



CITY OF GLENDALE, CALIFORNIA REPORT TO THE CITY COUNCIL

AGENDA ITEM

Report: City of Glendale Zero-Emission Bus Rollout Plan

1. Resolution approving the Glendale Zero-Emission Bus Rollout Plan that provides the roadmap to transition the Glendale Beeline fleet to a zero-emission battery-electric bus fleet

COUNCIL ACTION

Item Type: Action Item

Approved for May 23, 2023 **calendar**

EXECUTIVE SUMMARY

The Innovative Clean Transit (ICT) rule adopted by the California Air Resources Board (CARB) in 2018 requires all transit agencies in the state to transition to a zero-emission bus fleet by 2040. The ICT rule requires each transit agency to submit a rollout plan approved by their governing board by June 30, 2023, describing their transition plans and identifying challenges to deploying a zero-emission fleet.

The rollout plan is a living document guiding Glendale's transition process to a zero-emission fleet. Based on the results of the Arroyo Verdugo Electrification Feasibility Study, Glendale intends to adopt battery-electric bus technology to meet the ICT rule.

COUNCIL PRIORITIES

Environmental Stewardship: The conversion of the Glendale Beeline fleet to battery-electric buses will result in significant reductions in greenhouse gas emissions.

RECOMMENDATION

That the City Council approve the Resolution to adopt the Glendale Zero-Emission Bus Rollout Plan that provides the roadmap to transition the Glendale Beeline fleet to a zero-emission battery-electric bus fleet.

BACKGROUND

CARB adopted the ICT rule in December 2018, requiring all public transit operators in California to transition to 100 percent zero-emission bus (ZEB) fleets by 2040. For Glendale, the required transition milestones include the following:

- July 1, 2023: deadline to submit a ZEB Rollout Plan to CARB
- 2026: 25% of new bus purchases must be ZEB
- 2029: All buses purchased must be ZEB
- 2040: All buses must be ZEB

CARB considers the Rollout Plan to be a living document meaning it is susceptible to continuous updates. The goal of the rollout plan is to help transit agencies identify potential challenges, explore solutions, and determine the best method to move forward given their unique situations. CARB recommends transit agencies update their rollout plans as the transition to zero-emission technologies changes. The Rollout Plan (Exhibit A) identifies the proposed roadmap to transition the Glendale Beeline fleet to ZEB by 2035, five years before the 2040 deadline.

ANALYSIS

The Rollout Plan is based on the findings of the Arroyo Verdugo Transit Operators Electrification Feasibility Study, a joint study alongside the cities of Pasadena and Burbank, to explore the feasibility of adopting zero-emissions technologies. The feasibility study was funded by the Caltrans Sustainable Transportation Planning Grant and conducted by CALSTART between 2019 through 2022. For each participating city, the study assessed the existing transit services and infrastructure in place, evaluated battery-electric and hydrogen fuel cell technologies and charging alternatives, developed plans for zero-emission vehicle and infrastructure acquisition, identified power costs and power supply infrastructure upgrade needs, and performed a risk assessment and cost analysis of transitioning and deploying a zero-emission fleet.

The feasibility study evaluated battery-electric and hydrogen fuel cell bus technologies, finding both technologies to be suitable to meet the operating needs of Glendale Beeline. The study recommended the adoption of battery-electric buses over hydrogen fuel cell

buses due to the operational and maintenance costs, power consumption, and physical footprint of the utility improvements and charging infrastructure of battery-electric buses on-site at the space-constrained Transit Maintenance Facility being more cost and space efficient than adopting hydrogen fuel cell technologies.

The cost to transition to a battery-electric bus fleet is estimated at a net present value of \$47,824,017 between 2021 and 2040, while the cost to transition to a hydrogen fuel cell bus fleet is estimated at \$63,160,164. This cost estimate includes procuring buses and charging equipment, building a parking deck to accommodate the charging infrastructure, on-site utility upgrades, charging infrastructure installation, vehicle and charging equipment maintenance, and ongoing utility costs to charge the buses.

STAKEHOLDERS/OUTREACH

CALSTART completed the Arroyo Verdugo Transit Operators Electrification Feasibility Study with plans for an extensive outreach effort, but due to the COVID-19 pandemic, the public outreach was scaled back. CALSTART presented the findings of the transit electrification study to City Council on December 7, 2021.

FISCAL IMPACT

There is no fiscal impact associated with adopting the rollout plan.

Staff is actively seeking funding to deploy a battery-electric bus fleet. Staff has secured \$40.4 million through various grants for battery-electric buses, parking deck construction, and charging infrastructure.

ENVIRONMENTAL REVIEW (CEQA/NEPA)

The adoption of the bus rollout plan is exempt from CEQA/NEPA.

CAMPAIGN DISCLOSURE

This item is exempt from campaign disclosure requirements.

ALTERNATIVES

Alternative 1: Approve the Resolution approving the Bus Rollout Plan.

Alternative 2: Not approve the Resolution approving the Bus Rollout Plan. This will result in non-compliance with the ICT rule.

Alternative 3: City Council may consider any other alternative not proposed by staff.

ADMINISTRATIVE ACTION

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Approved by:

Roubik R. Golanian, P.E., City Manager

EXHIBITS/ATTACHMENTS

Exhibit 1: Glendale Zero-Emission Bus Rollout Plan