect against unreasonable flood risks.
- To carry out those goals, a set of feasible implementation measures.

These changes must appear in safety elements the next time that cities and counties revise their housing elements (AB 162, Wolk, 2007). In 2012, the Legislature expanded the safety elements' contents to include similar information for fire risks on land classified as SRA and VHFHSZ (SB 1241, Kehoe), and then again in 2015 to cover climate risks (SB 379, Jackson).

The California Supreme Court has called the general plan "the constitution for all future development" because it presents a vision and a set of principles for future growth in the community. It serves an important role in shaping the location and type of development that will occur, ensuring that there is adequate infrastructure to support that development, providing adequate open space, and mitigating future risks from fire, floods, and climate change. Zoning

ordinances then effectuate the requirements in the housing element and general plan—those ordinances are specific where the general plan is, well, general.

**Greenhouse gas reduction efforts.** California must reduce statewide greenhouse gas (GHG) emissions to a level 40 percent below 1990 levels by 2030, as provided by SB 32 (Pavley, 2016). The California Air Resources Board (CARB) is the lead agency implementing SB 32, and has developed the Climate Change Scoping Plan, which outlines the policies that the state will implement to reach the 2030 target, as well as reducing GHG emissions 80 percent below 1990 levels by 2050. SB 100 (De Leon, 2018) sets the goal of carbon neutrality for the state's electrical grid by 2045.

**Building decarbonization.** Building decarbonization is a term of art used to describe reductions in GHG emissions from the building sector. According to the California Air Resources Board (CARB), residential and commercial buildings are responsible for roughly 25 percent of California's GHG emissions when accounting for fossil fuels consumed onsite, refrigerants, and electricity demand. Of the 25 percent, roughly ten percent of emissions are attributable to fossil fuel combustion, including natural gas, with residential buildings accounting for slightly more of those emissions than commercial buildings. The Climate Change Scoping Plan identifies actions to reduce GHG emissions from the building sector, including progressively improving building codes and standards, pursuing voluntary efforts to exceed code requirements, and completing existing building retrofits. Several strategies can be deployed to reduce carbon emissions from the building sector. These include: improved energy efficiency of buildings and appliances, reducing carbon emissions from fossil fuel sources, ensuring cleaner sources of energy to operate buildings and associated appliances, addressing methane leaks, and others.

**Building codes.** The California Building Standards Code (Title 24 of the California Code of Regulations) contains building standards and regulations as adopted by the California Building Standards Commission. These standards include, among other requirements, structural standards for building safety (the Building Code), fire safety standards (the Fire Code), energy efficiency standards (the Energy Code), and standards for green buildings (CalGreen).

The Building Standards Code is updated on a three-year cycle—proposed standards will be adopted in 2021 and go into effect on January 1, 2023. Once adopted at the state level, local agencies in California then enact an ordinance to adopt the codes. Those ordinances may include amendments that are more stringent than the state codes, if the local governing body makes findings that the amendments are necessary because of local climatic, geological, or topographical conditions. CalGreen provides that local climatic, geological, or topographical conditions include environmental conditions established by the city, county, or city and county, meaning that local agencies can adopt more stringent green building requirements.

New construction and improvements to existing buildings must comply with the current building codes, and improvements to an existing building may trigger additional code upgrades for other parts of a building.

**California's building energy efficiency standards.** The California Energy Commission (CEC) adopts building energy efficiency standards that are cost effective for occupants over the 30-year lifespan of a building. The standards ensure that builders use the most energy efficient technologies and construction, save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants and help preserve the environment. These

measures can be found in Title 24, Parts 6 and 11, of the California Code of Regulations. State law also tasks the CEC with developing and implementing a comprehensive program to achieve greater energy savings in California's existing residential and nonresidential building stock that fall significantly below the current standards in Title 24. The CEC has also adopted a Building Action Plan that sets out a ten- year roadmap to use market forces to improve California's existing residential, commercial, and public building stock into high- performing and energy-efficient buildings.

**Building Decarbonization Assessment.** AB 3232 (Friedman, 2018) requires CEC to develop a plan to achieve the goal of reducing the emissions of greenhouse gases by the state's residential and commercial building stock by at least 40 percent below the 1990 levels by January 1, 2030. This "Building Decarbonization Assessment" is expected to illustrate the state's pathway to decarbonizing single-family, multifamily, and commercial buildings; identify challenges to and opportunities from decarbonizing; estimate the impact of decarbonization activities on the electricity grid; and illustrate topics and data gaps needing additional analysis in future proceedings. However, this report has not yet been completed.

