



Board Report

File #: 2024-0975, File Type: Oral Report / Presentation

Agenda Number: 34.

**OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE
JANUARY 16, 2025**

SUBJECT: ZERO EMISSION BUS (ZEB) PROGRAM UPDATE

ACTION: RECEIVE ORAL REPORT

RECOMMENDATION

RECEIVE oral report on the ZEB Program.

ISSUE

In April 2024, the Board approved Motion 31.1 by Directors Yaroslavsky, Bass, Krekorian, Dupont-Walker, and Solis (Attachment A), which directed staff to provide quarterly program updates beginning in January 2025 to the Operations, Safety, and Customer Experience Committee on progress toward accomplishing the ZEB transition plan, including the status of grant applications. This update provides the status of systemwide ZEBs and charging infrastructure projects, outstanding grant applications, and upcoming project activities.

EQUITY PLATFORM

Operations collaborate with the Office of Equity and Race to identify and mitigate concerns to ensure equitable outcomes relative to Metro's ZEB transition.

ATTACHMENTS

Attachment A - Board Motion 31.1 Related to Item 31: Zero Emission Bus Program Update

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**Board Report**

File #: 2024-0275, **File Type:** Motion / Motion Response**Agenda Number:** 31.1

REVISED
REGULAR BOARD MEETING
APRIL 25, 2024

Motion by:**DIRECTORS YAROSLAVSKY, BASS, KREKORIAN, DUPONT-WALKER, SOLIS**

Related to Item 31: Zero-Emission Bus Program Update

As transportation planner, designer, builder, and operator for the country's most populous county, Metro has an important role in the fight against climate change and in meeting global, state and local greenhouse gas reduction targets. A major part of Metro's role in fighting climate change is its Zero Emission Bus program.

The California Air Resources Board (CARB) proposed the Innovative Clean Transit (ICT) regulation in 2018 that required all transit agencies in the state to transition to all Zero Emission fleets by 2040.

In response, LA Metro has created a comprehensive Zero Emission Bus Program Master Plan which outlines the path to a complete transition to zero emission buses by 2030. The Board took action to endorse this aggressive goal, recognizing the need to act urgently against the climate crisis, improve air quality locally, and leverage Metro to advance the Zero Emissions Bus industry nationwide.

The Master Plan, updated in May 2023, builds off of the Metro CARB Innovative Clean Transit rollout plan, which evaluates service schedules, power needs, proposed technological advancements, bus production, and market conditions to determine the best path to a full fleet transition of Metro's fixed-route fleet by 2030.

According to Metro, and despite the significant progress made to date, staff is of the opinion that the Zero Emission Bus industry is evolving slower than previously anticipated and not mature enough to promote full fleet transition by the 2030 goal, particularly due to Zero Emission Bus costs, performance, and utility infrastructure.

Program challenges identified by Metro include costs, performance, grid capacity, supply chain and utilities' lead times, and market availability. As a result, according to Metro, shifting the program implementation from 2030 to no later than 2035 will help mitigate these challenges by allowing grid capacity to develop and technology to mature. There are also concerns about how attaining the 2030 goal would affect the overall Operations budget.

At the same time, the urgency of both the air quality and climate crises continue, which both disproportionately impact the health and well-being of Equity Focused Communities here locally and beyond. Additionally, Metro has substantial control to move more quickly to ensure that charging infrastructure is installed, regardless of the timing of delivery of new battery-electric buses. Changing a target of this significance cannot be undertaken lightly and must be thoroughly examined so a thoughtful public discourse can occur and solutions that can address the obstacles come forward. For these reasons, accepting a 2035 goal is premature at this time.

Metro has the responsibility to lead the region in mobile source GHG reduction - not only in its own fleet but by incentivizing Angelenos to get out of their cars and onto transit. Every dollar invested here will have a triple net benefit. Therefore, Metro should do everything in its power to strive for a 100% ZEB fleet by 2030. Each year that passes delays us in delivering the benefits of a fully zero emission fleet.

SUBJECT: ZERO EMISSION BUSES MOTION

RECOMMENDATION

APPROVE Motion by Yaroslavsky, Bass, Krekorian, Dupont-Walker, and Solis that the Board direct the Chief Executive Officer to:

- A. Report back to the September Operations Committee on a more detailed and updated plan to deliver a 100% Zero Emissions bus fleet as soon as is possible and fiscally responsible; with interim milestones and metrics for both rolling stock and electric vehicle infrastructure installation that reflect an ambitious and actionable schedule; The report back should include a timeline for the submission of relevant service requests to Southern California Edison and Los Angeles Department of Water & Power. The ZEB conversion schedule should ensure Metro's ability to continue providing reliable bus service, including availability of operations and maintenance funding to support the full 7 million annualized revenue service hours as planned through the NextGen Bus Plan.
- B. Provide quarterly reports beginning in January 2025 to the Operations Committee on progress towards accomplishing that plan, including status of grant applications;
- C. Present a list of alternative funding scenarios from what has been presented to date for zero emission bus fueling infrastructure deployment. The alternative scenarios should take into consideration all flexible capital dollars, including from Measures R and M, Propositions A and C, grants and any other revenues. The alternative scenarios should separate funding and timeline considerations between zero emission fueling infrastructure and rolling stock, focusing strictly on infrastructure deployment, and should provide the board options for moving near term funding from other capital projects to ZEB infrastructure projects where near term changes will not affect project delivery timelines for existing projects. It should also include a report back on any relevant Public Private Partnership opportunities, such as "charging as a service", or unsolicited proposals Metro has received thus far that could support lowering costs to Metro for the transition;
- D. ~~Issue a Request for Information to minimize Metro's capital outlay related to zero emission bus~~

~~procurements and infrastructure deployment;~~

- E. Develop a legislative and administrative advocacy strategy that supports increasing Metro's competitiveness in state and federal grant opportunities related to zero emission bus procurement and infrastructure deployment; and

- F. Present additional detail on the hydrogen bus procurement process including safety plans, sourcing strategies that protect public health, and justification for specific and narrow use cases where hydrogen buses are proposed to be deployed.

