

San Francisco Energy Efficiency Coordinating Committee

Cap-and-trade, CalEnviroScreen & San Francisco Issue Summary

Among the Energy Efficiency Coordinating Committee's responsibilities, according to the enabling legislation, is to advise the Board of Supervisors on the "... spending and allocation of new monies , including revenue received from the State cap-and-trade program...". The Committee did not engage much in this issue. Although San Francisco has received climate investments¹, the City does not rank highly using the methodology adopted by the state of California in identifying communities eligible for a portion of the cap-and-trade funds specifically targeted for disadvantaged communities.

AB 32 & SB 535

California's cap-and-trade program was created with the adoption of AB 32, the Global Warming Solutions Act of 2006, a market-based approach to reduce the state's greenhouse gas (GHG) emissions to 1990 levels by 2020. As stated by the California Air Resources Board, "Under cap-and-trade, an overall limit on GHG emissions from capped sectors will be established by the cap-and-trade program and facilities subject to the cap will be able to trade permits (allowances) to emit GHGs."²

Thus, GHG emitting facilities such as power plants and oil refineries, among other sources, can buy, sell and trade carbon allowances during auctions which are held quarterly. The revenues from the auctions are deposited into the Greenhouse Gas Reduction Fund (GGRF).

In 2012, the Legislature passed, and Governor Jerry Brown signed into law, Senate Bill 535 (de León). Under the provisions of SB 535, at least 25% of the funds that go to the GGRF must go to projects that benefit disadvantaged communities most impacted by climate change, with a minimum of 10% of investment projects located within these communities.

These investments are meant to benefit disadvantaged communities by providing funds for emissions reduction programs such as energy efficiency upgrades, clean freight transportation, and local clean energy sources as well as to improve a community's quality of life through jobs, transit improvements, affordable transit-oriented housing, among other benefits.

The bill also directs California Environmental Protection Agency (CalEPA) to identify these neighborhoods via a public process utilizing a tool that considers the combination of environmental pollution and socioeconomic indicators.

¹ California Climate Investments: 2015 Implemented GGRF Projects by Region, Metropolitan Planning Organization, County, and Legislative District. Retrieved at: www.arb.ca.gov/cc/capandtrade/auctionproceeds/2016_cci_geographic_breakdown.pdf

² California Air Resources Board website. Cap-and-Trade Program. Background Information. Retrieved from <https://www.arb.ca.gov/cc/capandtrade/capandtrade.htm>

CalEnviroScreen

For many years, the environmental justice movement in California, and across the nation, have advocated for the development of scientifically sound tools to identify environmental justice communities, i.e., low-income communities and communities of color disproportionately burdened by multiple sources of pollution and socioeconomic impacts.

In 2014, after years of input from community organizers, advocates and other stakeholders and an extensive peer review process, the California Environmental Protection Agency (CalEPA) and the Office of Environmental Health Hazard Assessment (OEHHA) released the first ever cumulative impact screening tool, the California Communities Environmental Health Screening Tool (CalEnviroScreen or CES).

The ~~CalEnviroScreen~~CES is a tool that identifies the presence of both pollution burdens and population vulnerabilities throughout California’s approximately 8,000 census tracts. The current proposed iteration of the tool uses 20 statewide indicators. See below for the indicators used in ~~CalEnviroScreen~~CES 3.0:

CES 3.0 Proposed Indicators

Pollution Burden		Population Characteristics	
Exposures	Environmental Effects	Sensitive Populations	Socioeconomic Factors
<ul style="list-style-type: none">• Ozone• PM2.5• Diesel Particulate Matter• Drinking Water Contaminants• Toxic Releases from facilities• Traffic Density	<ul style="list-style-type: none">• Cleanup sites• Groundwater threats• Hazardous waste facilities and generators• Impaired waters• Solid waste sites and facilities	<ul style="list-style-type: none">• Asthma ER visits• Cardiovascular Disease• Low Birth Weight Infants	<ul style="list-style-type: none">• Educational attainment• Linguistic Isolation• Poverty• Rent Adjusted Income• Unemployment

The ~~CES~~ uses the indicators to provide a statewide ranking of the census tracts in California, with communities with census tracts with high total scores being designated to have a high cumulative amount of pollution and vulnerable population characteristics.

San Francisco Ranking

As stated previously, SB 535 mandated that a portion of GGRF funds be directed to the state’s “disadvantaged communities.” CalEPA selected the ~~CES~~ as the tool to identify disadvantaged communities (DACs) for certain GGRF investments.

