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SFEnvironment Supports Decarbonization in 2018 IEPR

Additional submitted attachment is included below.



SF Environment

Our home. Our city. Our planet.

A Department of the City and County of San Francisco

Mark Farrell
Mayor

Deborah O. Raphael
Director

June 28, 2018

Cm. David Hochschild
Cm. Andrew McAllister
California Energy Commission
Dockets Office, MS-4
1516 Ninth Street
Sacramento, CA 95814-5512

Dear Commissioners Hochschild and McAllister,

The City and County of San Francisco's ("the City") Department of Environment (SFE) supports the California Energy Commission's (CEC) efforts to incorporate deep decarbonization pathways in California's 2018 Integrated Energy Policy Report (IEPR), to align the CEC's energy plans with California AB32 and similar local policy goals. In April 2018, San Francisco increased its climate action goal from an 80% reduction in citywide greenhouse gas (GHG) emissions from 1990 levels by 2050, to carbon neutrality. San Francisco's GHG emissions have been meeting firm public milestones along the way; in 2016 emissions were 29% lower than in 1990, while the City's population grew 20% and economy expanded 111% over the same period.

In 2016, SFE and Siemens conducted the *Reaching 80x50 – Technology Pathways to a Sustainable Future* study and found that investment in building energy efficiency, transportation electrification, and a renewable utility grid mandated by existing Renewable Portfolio Standard (RPS) laws can compensate for expected growth, including expansion of the workforce and economy, while reducing criteria air pollutants and bringing local emissions down by 63% compared to 1990 levels. However, more than 95% of space and hot water heating in San Francisco are supplied by on-site combustion of natural gas. Even with improved energy efficiency, the pervasive use of fossil fuel to meet thermal loads in the built environment is not compatible with an 80% emissions reduction, let alone carbon neutrality.

Though it was not possible to achieve an 80% emission reduction while continuing to meet remaining thermal loads with natural gas, SFE and Siemens an 80% emission reduction is feasible with efficient, on-the-shelf technology. Widespread deployment of efficient heat pumps for space heating and water heating was estimated to have the potential to reduce citywide emissions 13.6%, the most impactful measure analyzed. The problem: California policies discourage the utilization of this technology.

