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Understanding Neighborhood Decarbonization in California: What Do We Know about Senate Bill 1221?

FREQUENTLY ASKED QUESTIONS

BACKGROUND

As California strives to achieve its goal of carbon neutrality by 2045, the state has increasingly focused on reducing greenhouse gas (GHG) emissions from buildings, which account for more than one-third of total GHG emissions in the state. Several policies and programs aim to transition buildings from gas-based systems to zero-emission alternatives—part of a process called building decarbonization. This document addresses key questions about residential building decarbonization in California, with a focus on Senate Bill (SB) 1221, an initiative that establishes a neighborhood decarbonization pilot program to explore how entire residential blocks or neighborhoods can transition away from gas service in a coordinated way.

As the state agency responsible for SB 1221 implementation, the California Public Utilities Commission (CPUC) is working with stakeholders to develop the program design and guidelines for deployment in 2026. Below, we interpret statutory materials and CPUC documents and webinars to answer common questions about building decarbonization and SB 1221. As the CPUC is still determining many key implementation details, we note throughout where important questions are yet to be answered publicly. We may publish an updated or supplementary FAQ later in 2026, when more details have been released.

SECTION 1

INTRODUCTION TO BUILDING AND NEIGHBORHOOD DECARBONIZATION

What is building decarbonization, and why is the state pursuing it as a climate strategy? | Q

A

Building decarbonization—the process of transitioning buildings from fossil fuels to clean renewable energy—is a critical strategy to reducing building-sector GHG emissions statewide. This typically includes two steps: electrification (transitioning all energy use to electricity) and gas decommissioning (removing gas appliances and infrastructure).

Decarbonizing homes starts with electrification; transitioning from fossil fuels to electricity enables homes to reduce emissions in tandem with the local electric grid. This means replacing uses of methane gas—the fossil fuel commonly used for space and water heating, cooking, and clothes drying—with electric options, such as electric stoves and electric heat pumps for heating and cooling. Residents can also further reduce emissions with solar panels, battery energy storage systems, electric vehicle chargers, and weatherization measures to improve energy efficiency.

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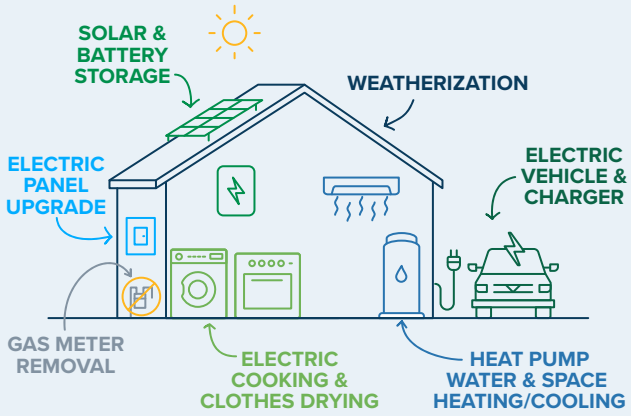
Once homes no longer need gas, the next step is gas decommissioning, which means ending gas service and removing the pipelines and other infrastructure used to deliver it. Gas decommissioning is an important step in the transition away from fossil fuels because pipelines are costly to maintain with periodic repairs and replacement, often leading to utility bill increases. Pipelines can also pose serious safety risks such as gas leaks and explosions, and air pollution from gas appliance use harms health.

Since buildings produce more than one-third of all GHG emissions in California, building decarbonization is essential to reducing GHG emissions statewide. Building decarbonization also offers co-benefits, such as indoor air pollution reduction, long-term energy cost-effectiveness, and consumer bill savings.

Ultimately, decarbonized buildings still use electricity, so the level of emissions reductions depends on the source of this electricity. When powered by clean energy, all-electric buildings release little to no GHG emissions compared to buildings that use gas.