As a result, in the ~~proposed update to the tool~~recently finalized updated version, CES 3.0, there are 711 census tracts in San Francisco that meet the threshold for being in the top 25% of California’s most disadvantaged communities ~~disadvantaged communities~~(DACs).- In the previous iteration of the tool, CES 2.0, there were 3 census tracts in San Francisco that were in

the 25%. Thanks to the advocacy of several agencies, cities, and a coalition of community organizations dedicated to serving San Francisco’s low-income communities, the finalized version 3.0 increased the number of tracts in both San Francisco and the greater Bay Area considered DACs.

Number of census tracts considered DACs by CES:

	<u>CES 2.0</u>	<u>Draft CES 3.0</u>	<u>Finalized CES 3.0</u>
<u>San Francisco</u>	<u>3 DACs</u>	<u>7 DACs</u>	<u>11 DACs</u>
<u>Bay Area</u>	<u>85 DACs</u>	<u>56 DACs</u>	<u>105 DACs</u>

As illustrated in the table above, the formula utilized by the draft version 3.0 would have increased the number of census tracts considered DACs in San Francisco from 3 to 7. However, the Bay Area overall would have seen a decline of 29 tracts. This prompted local and regional agencies as well as city departments to submit comments to CalEPA urging it to revise the draft version 3.0. In particular, San Francisco Public Utilities Commission, San Francisco Department of Public Health, the Mayor’s Office, and the Bay Area Legislative Caucus submitted comments supporting a modification to the CES formula. The coalition of community organizations also supported modifying the formula to make CES more inclusive, and included the following organizations: Brightline Defense, Emerald Cities, Luminalt, A. Philip Randolph Institute, CYC, YCD, ABU, Mission Hiring Hall, and Asian Neighborhood Design. Thanks to the advocacy of these and other stakeholders, the finalized version 3.0 is more inclusive for both San Francisco and the Bay Area.

San Francisco has received climate investments. For example, three affordable housing projects have been funded through the Affordable Housing and Sustainable Communities program, which utilizes funds from the GGRF.

However, given that few census tracts are in the top 25%, this has limited San Francisco from being eligible for certain grants.

Advocates and environmental justice organizers continue to work with the CalEPA and OEHHA to strengthen the tool. Additionally, they have supported legislation, such as AB 1550 (Gomez) the Climate Investments in Disadvantaged Communities and to Low-Income Households, which sets aside funding for low-income households outside a designated disadvantaged community, in order to increase climate investments in overburdened communities.

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Energy Efficiency and Multifamily Affordable Housing Issue Summary

San Francisco has more than 200 multifamily affordable housing (MAH) sites providing over 20,000 units of affordable housing to the City's poor.¹ MAHs in San Francisco continue to be underserved and have significant unrealized benefits with regards to energy efficiency. MAHs in San Francisco face barriers that make it difficult for energy efficiency measures to be adopted:

- There is the challenge of split incentives, where tenants pay utility bills and property owners are the ones responsible for capital improvements to the building.
- There is also a challenge with financing capital improvements for energy efficiency measures because the savings are often difficult to capture to help repay the loans.

Implementing energy efficiency at MAH sites will help both the building owner and residents save money on utility bills, improve comfort and quality of life, and promote resilient housing for low-income families. Mission Housing Development Corporation has actively pursued a variety of different strategies to make these improvements and overcome the aforementioned barriers. Partnering with stakeholders such as the Association for Energy Affordability (AEA) and SF Environment (SFE) Mission Housing Development Corporation has completed several energy efficiency projects in recent years. Here are some examples:

The Juan Pifarre Apartments, 2012



Juan Pifarre Apartments

Under participation of a pilot program implemented by the Mayor's Office of Housing and the Weatherization Assistance Program, Mission Housing Development Corporation was able to access \$964,011 of local and federal assistance to make comprehensive energy efficiency upgrades at the Juan Pifarre Apartments, a Mission Housing Multifamily Apartment building. The Association for Energy Affordability (AEA) was originally hired to complete investment grade energy audits on Mission Housing buildings. Once the audits were completed, AEA worked with Mission Housing Development Corporation's dedicated project manager for the project and the city of San Francisco to develop a detailed scope of work on the buildings. The final scope of work included both in-depth upgrades of large mechanical equipment and controls to high efficiency, but also the installation of showerheads and aerators and upgraded lighting. Additionally, the scope included a focus on upgrading air quality which involved the replacement of bathroom exhaust fans and dryer exhaust systems. Once the scope of work was identified, Mission Housing Project Manager, AEA, and the contractor worked together to ensure that the installed scope of work delivered the expected results. **The projected site energy savings at the building ranged from 10-28%.**

The Esperanza and Colosimo Apartments, 2014 - 2015



Apartamentos de la Esperanza



Colosimo Apartments

MISSION HOUSING commenced the total renovation of the Esperanza and Colosimo Apartments in 2014. Specifically, the Esperanza houses thirty-nine (39) units of senior housing that was originally built in 1976, and Colosimo apartments, constructed in 1982 on a Mission District in-fill site, provide eleven (11) spacious and affordable apartments for very low-income families. Maximizing land parcels that are unattractive to many private developers serves an important function for the mixed residential/commercial neighborhood.

