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September 9, 2022

Honorable Mitch O'Farrell
Chair, Energy, Climate Change, Environmental Justice and River Committee
City of Los Angeles
c/o City Clerk
Room 395, City Hall

Attention: Eric Villanueva, Legislative Assistant

GSD RESPONSE TO COUNCIL FILE NO. 21-0890, ELECTRIC VEHICLE MASTER PLAN / CITYWIDE INFRASTRUCTURE / EQUITABLE PLACEMENT / RESIDENTIAL, COMMERCIAL AND INDUSTRIAL CUSTOMER INCENTIVES / FEDERAL AND STATE FUNDING

This report provides a status update on amending the General Services Department Electric Vehicle Plan (GSD EV Plan), as directed by your Committee.

Background

In 2017, GSD created an Electric Vehicle (EV) Charging Infrastructure Plan (Council File No. 14-0079-S2) to implement a network of EV charging stations for City residents, visitors and employees. In March 2022, your Committee directed GSD to amend its plan to include electrification of the fleet and expand its EV charger program (Council File No. 21-0890). Funding from the Unappropriated Balance was identified for consultant costs required to amend the GSD EV Plan, and positions were authorized to help implement GSD's work in this area.

Status of GSD EV Plan

With authority to hire received in August 2022, GSD will soon begin the process of filling one Senior Management Analyst and two Equipment Specialist positions. Based on direction received from Council, along with other areas of need identified by GSD, a Scope of Work was completed and the department anticipates beginning work with the consultant in October.

The objectives of the plan include:

- Develop a long-term plan for electrification and charging infrastructure for City fleet, prioritizing the four largest fleets maintained by GSD as follows: Bureau of Street Services, Department of Recreation and Parks, Department of Transportation, and Bureau of Sanitation.
- Conduct a cost analysis for operating EVs vs. gas-powered vehicles/hybrid and other alternative fuel vehicles



- Develop criteria and metrics for future public and employee EV charger installations, including number of chargers, type, and mix (Level Two vs fast chargers)
- Identify best practices to maximize shared use of EV chargers, market review and outlook for emerging technologies, and new deployment methods such as ones where the City does not own the charging equipment.
- Develop grant proposals for fleet, public, and employee EV chargers, as well as, grant proposals for electric vehicle purchases.

Fleet Electrification

GSD's Fleet Services Division maintains approximately 6,000 on-road vehicles for non-proprietary Departments, including Department of Recreation & Parks, Bureau of Street Services, Department of Transportation and Bureau of Sanitation. GSD is committed to replacing City vehicles with zero-emission vehicles when they are available and meet the City's needs.

GSD implemented a procedure to evaluate the feasibility of replacing sedans, light, medium and heavy-duty trucks with a zero-emission option.

- This evaluation process identifies zero-emission vehicles produced by vendors who have a full production product, have a local service center, and are able to provide after sale support such as timely warranty issues, repairs, and supply parts.
- These zero emission vehicles must meet the end-user's required operational needs. As more vehicles are replaced with full electric vehicles, infrastructure will be needed to power these vehicles.

Meeting with Departments to Formulate Fleet Electrification and EV Infrastructure

GSD has conducted meetings with the four departments with the largest fleets that GSD maintains to discuss Fleet Electrification and EV Charging Infrastructure. In the past 20 years, GSD has worked with all departments (especially the departments with the four largest fleets) to reduce emissions by purchasing and maintaining alternative fuel vehicles. Here is breakdown of the vehicle list of all departments (GSD services):

EQUIPMENT TYPE	ELECTRIC	COMP. NATURAL GAS (CNG)	HYBRID GASOLINE ELECTRIC	PLUG-IN HYBRID	LIQUEFIED NATURAL GAS (LNG)	GASOLINE	DIESEL	TOTAL INVENTORY	TOTAL ALT FUEL	% FLEET ALT FUEL
AUTOMOBILE (SEDANS ONLY)	126		958	46		23		1153	1130	98%
STATION WAGON						54		54	0	0%
LIGHT TRUCK	1		2			2030		2033	3	0%
MEDIUM TRUCK		39				965	41	1044	39	4%
HEAVY TRUCK		229			26	350	206	811	255	31%
REFUSE COLLECTION VEHICLE		437			227	27	115	806	664	82%
STREET SWEEPERS		164						164	164	100%
TOTAL	127	869	960	46	253	3449	362	6066	2255	37%

EQUIPMENT TYPE	INVENTORY	ALT FUEL	% FLEET ALT FUEL
AUTOMOBILE (SEDANS ONLY)	1153	1130	98%
REFUSE COLLECTION VEHICLE	806	664	82%
STREET SWEEPERS	164	164	100%
TOTAL	2125	1958	92.1%

To date, GSD has installed a total of 125 Level-2 EV chargers throughout the City of Los Angeles for various departments including Bureau of Street Services, Department of Recreation & Parks and Department of Transportation. GSD has an additional 35 EV chargers, which include 11 DCFC Fast chargers, in progress. Please see below for breakdown of EV chargers:

DEPARTMENT	# OF LOCATIONS	# OF LEVEL 2 CHARGERS	# OF FAST CHARGERS	# TOTAL CHARGERS	STATUS
CITY HALL EAST	1	55	0	55	COMPLETED
DOT	5	27	0	27	COMPLETED
FLEET LOCATIONS	4	12	0	12	COMPLETED
RECREATION AND PARKS	2	6	0	6	COMPLETED
BUREAU OF STREET SERVICES	3	10	0	10	COMPLETED
MAIN CITY HALL	1	15	0	15	COMPLETED
COMPLETED		125	0	125	
CITY HALL EAST	1	10	0	10	IN-PROGRESS
DOT - CENTRAL PE	1	4	1	5	IN-PROGRESS
BUREAU OF STREET SERVICES	1	2	0	2	IN-PROGRESS
SOUTH LA EMERGENCY FUEL SITE	1	0	2	2	IN-PROGRESS
WEST VALLEY EMERGENCY FUEL SITE	1	0	2	2	IN-PROGRESS
EAST VALLEY EMERGENCY FUEL SITES	1	0	2	2	IN-PROGRESS
BUREAU OF SANITATION	1	0	2	2	IN-PROGRESS
GSD - Motor Pool (Piper Tech)	1	8	2	10	IN-PROGRESS
IN PROGRESS		24	11	35	
TOTAL		149	11	160	

Challenges of Fleet Electrification and EV Charging Infrastructure

GSD identified the following challenges to purchasing zero-emission vehicles:

- **Operational Needs** - Zero-emission equipment on the market do not meet the operational needs of the end user such as load capacity and range for medium and heavy-duty vehicles. Additionally, availability is limited and the required delivery lead time is slow for zero-emission vehicles.
- **Funding** – There is a lack of funding to replace equipment. In FY2022-23, GSD requested \$50 million to replace equipment but only received \$8 million. Currently, the equipment is about 53% past its useful life.
- **Higher Price Point** - A fully electric Chevy Bolt costs over 35 percent more than a hybrid Toyota Prius. A fully electric Street Sweeper is double the cost of a Compressed Natural Gas powered.
- **Infrastructure** – Many City facilities lack power to install EV chargers to support EV replacements. The power grids at these City facilities will need to be updated. On top of these delays, the length of time for design and engineering work for installing chargers is a concern.

Public and Employee EV Charging Infrastructure

GSD's Office of Sustainability is responsible for installing public and employee EV chargers at GSD-maintained facilities. To date, GSD has installed 223 EV chargers at five facilities listed below. Another 14 facilities are in late stages of design, with some sites anticipated to begin construction this year. These facilities will add approximately 130 EV chargers for public and employee use, bringing the total to 353 EV chargers.

With over 600 facilities maintained by GSD, future potential sites will be identified continuously. Prioritization will be based on criteria such as electrical capacity and readiness of the building, user demand, location, and available funding.

Site	Public/Employee EV Chargers Installed			Status
	Level 2 Charger	Fast Charger	Total	
CITY HALL	12		12	COMPLETED
CITY HALL EAST	79		79	COMPLETED
WEST VALLEY MUNICIPAL BUILDING	4		4	COMPLETED
BRAUDE BUILDING	20		20	COMPLETED
FIGUEROA PLAZA	105	3	108	COMPLETED
COMPLETED	220	3	223	
PIPER TECHNICAL CENTER	39	2	41	IN-PROGRESS
PACOIMA CITY HALL	4	1	5	IN-PROGRESS
WESTCHESTER MUNICIPAL BUILDING	12		12	IN-PROGRESS
EAGLE ROCK CITY HALL	2	1	3	IN-PROGRESS
SAN PEDRO CITY HALL	8		8	IN-PROGRESS
PERSONNEL BUILDING	12		12	IN-PROGRESS
MEDICAL SERVICES BUILDING	8	1	9	IN-PROGRESS
EMERGENCY OPERATIONS CENTER	10	2	12	IN-PROGRESS
EAST VALLEY ANIMAL SHELTER	4		4	IN-PROGRESS
WEST VALLEY ANIMAL SHELTER	4		4	IN-PROGRESS
WEST LA ANIMAL SHELTER	4		4	IN-PROGRESS
HARBOR ANIMAL SHELTER	4		4	IN-PROGRESS
SOUTH LA ANIMAL SHELTER	6		6	IN-PROGRESS
NORTH CENTRAL ANIMAL SHELTER	6		6	IN-PROGRESS
IN PROGRESS	123	7	130	
TOTAL	343	10	353	

Coordination With Other Programs

GSD continuously collaborates with partner-departments to ensure there is no duplication of effort and information gathered in other plans are maximized. GSD has begun coordinating with the Bureau of Engineering under the Building Decarbonization Workplan (Council file No. 21-1039) to plan EV charger installations whenever feasible at buildings identified for solar and related projects.


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GSD is also working with the Department of Water and Power (DWP) to help inform the LA100/Strategic Long Term Resource Plan (Council file No. 21-0352) and Citywide EV Masterplan (Council file No. 21-0890). Shared information will assist DWP in projecting future demand on the power grid from GSD's planned installations. Coordination will also assist GSD with strategic selection of locations based on where there is already sufficient power to support EV charger installations.

Should you have any questions, please contact Assistant General Manager John Trevgoda at (213) 928-9575.



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