Figure 1. Building Decarbonization Components



Source: Adapted from Rewiring America

What is neighborhood decarbonization? | Q

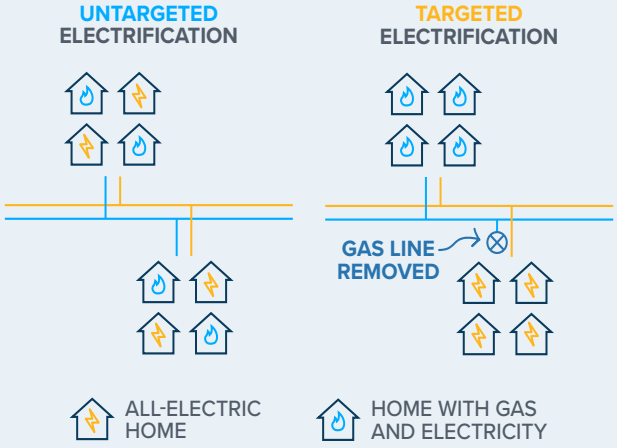
A

Neighborhood decarbonization, also known as zonal decarbonization, is a strategy to electrify residential buildings throughout a given residential area served by a specific gas pipeline. Removing the need for gas service enables the existing gas infrastructure to be decommissioned.

Building decarbonization has largely relied on individual households switching a fossil fuel-based appliance to an electric one, one at a time and often when appliances need to be replaced. Neighborhood decarbonization is seen as a complementary strategy, enabling larger clusters of homes to end gas service at the same time. Electrifying many homes served by the same pipeline has the potential to avoid major capital investments in gas infrastructure. Replacing aged gas distribution lines is expensive, and utilities pass the costs onto their customers through higher rates.

Neighborhood decarbonization can save ratepayer dollars by removing—instead of repairing or replacing—gas pipelines at scale, avoiding the risk of these pipelines becoming stranded assets in an increasingly electrified

Figure 2. Neighborhood-Level Gas Decommissioning



Source: Adapted from Energy + Environmental Economics (E3)

economy. However, this generally requires all affected households to opt out of gas service, releasing the gas utility of its legal obligation to serve (the requirement to provide gas to all homes in its service territory). This legal obligation, discussed further below, has been used to thwart past efforts to decommission gas infrastructure at scale. Additionally, the residential areas affected by gas pipeline replacements generally do not have clear governance structures to make decisions about electrification and decommissioning; our future research will explore community governance structures and their potential roles in gas decommissioning.

Where is neighborhood decarbonization happening? | Q

A

Despite funding issues and other barriers, several pilot projects and programs are in progress, aiming to decarbonize blocks or neighborhoods across California and in other states.

Several small-scale or pilot neighborhood decarbonization initiatives have begun to emerge in California and other states. Local projects to electrify or fully decarbonize specific blocks or neighborhoods have been attempted (and some are still in progress) in several California cities, including Richmond, Albany, Oakland, Monterey, Santa Cruz, and the Mission District of San Francisco. Examples of neighborhood-scale decarbonization projects also exist outside California, including in Ohio and Michigan. There are also utility-run neighborhood-scale decarbonization programs, such as Pacific Gas & Electric Company's (PG&E) Powerful Neighborhoods and Electrify My Block programs, which will allow PG&E to use savings from gas decommissioning to pay for home electrification.

Some of these projects have faced substantial barriers or remain incomplete, largely due to funding-related issues. PG&E's effort to electrify student housing at California State University, Monterey Bay ended due to disagreements about whether the funding should come from its capital budget (which earns a rate of return, bringing the company profit) or the operating budget (which does not). On the other hand, some projects persist in the face of setbacks. For example, after losing promised federal funds for a pilot project, the City of Albany is now funding the project from its own Climate Action and Adaptation Reserve Fund.

SECTION 2

OVERVIEW OF SENATE BILL 1221

What is Senate Bill 1221? | Q

A

Senate Bill 1221 (Min) is a California law adopted in 2024 that lays the groundwork to advancing neighborhood decarbonization across the state. It calls for the California Public Utilities Commission (CPUC) to establish a pilot program of up to 30 neighborhood-level gas decommissioning projects until 2030.

SB 1221 sets forth requirements for gas utilities and the CPUC to initiate and implement the pilot program. The law requires each investor-owned gas utility to submit annual

maps of potential and foreseeable gas distribution line replacement projects to the CPUC. Using information from the 2025 maps, the CPUC designated priority neighborhood decarbonization zones—potential areas for the pilot projects—in December 2025.

Next, the law requires the CPUC to establish and administer a voluntary program of up to 30 pilot projects in the priority decarbonization zones—though there may be more than 30 if there are projects with 100% consent, as these projects do not count toward the cap. While SB 1221 focuses primarily on neighborhood decarbonization, the law also requires the CPUC to evaluate the costs, benefits, and implementation barriers of thermal energy networks. SB 1221 implementation is managed through the CPUC's Long-Term Gas Planning Rulemaking, a formal regulatory process through which the state plans for the future of the gas system as California transitions toward renewable energy.

KEY RESOURCES

The following resources from the CPUC are central to SB 1221 and its implementation:

- SB 1221 bill text (September 25, 2024)
- Scoping memo (Originally issued January 31, 2025; amended April 21, 2025; October 16, 2025; and March 4, 2026)
- Decision on priority neighborhood decarbonization zones (Proposed decision released November 13, 2025; final decision released December 18, 2025)
- Webinar on SB 1221 decarbonization pilots (February 12, 2026)
- Frequently asked questions (March 2026)

Additional resources for interested readers include the following:

- A Roadmap for Zonal Decarbonization in California (UCLA Emmett Institute on Climate Change & the Environment, January 2026)
- Avoiding Gas Distribution Pipeline Replacement through Targeted Electrification in California (Energy & Environmental Economics, June 2024)
- CEC Gas Decommissioning Northern California Pilot (Gridworks, 2023–2024)
- Neighborhood Scale: The Future of Building Decarbonization (Building Decarbonization Coalition, 2023–2024)

What is the purpose of the SB 1221 voluntary neighborhood decarbonization program and pilot projects? **Q**

A

The voluntary program and pilot projects reduce the bureaucratic and legal barriers that prevent neighborhoods from transitioning from gas to electricity, and provide an avenue to collective electrification (a prerequisite to neighborhood-scale gas decommissioning).

The voluntary program aims "to facilitate the cost-effective decarbonization of priority neighborhood decarbonization zones" by removing barriers to transitioning off of gas in those zones. SB 1221 reduces the percentage of affected customers that must give their consent for gas service to cease from 100% to 67%. Additionally, the pilot projects will enable the gas utility to stop gas service and remove gas infrastructure in the affected area, while fulfilling its legal obligation to serve the customers in their service area. This statutory obligation has long been a barrier for utilities to decommission gas, as there is no clear mechanism—outside of the SB 1221 context—for relieving utilities of this obligation.

However, concurrent to SB 1221, the state is considering legislative changes that modify or redefine the regulatory requirement to enable delivery of energy alternatives. For example, legislation has been proposed in 2026 to further grant homeowners the choice to electrify their homes when their gas line is scheduled for replacement.

Where are the SB 1221 priority neighborhood decarbonization zones, and how were they selected? Q

A

The CPUC established 151 initial priority neighborhood decarbonization zones across 14 counties. The selection was primarily based on support from local government and community partners and the concentration of gas distribution replacement projects.

The CPUC designated 151 census tracts as priority neighborhood decarbonization zones. The tracts are identified in a list in Appendix A of the 2025 Annual Report and on utility-provided maps, including for PG&E, Southern California Gas Company, San Diego Gas & Electric, and other utilities listed here.