Starting in 2014 MISSION HOUSING worked with Basis Architecture, AEA, and Nibbi Brothers General Contractors to develop and implement a comprehensive rehabilitation of both projects that completed in 2015.

Residents were relocated and their furnishings put in storage as construction crews moved from floor to floor of each building. Units were fully modernized with new appliances, LED lighting, new bathrooms and kitchens, durable and low-emitting flooring, high efficiency dual pane windows and improved mechanical ventilation. Common area upgrades were also installed, including LED lighting, high-efficiency combination heating and domestic hot water boilers and insulation.

As part of the project, MISSION HOUSING also worked closely with San Francisco Department of the Environment (SFE) which implements the SF BayREN Multifamily Building Enhancement Program. Ray Manion, SFE project manager, was able to secure a \$37,500 rebate for the two projects which helped maintain aggressive energy savings goals by using high quality, higher efficiency equipment.

Finally, in addition to the efficiency, durability, and indoor air quality benefits, Mission Housing wanted to go above and beyond code and funding requirements at the project, and wanted to hold the project to achieving a high standard. To this end they worked with AEA to third party verify and certify the projects under the GreenPoint Rated certification program. Third party verification of all construction materials and practices is required to accomplish a GreenPoint Rating. Esperanza Apartments achieved a 100-point rating and Colosimo Apartments achieved a 93-point rating which equate to a Silver category Green Point Rated project.



Betel Apartments 2015 - 2016

The Betel Apartments houses fifty (50) residential units of affordable multifamily housing that was originally built in 1976. Starting in 2015 MISSION HOUSING worked with Hamilton + Aitken Architects, AEA, and Nibbi Brothers General Contractors to develop and implement a comprehensive rehabilitation of both projects that completed in 2016.

Residents were relocated and their furnishings put in storage as construction crews moved from floor to floor of each building. Units were fully modernized with new appliances, LED lighting, new bathrooms and kitchens, modern heating systems, durable and low-emitting flooring, water saving plumbing fixtures, and improved mechanical ventilation. Common area upgrades were also installed, including LED lighting, high-efficiency combination heating and domestic hot water boilers and a new solar hot water system.

Similar to the Esperanza and Colosimo Apartments, MISSION HOUSING worked closely with Ray, SFE project manager, to secure a \$37,500 rebate for the projects. Again, the rebate helped with the purchase of higher quality, higher efficiency equipment to achieve aggressive energy saving goals.

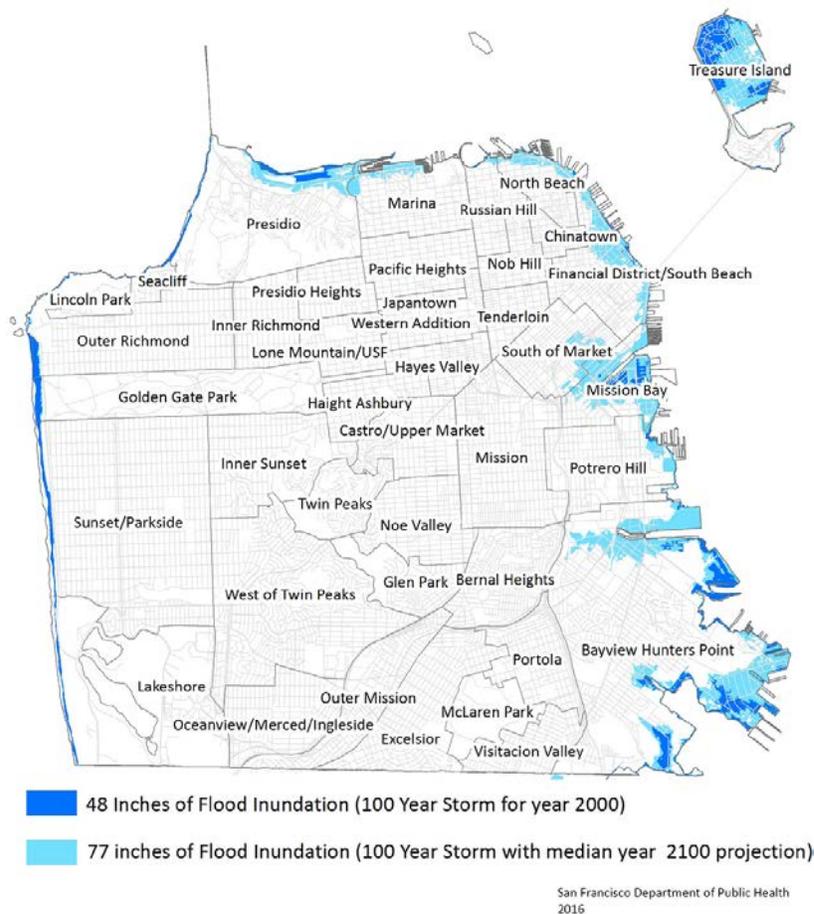
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Bayview Hunters Point Neighborhood Issue Summary