**Local voluntary efforts related to GHGs.** Local agencies can adopt certain plans to reduce their greenhouse gas emissions and mitigate the climate impacts of their activities. One such document is a climate action plan (CAP). A CAP is a voluntary document that typically:

- Identifies baseline GHG emissions;
- Sets a target level of GHG emissions;
- Forecasts business-as-usual emissions without additional actions;
- Chooses strategies to reduce emissions to meet the target;
- Identifies implementation steps, including funding; and
- Provides for monitoring and tracking of emissions.

According to ARB's 2019 Report on the State of CAPs in CA, 181 cities and 21 counties have adopted Climate Action Plans, although few cities and counties have adopted new CAPs in recent years.

The California Environmental Quality Act (CEQA) requires public agencies, including local governments to analyze and mitigate the GHG impacts of "projects." CEQA's guidelines allow local agencies to adopt GHG reduction plans to more comprehensively analyzed the impacts from projects. A GHG reduction plan must:

- Quantify greenhouse gas emissions from activities within a defined geographic area;
- Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable;
- Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area;
- Specify measures or a group of measures to collectively achieve the specified emissions level;
- Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels; and
- Be adopted in a public process following environmental review.

Projects that comply with measures in the plan may be considered to not have a cumulative impact on GHG emissions.

Finally, some local governments have adopted “reach codes” that go beyond the state’s energy efficiency building standards to reduce the GHG emissions from buildings in their jurisdictions. Reach codes often involve a combination of building electrification—in other words, excluding natural gas appliances—and electric vehicle charging requirements. By some estimates, at least 38 jurisdictions in California have adopted reach codes. The author wants local governments to take additional actions to decarbonize buildings.

### **Proposed Law**

Senate Bill 32 requires, after January 1, 2023, each county and city, including charter cities, to make a one-time amendment to its general plan during the next cycle of updates to the plan, climate action plan or greenhouse gas emissions reduction plan, or building codes to identify goals, policies, objectives, targets, and feasible implementation strategies to decarbonize newly constructed commercial and residential buildings.

The amendments must include:

- A report describing greenhouse gas emissions data for existing commercial and residential buildings, including significant sources of the emissions.
- A summary of local, state, and federal policies, programs, and regulations that may assist in the decarbonization of existing and newly constructed commercial and residential buildings.
- A comprehensive set of goals, policies, and objectives that may assist in decarbonizing newly constructed commercial and residential buildings in the city or county.
- A set of feasible implementation measures designed to carry out those goals, policies, and objectives.

These changes must promote compliance with, and include a consideration of the Building Decarbonization Assessment and the state’s building energy efficiency standards. They must also include the following targets for the decarbonization of newly constructed commercial or residential buildings:

- GHG reductions consistent with the state’s target of 40 percent below 1990 levels by 2030; and
- Carbon neutrality by 2045.

At least 45 days before adopting the provisions required by the bill, each city and county must send a copy of its draft amendments to the CEC. The CEC may review the draft amendments to determine whether the amendments will lead to building decarbonization. Within 30 days of receiving the draft amendments, the CEC may send any comments and advice to the city or county. The legislative body of the city or county must then consider the CEC’s comment and advice prior to the final adoption of building decarbonization amendments. If the CEC’s comments and advice are not available by the time scheduled for the final adoption of the building decarbonization amendments, the legislative body of the city or county may adopt the

amendments without considering them. SB 32 states that the CEC's comments are solely advisory.

SB 32 defines its terms and includes findings and declarations to support its purposes.

### **State Revenue Impact**

No estimate.

### **Comments**

1. Purpose of the bill. According to the author, "The State Air Resources Board finds that California's building energy use accounts for almost 25 percent of our statewide greenhouse gas emissions. In 2016, California's building stock was responsible for directly emitting 37 million metric tons of greenhouse gases. Because a third of California's 2045 building stock will be built between now and 2045, prioritizing new construction that include decarbonization technologies is key to reaching the state's fossil fuel reduction targets, including returning the state to its 1990 GHG emission levels by 2020, going 40 percent below our 1990 GHG emission levels by 2030, and achieving carbon neutrality by 2045. Every three years, cities and counties across the state adopt the new building energy efficiency standards for all buildings, or Title 24 of the California Code of Regulations, that are updated by the California Energy Commission. Given California's ambitious climate goals and the mounting dangers of climate change on our environment, health, air quality, and well-being, now is an opportune time to expand the scope of our previous efforts and take steps to assist in municipalities' planning and implementation of state energy efficiency targets. SB 32 would require cities and counties in California to update their General Plan, climate action or greenhouse gas emissions reduction plan, or building code to include a report on greenhouse gas emission data for existing commercial and residential buildings; a summary of local, state, and federal policies, programs, and regulations that may assist in the decarbonization of existing and newly constructed commercial and residential buildings; and a comprehensive set of feasible implementation strategies to decarbonize newly constructed commercial and residential buildings consistent with the state's emission reduction targets."

2. Keep it simple. SB 32 requires every individual city and county to conduct their own analysis of building GHG emissions, identify policies to decarbonize buildings, and then implement them. These efforts could prove duplicative: it is unclear that the efforts needed to decarbonize newly constructed buildings vary significantly from one jurisdiction to another, so every jurisdiction would be required to complete analysis with similar conclusions: wait for the state energy grid to be decarbonized in 2045 and require all electric buildings. Furthermore, the CEC's Building Decarbonization Assessment may offer solutions on how to achieve building decarbonization statewide, and the CEC is appropriately positioned to advance decarbonization through the energy code. The state's building code process is relatively straightforward: locals must adopt the state standards, and can go beyond if they can justify the need based on specific factors. Local governments typically enact an ordinance adopting the code, and even if they don't, building code updates automatically take effect at the local level. Builders must then comply with those standards for new construction. This process means that if the CEC wants to, or was told to by the Legislature, it could make major changes that take effect automatically across the entire state. Does the value of specific, local strategies to decarbonize buildings outweigh the additional cost and complexity that is likely to accompany it?

3. Marginal benefit. California has long been a leader in GHG emissions reduction. As a result, the state has numerous programs to reduce GHG emissions in buildings already, primarily through a variety of energy efficiency programs. These programs span a variety of sectors encompassing residential homes and commercial buildings, large and small appliances, lighting and HVAC, industrial manufacturers, and agriculture. Within those sectors, efficiency programs may use any number of different tools: financial incentives and rebates, research and development for energy efficiency technologies, financing mechanisms, codes and standards development, education and public outreach, marketing, and others. These programs have reduced Californians' energy use relative to what it would have been otherwise. The CEC is also currently involved in efforts to decarbonize existing buildings, and California has many broader efforts in place to decarbonize its electrical grid so that the energy used in buildings comes from climate-friendly sources. SB 32 layers yet another set of policies on top of these existing policies. Given these ongoing and well-established efforts, will SB 32 result in substantial reductions beyond what the state would see from its other programs?

4. Charter city. The California Constitution allows cities that adopt charters to control their own "municipal affairs." In all other matters, charter cities must follow the general, statewide laws. Because the Constitution doesn't define "municipal affairs," the courts determine whether a topic is a municipal affair or whether it's an issue of statewide concern. SB 32 says that its statutory provisions apply to charter cities. To support this assertion, the bill states that it addresses a matter of statewide concern.

5. Mandate. The California Constitution requires the state to reimburse local governments for the costs of new or expanded state mandated local programs. Because SB 32 adds to the duties of local planning officials, Legislative Counsel says that the bill imposes a new state mandate. SB 32 disclaims the state's responsibility for providing reimbursement because local governments can charge for the costs of implementing the bill's provisions.

### **Support and Opposition** (4/12/21)

Support: Sam Liccardo, Mayor of San Jose; 350 Bay Area Action; 350 Sacramento; 350 Silicon Valley; 350 South Bay Los Angeles; 50 Acterra Action for A Healthy Planet; Acterra; Activesgv; Activesgv, a Project of Community Partners; Bay Area for Clean Environment; California Association of Student Councils; California Solar & Storage Association; Carbon Free Silicon Valley; Climate Reality, Santa Clara County Chapter; Enigmatics; Environment California; Futures Unbound; Glendale Environmental Coalition; International Interior Design Association Northern California Chapter; Menlo Spark; Mothers Out Front; Mothers Out Front Silicon Valley; Pacifica Climate Committee; Physicians for Social Responsibility - San Francisco Bay Area Chapter; Plant-based Advocates - Los Gatos; San Diego 350; San Diego Green Building Council; San Fernando Valley Chapter of The Climate Reality Project; San Jose Community Energy Advocates; Sierra Club; Sierra Club California; Sierra Club Loma Prieta Chapter; Silicon Valley Democratic Club; Silicon Valley Youth Climate Action; South Bay Progressive Alliance; Sunrise Movement - Silicon Valley; The Climate Center; The Climate Reality Project Bay Area Chapter; The Climate Reality Project Bay Orange County Chapter; The Climate Reality Project San Diego Chapter; United Methodist Women of The El Camino Real District; Westmont's Ecallogy Club; Zanker Recycling; 10 Individuals.

Opposition: California Building Industry Association.

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