FRONTRUNNER: CITY & COUNTY OF SAN FRANCISCO

SAN FRANCISCO ACCELERATES DECARBONIZATION VISION WITH ALL-ELECTRIC MEASURE

OVERVIEW

The second most densely populated city in the U.S, San Francisco is the financial, cultural and commercial center of northern California, and the only consolidated city-county in the state. Perched at the tip of the San Francisco Peninsula, the community consists of a culturally diverse population and attracts visitors from around the world.

EXTENDING THE DECARBONIZATION VISION

San Francisco policymakers have adopted a 30-year perspective, reflecting on progress compared to a 1990 greenhouse gas (GHG) emissions baseline and what to achieve in the upcoming 30 years. From 1990-2020, the community reduced GHG emissions from all buildings by 50% while the economy more than doubled in size and population increased 20%. A key strategy contributing to these efforts has been consistent adoption of reach codes. San Francisco first implemented a reach code in 2008, and has adopted reach code packages amending every state building efficiency standard since then. The city adopted provisions that exceeded the 2016 Energy Code by requiring solar PV or vegetative rooftops, maintenance of GreenPoint Rated requirements for residential, and expanding EV readiness. For the 2019 Energy Code, the city focused on increased efficiency requirements for mixed-fuel buildings with an all-electric provision for new city buildings.



One of San Francisco's iconic landmarks, the Ferry Building houses a food hall, offices and serves as the terminal for ferries traveling the Bay. Completed in 1898, the bulding is a designated San Francisco landmark and is listed in the National Register of Historic Places.

In 2018, the city hosted the Global Climate Action Summit (GCAS), where more than 100 state and national governments, 70 cities and numerous large companies committed to carbon neutrality by midcentury. At GCAS, San Francisco Mayor London Breed along with 23 mayors from around the world set the agenda for the next 30 years by pledging to eliminate carbon emissions from new construction citywide (by 2030) and from all buildings citywide by 2050. In 2019, San Francisco Supervisor Raphael Mandelman followed by leading the Board of Supervisors to declare a Climate Emergency, and Mayor Breed convened a Zero Emission Building Taskforce (ZEBT) - gathering leaders from across the community to provide guidance on how best to fulfill the City's commitments equitably and effectively. The ZEBT organized into working groups with representation from a wide range of stakeholders. One key working group, focused on new construction, brought together participants from key perspectives, including community and neighborhood advocacy groups, affordable housing developers, commercial and residential owners and developers, investors, design professionals, environmental advocates, workforce and labor representatives, and City departments. Staff provided supporting technical, legal, financial, and budgetary analysis, as well as considerations of administrative practicality.

The New Construction working group developed recommendations for an all-electric new construction ordinance, designed to address the risks to health, safety, resilience, and equity that natural gas infrastructure, indoor combustion of natural gas, and climate change pose to San Francisco.

Supervisor Mandelman drafted an ordinance incorporating the recommendations of the New Construction Workgroup. The ordinance was introduced to the Board of Supervisors in June, which kicked off a series of more than a dozen public meetings, ultimately leading to unanimous approval November 10, 2020. As Supervisor Mandelman recognized, “Building electrification is a critical step in addressing the serious public health and safety hazards of natural gas, and of course the ever-intensifying climate crisis. Natural gas pollutes our homes and workplaces, contributing to respiratory illnesses like asthma, is responsible for fires and explosions especially in a major earthquake, and is the second leading source of greenhouse gas emissions in San Francisco, accounting for 40% of our total emissions. Especially in this year of historic wildfires and record temperatures, I was proud to author the ordinance requiring all-electric new construction in San Francisco and add our voice to the growing statewide movement to phase out natural gas in California.”



The residential stakeholder working group of the Zero Emission Building Taskforce gathered in early 2020 (prior to the pandemic) for a public session to develop recommendations on how to fulfill the City’s decarbonization commitments equitably and effectively. Photo used with permission from San Francisco Department of the Environment.

The staff report notes that natural gas line ruptures caused half of the fires in San Francisco after the 1989 Loma Prieta earthquake, and even today, it is estimated that after a 7.9 earthquake it would take six months to restore natural gas services citywide, while electricity could be restored in less than a week.

IMPLEMENTING THE ALL-ELECTRIC MEASURE

The All-Electric New Construction Ordinance requires all applications for permits for new construction submitted on or after June 1, 2021 to be all electric. Limited exceptions allowing mixed fuel in new construction include:

- Demonstration of technical or physical infeasibility documented by third party engineering review with a CABEC Certified Energy Analyst participating
- An interim exception between June 1-December 31, 2021, allows permit for new mixed-fuel buildings that include gas piping, fixtures or infrastructure solely for cooking equipment within a designated commercial food service area. Beginning January 1, 2022, the exception allowing limited gas for commercial cooking will narrow, requiring proof that a specific food service company requires gas for a specific process.



Linked to the East Bay by the Bay Bridge, San Francisco is home to a culturally diverse population of nearly 900,000 people.

City staff are actively engaged in community outreach and education about the new ordinance. To support understanding and compliance, the City is encouraging contractors, engineers, architects, and developers to participate in training and classes, including those offered online and on-demand by EnergyCodeAce, the PG&E Pacific Energy Center, BayREN Codes and Standards, and the Food Service Technology Center. “We appreciate investment by the Statewide Codes and Standards program and BayREN Codes and Standards – which have provided invaluable technical support

and cost-effectiveness analyses. And we are indebted to local stakeholders and city staff – foremost the Department of Building Inspection – for countless hours serving on the Zero Emission Buildings Task Force and participating in dozens of public meetings in consideration of the major step of requiring all-electric for all new construction," says Barry Hooper, Senior Green Building Coordinator with the San Francisco Department of Environment.

RESOURCES

Documents related to the City & County of San Franscisco's reach codes and recent natural gas measure are available here:

Information about ZEBT and a link to subscribe to Department of the Environment newsletter: https://sfenvironment.org/zebtaskforce

Findings of the Zero Emission Buildings Taskforce, New Construction Workgroup

Ordinance

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