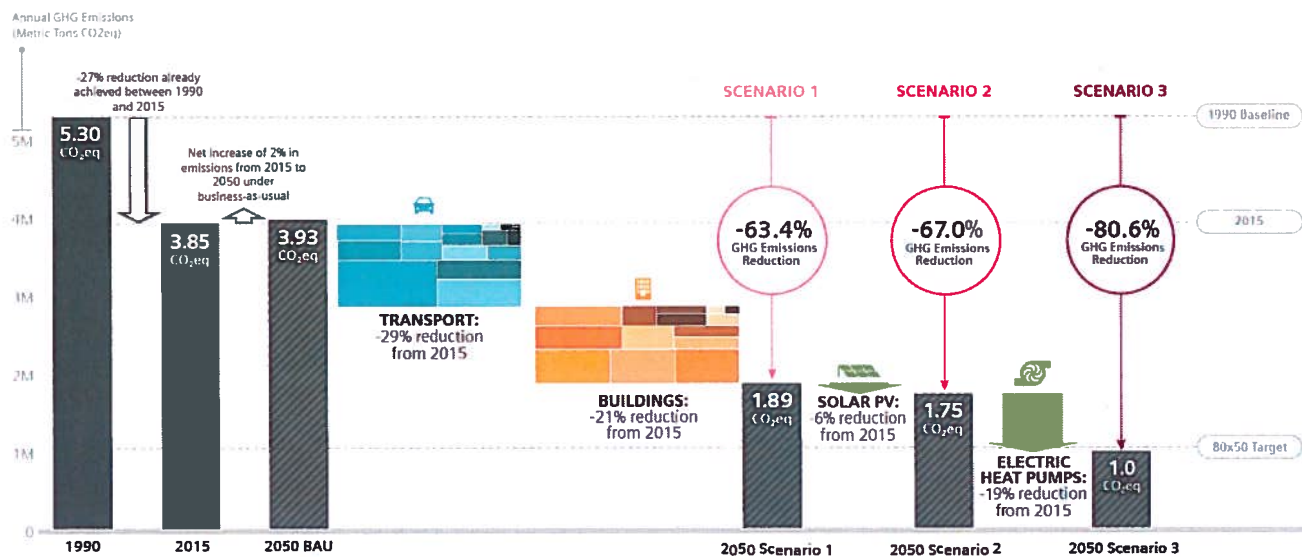


Figure 1: Emissions reduction scenarios for San Francisco, under SB350 RPS compliance.
Source: Siemens and SF Environment (2016) *Technology Pathways to a Sustainable Future*
www.sfenvironment.org/8050.

State and local government has the capacity to support the transition to a renewable, healthy, comfortable, prosperous and equitable future through: education and workforce development; technical assistance and outreach; incentives and financing; and policy including building codes. San Francisco has been investing in each of these activities, and needs the assistance and partnership of the CEC to fully achieve our carbon neutrality goal while improving the health and well-being of our community. At present, government is sending mixed “signals” at best regarding decarbonization of the built environment. A clear CEC commitment to building decarbonization in the IEPR would help:

- **Incentives:** To spur market transformation, investment is key. The City applauds the CEC’s investment in grants supporting zero net energy buildings, and the California Air Resources Board’s investment of cap and trade proceeds in the Low-Income Weatherization Program as two examples of the state allowing incentives/rebates to support decarbonization. However, the largest source of energy incentive funding in California sends the opposite message. The unclear and antiquated wording of the California Public Utilities Commission’s Three Prong Test act as a *de facto* ban incentives/rebates for fuel substitution. As a result, incentives/rebates subsidize like-for-like replacement only, so ratepayer investments are actively discouraging building decarbonization. While we look forward to this issue being addressed by the CPUC, clear support in the IEPR for alignment of energy efficiency and decarbonization goals would be very helpful.
- **Policies and Codes:** The 2016 Title 24 Building Efficiency Standards discourage building decarbonization by making it easier for natural gas space and water heating to demonstrate compliance, particularly in mild coastal climates like San Francisco. The City applauds the CEC’s commitment to provide a level playing field for efficient electric and natural gas appliances for all building scales and uses; considerable progress has been made in the 2019 Title 24 standards, and there’s continued room to improve. A commitment to decarbonization in the IEPR would clarify the message the CEC intends to send.

- Education: The City applauds the CEC's excellent and informative June 14 IEPR workshop as an example of the airing of facts and best practices for building decarbonization. SFE has been educating our local workforce and officials with support from the Northwest Energy Efficiency Alliance, the U.S. Department of Energy, the Carbon Neutral Cities Alliance, and the Bay Area Regional Energy Network, as well as through collaborative initiatives with other Bay Area cities.
- Renewable utility grid: SF Environment appreciates the CEC's ongoing implementation of the RPS requirements; the City benefits from renewable electricity provided through its two utilities (e.g., the San Francisco Public Utilities Commission, and Pacific Gas and Electric Company), and its Community Choice Aggregation program CleanPowerSF. San Francisco also appreciates presentations made by Martha Brook (CEC) and Zack Subin (E3) highlighting that in 2017 the utility grid was far more renewable than in recent years, and that by 2030 will be a reliable, renewable resource to support California's economy and GHG reduction goals.

San Francisco Department of Environment encourages the California Energy Commission to take the proposed step and incorporate decarbonization in the Integrated Energy Policy Report as a step toward reaching our shared goal for a healthy, prosperous, and equitable future powered by renewable energy.

Thank you,



Jessie Denver

Energy Program Manager

San Francisco Department of Environment

