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Submitted On: 9/20/2023  
Docket Number: 19-AB-2127*

**SFMTA's comments on Implementation of AB2127 Electric Vehicle Charging Infrastructure Assessment**

*Additional submitted attachment is included below.*



London Breed, Mayor

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September 20, 2023

California Energy Commission  
Fuels and Transportation Division

## **RE: Docket: 19-AB-2127, Implementation of AB2127 Electric Vehicle Charging Infrastructure Assessments**

The San Francisco Municipal Transportation Agency (SFMTA) wishes to thank the California Energy Commission for the opportunity to provide comments on their bi-annual AB 2127 report on the Implementation of AB 2127.

The SFMTA designs, builds, operates, regulates and maintains one of the most comprehensive transportation networks in the world. The SFMTA manages on-and off-street public parking, facilitates bicycling and walking, regulates taxis, and manages paratransit services. The SFMTA operates five types of public transit in San Francisco (motor coach, trolley coach, light rail, historic streetcar, and cable car), and is the nation's eighth largest public transit system and the greenest in North America. Together, our fleet of motorcoaches, light rail vehicles and trolleys carry over 444,000 daily riders, the largest daily ridership of any transit agency in the San Francisco Bay Area.

My comments generally reflect the SFMTA's mission to provide the highest level of transit service possible in a manner that is clean, efficient and sustainable. It also reflects SFMTA's requirement to meet CARB's Innovative Clean Transit (ICT) regulations to convert our fleet of motorcoaches to zero-emission. According to the ICT, by 2026, 50% of bus purchases must be zero-emission and by 2029, 100% of bus purchases must be zero-emission. By 2040, the entire motorcoach fleet for all large transit agencies in the state must be zero-emission.

The SFMTA has 585 hybrid and diesel motorcoaches (bus) plus 12 battery-electric buses that we are testing on various routes. The total cost to replace these buses with zero-emission buses, including the charging infrastructure, power upgrades and facility upgrades, is over \$2 billion.

Here are my comments, by page number.

p. 21 The report discusses the Advanced Clean Cars and the Advanced Clean Fleets regulations, but does not mention the Innovative Clean Transit regulation. This should be added.



p. 24 Table 1 provides definitions for charging terms. Where would chargers that are publicly-owned, but not available to the public fit? The SFMTA's fleet of 585 buses are located in secured depots that are not open to the public. The SFMTA, and most other public transit agencies, must secure our facilities for the safety of our workforce and the security of our fleets and for operational reasons. It would be unsafe for a fleet to open their fleet depot to the public due to the danger of vehicle collisions. Additionally, security issues arise from unauthorized individuals being able to access fleet vehicles, if fleet depots are made accessible to the public. Finally, fleets must be able to charge their vehicles at times that meet their operational needs, so if fleet chargers are open to the public, the fleet may not have access to its chargers when needed.

p. 28 The SFMTA would welcome the CEC's interest in learning more about our vehicle charging needs and plans for transitioning to an all electric fleet. Please see the [SFMTA's Zero-Emission Bus Rollout Plan](#), submitted to CARB in compliance with ICT in early 2021.

p.55 I would suggest that the CEC's load modelling go all the way out to 2040 as that is CARB's deadline for all large transit agencies to have 100% zero-emission fleets.

p. 56 I would suggest that modelling public transit energy use be separate from modelling other medium or heavy-duty vehicles. This is public transit vehicle travel patterns are very different. For instance, they rarely get over 40mph, break often at bus stops which could be only 2 blocks apart, and usually travel between 30,000 and 40,000 miles per year. Buses do not take the shortest path between two points. They sometimes take long circuitous paths in order to meet the transportation needs of its riders. One route, the 29 Sunset, is 13 miles long even though the city is only 7 miles long. A separate model for public transit would help the CEC better understand public transit challenges and needs related to upgrading the power grid so that the agencies can more easily transition to all electric vehicles. This is a major road block, in addition to the cost. One way to better understand the power needs of transit agencies across the state is to aggregate the findings in all the Zero Emission Rollout Plans submitted to CARB in 2021 or earlier.

P. 59 Does the HEVI-LOAD model results include the chargers needed by public transit agencies? Bus chargers at the depot must be 200kW. While tractor trailers and other trucks would use publicly accessible chargers en-route, transit buses will never be using publicly accessible chargers. If charging is required en-route, they would not be accessible to the public. Though transit service is provided 7 days a week, 24 hours a day (on some routes), most vehicles will be charged overnight out of necessity since most service is provided during the day. As a public service, the SFMTA would not want to see rate increases that would increase the cost of charging overnight.



p. 66 Figure 30 illustrates the lack of capacity by TAZ and shows that the Bay Area in particular is under capacity. This has been our experience. We are finding it exceedingly difficult to upgrade the power supply in a timely manner so that we can meet the CARB's ICT mandate to be zero emission by 2040. This would affect transit agencies throughout the region.

In summary, while the report is comprehensive and the findings well-documented, it is lacking in the analysis of the charging infrastructure needs of public transit. Public transit agencies serve the neediest of our population, those who are transit dependent or are low-income and cannot afford their own vehicle. If the CEC is concerned with sustainability and equity, it would do well to focus on supporting the needs of public transit agencies. Public transit supports the state's housing and land use policy objectives to concentrate development along transit routes and at transit nodes. This not only allows for greater trips to be taken by walking and bicycling (reducing energy use), it also preserves agricultural lands, a major economic engine for California.

Sincerely,

Kathie Studwell, Sr. Transportation Planner  
Funding Strategy & Programs