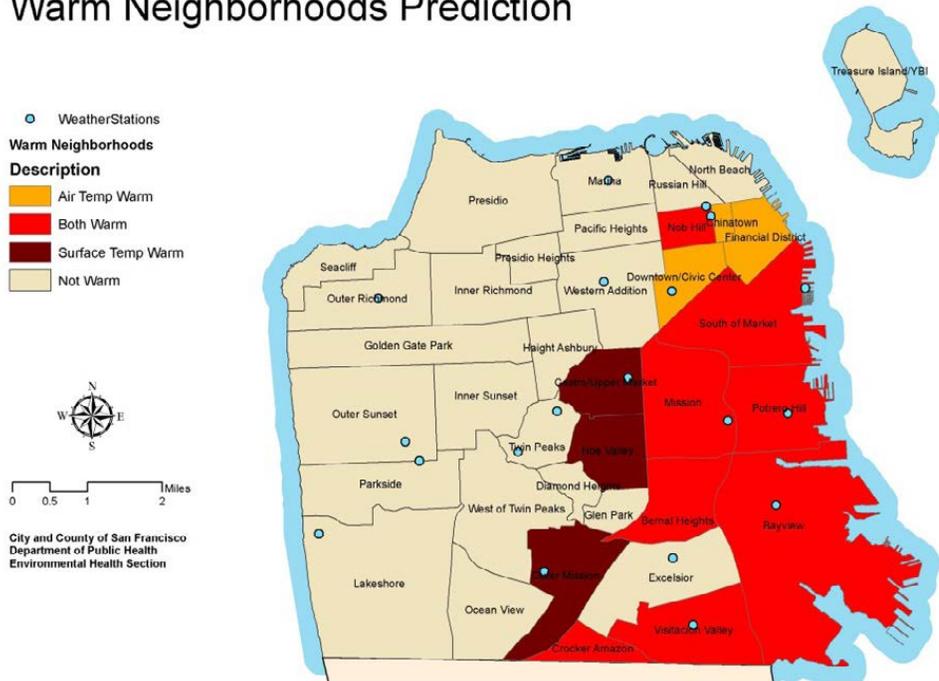
One of the major goals of making San Francisco more energy efficient is to reduce and mitigate the impacts of climate change. As we have seen in San Francisco and throughout the world – the effects of climate change disproportionately impact vulnerable and low income communities. Around the world severe droughts have pushed families into poverty resulting in more food insecurity due to the rising costs of nutritious food. We see an increase in extreme storms with higher risks of flooding, and warming neighborhoods due to extreme heat waves. In San Francisco, the Bayview Hunters Point neighborhood has experienced both a history of environmental degradation and is particularly vulnerable to flooding and heat waves due to climate change.

The Bayview Hunters Point neighborhood historically has been burdened with multiple sources of pollution, including industrial facilities, freeways, and two power plants including the former PG&E Hunters Point Power Plant that was only recently decommissioned and was torn down. When the Hunters Point Power Plant operated, it produced over 1,600 tons of pollutant emissions per year. [<http://www.cpuc.ca.gov/Environment/info/esa/divest-pge-two/eirtc/tables/4-3-1.pdf>].



SF Dept of Public Health, Climate and Health, Understanding the Risk: An Assessment of San Francisco's Vulnerability to Flooding and Extreme Storms (<http://www.sfpbes.org/elements/climate>).

Warm Neighborhoods Prediction



SF Dept of Public Health, Climate and Health, Understanding the Risk: An Assessment of San Francisco's Vulnerability to Extreme Heat Events (<http://www.sfphes.org/elements/climate>)

Thus, the City and County of San Francisco needs to provide continued focused support to help low-income residents and businesses in vulnerable communities, such as the Bayview Hunters Point community, to adapt and mitigate the burdens that are related to Climate Change.

Although federal, state and local programs are targeting funding for energy efficiency in low-income homes, multiple barriers exist that prevent the majority of residents and businesses in Bayview Hunters Point from participating in energy efficiency programs. Here are recommendations to increase participation: