## Livermore Amador Valley Transit Authority

# STAFF REPORT

SUBJECT: Zero-Emission Bus Study Update

FROM: Toan Tran, Director of Operations and Innovation

DATE: December 29, 2021

#### **Action Requested**

None – information only.

## **Background**

Under the California Air Resources Board's (CARB) Innovative Clean Transit Rule, LAVTA's new bus purchases are required to be a minimum of 25% ZEBs beginning in 2026 and ramping up to 100% in 2029, with the goal of transitioning the state's entire transit fleet to 100% ZEBs by 2040.

LAVTA has been working with the Center for Transportation and the Environment (CTE) to perform a ZEB study. The goal of the study is to develop a board-approved transition plan outlining the capital projects required to fully electrify the fleet in accordance with the CARB Innovative Clean Transit Rule and LAVTA's local priorities by July 1, 2023.

### **Discussion**

The study analyzed several different zero-emission fleet scenarios and the resources and costs required, and compared them to a baseline. The scenarios were:

- Battery electric fleet only;
- Battery electric and fuel cell electric mixed fleet;
- Fuel cell electric only fleet,

In each scenario, CTE assessed the assumptions and requirements for LAVTA's routes, service and operations, fleet replacement plan timeline, fuel and charging, facilities and infrastructure, maintenance, associated capital costs, and total cost of ownership.

At the September 2021 Board of Directors meeting, staff and CTE provided in-depth presentation on the findings of the study and highlighted the advantages and disadvantages of each scenario. A copy of the ZEB Master Transit Plan was also provided to the board for review.

In this meeting, staff and CTE will dive deeper into the study, discuss changes to some of the key assumptions since the September meeting, and outline the potential roadmap for a ZEB transition.

## Recommendation

None – information only.