



City of Culver City

Staff Report

File #: 22-236, Version: 1

Item #: P-5.

(1) Presentation of Transportation Fleet Electrification Master Plan Update; and (2) Provide Direction to Staff.

Meeting Date: August 24, 2021

Contact: Mike Tobin, Deputy Transportation Officer /Transportation
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Fiscal Impact: Yes [] No [X] **General Fund:** Yes [] No [X]

Action Item: Yes [] No [X] **Attachments:** Yes [] No [X]

Public Notification: (E-Mail) GovDelivery: Meetings and Agendas - Mobility, Traffic & Parking Subcommittee; Notify Me - Construction, Street Maintenance and Closures; Stay Informed - Bicycle & Pedestrian / Culver CityBus / Construction, Street Maintenance and Closures (08/21/2021)

Department Approval: Michael Tobin, Deputy Transportation Officer (08/18/2021)

BACKGROUND/DISCUSSION

With guidance and direction from the City Council, the Culver City Transportation Department will transition Culver City's entire bus fleet to a 100% zero emission fleet by 2028, well in advance of California Air Resources Board's (CARB's) Innovative Clean Transit (ICT) 2040 goal and zero emission bus (ZEB) purchasing mandates. To meet this goal, Culver City has established a multi-phased project to develop a ZEB transition plan, design and build charging infrastructure, and replace their current CNG fleet with battery electric buses (BEB) starting in 2021 and achieving a 100% zero emission fleet by 2028.

Moving forward, the City will replace its fleet of transit buses with zero emission vehicles on a one-for-one basis as they reach the end of their useful life. Culver City has moved forward in leveraging California's statewide DGS contract and executed a purchase order with New Flyer of America for the purchase of ten (10) battery electric buses and associated charging infrastructure.

The first four buses are scheduled to be delivered in August / September 2021, with an in-service target date within 30 days. A temporary ABB plug-in pedestal charger has also been procured and will be installed and commissioned no later than August 1st of 2021.

Staff received authorization from Council on September 14th, 2020 to enter into a Professional

Services Agreement with CTE; the Center for Transportation and Environment. The agreement is for Architectural and Engineering Services and the development of a long-term plan for the Transportation Department's BEB and Facility Electrification initiative. CTE is a nationally recognized non-profit organization that develops, promotes, and implements advanced transportation technologies, vehicles, and fuels that reduce environmental pollution and fossil fuel dependency. CTE's project portfolio includes 61 projects with 41 transit properties throughout the country.

This project with CTE will satisfy the CARB ICT requirements (Cal. Code Regs. Tit. 13 § 2023.1(d)) requiring each transit agency to submit a complete Zero-Emission Bus Rollout Plan (Rollout Plan), approved by its governing body, showing how it plans to achieve a full transition to zero-emission buses (ZEBs).

Culver City Transportation staff have been working diligently with CTE and its subconsultants on conducting the various analyses that will comprise the final Electrification Master Plan. However, this update will specifically focus on the following analyses:

- **Fuel Assessment** - This work product includes the use of BEB performance data from the bus modeling and route simulations to analyze and forecast the expected performance on each block in Culver City's service network to calculate daily energy requirements. This analysis shows different scenarios with varying levels of fuel consumption to estimate projected fuel costs over the life of the study.
- **Maintenance Assessment** - This work product involves an analysis of BEB labor and maintenance costs and the cost impact of mid-life overhauls of major components.
- **Facilities Assessment** - Using the bus and fueling requirements as inputs, this task includes a comprehensive review of the multiple infrastructure scenarios to accommodate the transition to 100% electric fleet. Scenarios are analyzed based on feasibility, cost, and operational impact. This section includes the final facility recommendation and the construction phasing and sequencing plan and details on utility upgrades necessary to meet increased energy demand.
- **Total Cost of Ownership** - The Total Cost of Ownership Assessment compiles and organizes the results from the Fleet, Fuel, Facilities and Maintenance assessments to show total and annual costs throughout the transition. It includes selected capital and operating costs of each transition scenario over the transition timeline

Each of these analyses are inputs to the Department's final Master Electrification Plan, which is the primary output of this project. This plan will serve as a living document that guides the agency's decision making in regard to every facet of electrification including but not limited to procurement, training, performance evaluation, data collection, facilities and infrastructure. Staff are expected to bring the final version of this plan to City Council for approval in September 2021.

FISCAL ANALYSIS

No fiscal impacts exist in association with the discussion of this item.

ATTACHMENTS

None

RECOMMENDED MOTION

That the Mobility, Traffic and Parking Subcommittee:

1. Receive a presentation on the Transportation Fleet Electrification Master Plan update; and
2. Provide direction to staff as deemed appropriate.