The CPUC outlined its methodology for selecting these zones in a decision released on December 18, 2025. It primarily targeted tracts where there was existing support from local government and community partners, and where the gas utility maps showed relatively high concentrations of upcoming gas distribution line replacement projects. Under SB 1221, the agency was also required to consider two additional factors: (1) the presence of disadvantaged (DAC) or low-income communities in high-temperature or low-temperature climate zones that disproportionately lack cooling and heating; and (2) the presence of environmental and social justice communities as defined in the CPUC Environmental & Social Justice Action Plan. CPUC relied on the latter factor in counties where 25 or more census tracts have local support and a concentration of replacement projects. Though these initial zones have been established, CPUC has noted that there will be an update to the initial list of zones by December 31, 2026.

How can individuals or organizations become involved with the implementation of SB 1221? Q

A

There are three main ways to participate in the CPUC stakeholder process: (1) become an official party to the Long-term Gas Planning Proceeding, (2) become a joint party with another official party, or (3) submit public comments as a member of the public.

Currently, the main platform for SB 1221 discussions is the Long-term Gas Planning Proceeding at the CPUC. There are formal and informal ways to engage with the CPUC. The formal pathway requires that you apply to become a party or joint party to the proceeding and structure your comments in a certain format once you become a party. While it may require much time and effort, your comments will be considered meaningfully. On the other hand, engaging informally with the CPUC means submitting comments via its public comment portal, public participation hearings, or email. For example, members of the public may convey their interest in having their neighborhood designated as a decarbonization zone by submitting a comment with the census tract number in the online docket. While this pathway typically takes less time and effort, informal comments may not be as influential as formal comments.

SECTION 3

SB 1221 PILOT PROJECTS: WHAT WE DO AND DON'T KNOW

Where and when will the neighborhood decarbonization pilot projects take place? | Q

A

Up to 30 pilot projects will take place between 2026 to 2029 in the priority neighborhood decarbonization zones identified as census tracts in the service territories of the state's major gas utilities. However, there may be more than 30 projects if there are projects with 100% consent from the affected property owners.

Projects are expected to be smaller than these census tract zones, depending on the scale of pipelines that need to be replaced. The locations of potential projects within each census tract are not publicly shared, but a CPUC ruling establishes that gas companies must provide street-by-street information on potential projects to parties that sign a preapproved nondisclosure agreement.

SB 1221 also states that the pilots should not affect more than 1% of each gas utility's customers within its service territory. With approximately 11 million residential gas customers in the state, this means SB 1221 pilots could affect up to 110,000 customers. The pilots are expected to take place between 2026 and 2029.

What will be the process of proposing, selecting, and implementing the pilots? | Q

A

While the exact process has yet to be defined, gas utilities will likely identify potential pilot projects, obtain voluntary consent from at least 67% of the affected customers of each pilot, and submit applications to the CPUC. Employing a stakeholder-informed evaluation criteria, the CPUC will then select up to 30 projects for implementation through 2029.

In general, gas utilities are required to obtain consent from 100% of affected customers before decommissioning a gas line. This unanimous consent requirement has been a significant barrier to transitioning neighborhoods to renewable energy in California. However, SB 1221 lowers the consent threshold to 67% for these pilot projects, creating a more feasible pathway for neighborhood-scale decarbonization. Utilities will be required to show evidence that 67% of property owners approve of each proposed pilot project.

The specific process for how utilities submit their pilot applications and obtain consent will be determined in the pilot program design process (Track 3 of the Long-term Gas Planning Proceeding, which must conclude by July 1, 2026). During this process, the CPUC will also deliberate the criteria for how to evaluate the pilot project applications set forth by gas utilities. As these rules are still being shaped, stakeholders and members of the public are encouraged to participate in the proceeding.

What will motivate utilities to implement pilot projects? | Q

A

The CPUC may require utilities to propose and implement a certain number of pilot projects. Additionally, dual-fuel utilities may pursue pilot projects because they can replace their gas service with electric service, leveraging their electricity business model.

Dual-fuel utilities may be motivated to propose pilot projects because they will not lose business through electrification—they can replace gas service with electric service, maintaining their existing customers. However, gas utilities are likely to lose gas customers due to gas decommissioning, complicating their motivation to propose pilot projects. Gas-only utilities that pay for zero-emission alternatives in lieu of repairing or replacing gas pipelines will be able to recover the cost of this investment through rates, though the rate of recovery has yet to be determined. As part of ongoing SB 1221 implementation, the CPUC will establish guidance to gas utilities on how a zero-emission alternative may be deemed an adequate substitute for gas service, and what types of costs related to SB 1221 implementation will be eligible for cost recovery. During this ongoing process, gas utilities are expected to highlight potential risks to their existing business models and propose approaches for recovering costs related to electrification measures.

Who will pay for the gas decommissioning involved in the pilot projects? | Q

A

Gas utilities will pay for pipeline decommissioning and recover these costs from their ratepayers. However, SB 1221 requires projects to be cost-effective—meaning the decommissioning projects should cost less than the alternative gas pipeline replacements and repair. While utilities are also encouraged to use nonratepayer funding when available, there is no new state funding allocated through SB 1221.

While ratepayer and nonratepayer funding are expected to be used, SB 1221 states that the total cost of the zero-emission alternatives should be lower than what would have been spent with gas pipeline replacements and repair. Gas utilities are also prohibited from treating behind-the-meter costs associated with the pilot (e.g., new appliances and electrical panel upgrades) the same as capital costs that are required to return a profit. This consumer protection mechanism removes the utility profit incentive to purchase the most expensive appliances and conduct unnecessary household retrofits. During the program design process, the CPUC will establish the criteria and methodology of determining the cost-effectiveness of the zero-emission pilot project as compared to a gas pipeline replacement or repair. The CPUC will also consider what cost recovery processes, provisions, and/or mechanisms it should authorize for the pilots if ratepayer funds are approved for cost recovery. It is important to note that there is no new state funding included in the bill.

Who will pay to electrify homes no longer served by gas utilities as a result of a pilot project? | Q

A

It is unclear whether the pilot program will establish funding support for affected customers to electrify their homes. Customers may be required to pay for home electrification and/or seek funding incentive programs for support. However, it is possible that the utility cost savings from decommissioning could be sufficient to electrify homes.

CPUC staff have indicated that SB 1221 intends for utilities to use funds that would usually be spent on maintaining and replacing the gas infrastructure to pay for the pilot projects, potentially including costs of electrification (and research suggests that this may pencil out financially, with pipeline maintenance savings covering electrification costs).

Additionally, the agency's frequently asked questions specify that "the zero-emission alternative must cost less than replacing, repairing, or continuing to operate the gas asset." However, the agency has not confirmed that the utility will be required to fund the zero-emission alternatives as part of the pilot program, which means that customers in pilot project areas may be responsible for electrifying their homes. In this case, customers can seek funding from electrification incentive programs, including through their electric utilities, city and state government, and other sources.

What will the pilot project implementation process look like? | Q

A

This process has yet to be determined. The CPUC and stakeholders will soon deliberate on and shape this process, including how gas utilities should collaborate with local governments, electric utilities, and community partners on pilot implementation.

This will be discussed and determined with stakeholder input during the program design process and subsequent implementation of SB 1221. More specifically, the program design process (ongoing through June 2026) will consider the criteria for determining cost-effectiveness; how gas utilities demonstrate collaboration with local governments, community organizations, and electric utilities; and the cost recovery process. After the program is underway, the CPUC will gather input on how insights drawn from the program can further improve SB 1221 implementation and influence the state's future decommissioning efforts. Stakeholder input is welcome to influence what the implementation process of the pilot projects should look like.

SECTION 4

COMMON CONCERNS ABOUT BUILDING DECARBONIZATION AND SB 1221

Will there be reliable energy access in decarbonized neighborhoods? | Q

A

Gas utilities can only cease service to customers that have an alternate source of energy (usually electricity). Customers in all-electric homes may be more impacted by reliability issues from power outages than those with gas access. However, energy storage and solar panels can significantly improve reliability.

Before a gas utility ceases service to a project area, the CPUC must determine that "adequate substitute energy service is reasonably available to affected customers," as noted in the Scoping Memo. Most customers will choose electricity as this substitute. The resulting all-electric homes may be more affected by power outages than homes that use gas because some gas appliances can still be used during an outage. Solar panels and battery systems can make all-electric homes more resilient, though these may be expensive and inaccessible for many households. Ultimately, the targeted pilot approach of SB 1221 allows the CPUC and gas utilities to evaluate reliability risks in a more controlled environment before considering larger-scale implementation.

How will SB 1221 and neighborhood decarbonization affect energy expenses for participating customers?

A

While gas utilities can increase rates to recover certain costs related to SB 1221, these costs are intended to be lower than the cost of maintaining the replaced gas infrastructure. Households that are disconnected from the gas system and transitioned entirely to the electric grid will not pay these costs, as they will replace their gas bill with increased electric bills. It is not yet clear whether affected customers will need to cover up-front costs of electrifying their homes.

Households who remain connected to gas service may see increased gas rates, but the statutory cost-effectiveness requirements are in place to keep increases in check. Gas pipeline replacements are expensive and a major driver of bill increases. Through the pilot projects, gas utilities will remove gas lines that are due for replacement, providing cost savings from these significant expenses. On the other hand, prematurely removing infrastructure before the end of its useful life means the utility is unable to recover the revenue that would have been collected during the asset's remaining years. SB 1221 allows utilities to recover these costs by increasing rates for the remaining gas customers. But the law requires a cost-effectiveness analysis, meaning the CPUC must determine that the project costs are "just and reasonable" before utilities can increase rates for customers, preventing substantial gas rate increases.

Customers who go all-electric will no longer receive gas bills, as they will not be using any gas. Instead, all of their energy spending will go toward their electric bills. Higher electric bills will be offset partially or entirely by eliminating gas bills, making it difficult to predict whether an all-electric household will pay more or less for energy after electrification. The answer depends on the appliances, energy usage, and home upgrades. For example, our research estimates that most electrification upgrades lead to lower total energy bills in Los Angeles, and some utilities provide a bill analysis to predict the outcome for customers considering electrification.

It is not yet clear whether utilities or customers will be expected to pay for the up-front costs of zero-emission alternatives (such as electric appliances and home upgrades) required for decommissioning to occur. The statute requires that there must be an "affordable, adequate, efficient, and just and reasonable" gas alternative for low-income customers. It is not clear whether this would preclude electrification measures paid for by households.

If utilities cover the up-front costs of implementing electrification or other alternatives, they may be able to recover these costs through increased rates as they would for pipeline replacement costs. In the program design process, the CPUC will consider what costs may be eligible for recovery, and what rate of return the utility can recover. This presents an opportunity to consider gas utilities covering the up-front costs of the appliances and upgrades. While this may shift some of the cost burden to ratepayers, both the proceeding and statute require that zero-emission alternatives are cost effective and do not exceed the costs that would have occurred with gas pipeline replacement or repair.

How does this law affect consumers' ability to choose for which energy sources they use? | Q

A **Under SB 1221, some customers may have to switch from gas to electricity even though they do not want to. Up to 33% of customers affected by each project will need to transition from gas without agreeing to decarbonize if the other 67% of affected property owners consent to the pilot.**

As described above, while SB 1221 is considered voluntary for customers, it shifts the choice from an individual level to a neighborhood level. This choice is reflected in the requirement for at least 67% to agree. To help ensure this process is fair, SB 1221 includes a few protections. The program is targeted in areas where there is already broad support for its implementation, as reflected in the CPUC's method of selecting priority zones. In addition, SB 1221 only applies in areas where gas pipelines are in need of repair or replacement, meaning SB 1221 presents an alternative to costly pipeline repair but does not eliminate the choice for gas. While it is possible that up to 33% of affected customers may want to keep gas, this threshold for agreement is higher than the 50% simple majority required for citizen-initiated local tax measures (more comparable to the 67% supermajority required for government-initiated tax measures).

AUTHORSHIP

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UCLA Luskin Center for Innovation

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