Zero Emission Bus (ZEB) Program Quarterly Update

VEHICLE ENGINEERING & ACQUISITION



Metro

Operations, Safety, and Customer Experience Committee

January 16, 2025

ZEB Infrastructure Updates (since September 2024)



Harbor Gateway Transit Center

- Chargers tested and commissioned, and operator training completed. To be complete spring 2025.

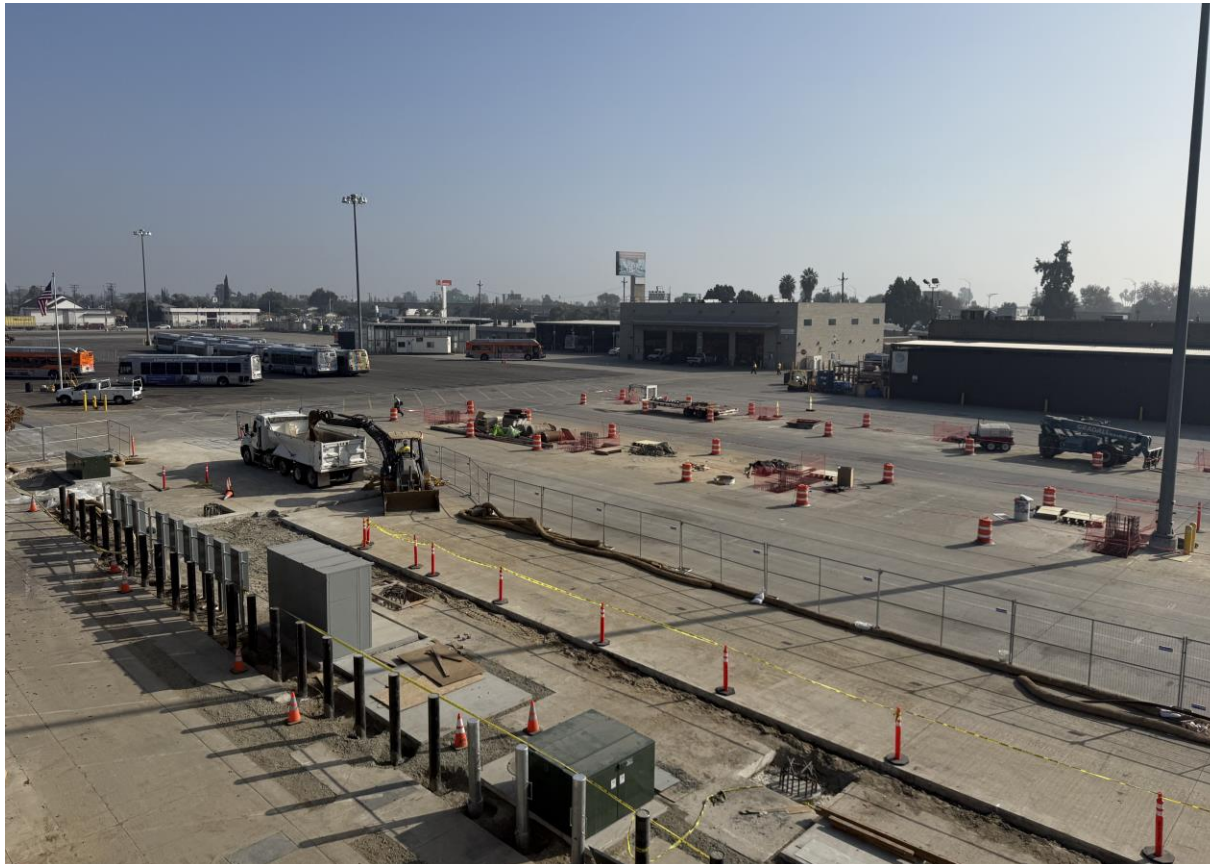


Photo: Progress at Division 9

Division 9

- Civil work began in Oct. Bus yard foundations installed. To be complete spring 2026.

Division 18 & 7

- Solicitation to be released for industry review in January
- Anticipated PDBOM delivery method

Enroute Charging Equipment

- Nine LADWP service requests submitted for sites to support North San Fernando Valley (NSFV), North Hollywood to Pasadena BRT, and other lines
- Open procurement for charging equipment
- Base order quantity of (14) chargers and three option quantities of (20) each.

Bus Acquisition and Grant Updates (since September 2024)



Active Bus Acquisitions

- Regional procurement proposals due February 27, 2025
- BYD to deliver 6-8 buses per month through November 2025

Recent Grant Applications

- TIRCP ZEB proposal was not awarded.
- Submitted **CTC Local Partnerships Program** application for \$24.9 million to fund up to 34 buses for Division 7. More than half of communities served by division are DACs.
- Preparing \$2 million request to **Regional Infrastructure Accelerator** program to fund advanced prelim engineering, planning, and regional shared charging strategy activities.



Photo: BYD K9MD bus

Systemwide ZEBs and Charging Equipment in Service



ZEBs in Operation (more than 5 million service miles to date)

- (40) 40-foot New Flyer buses on the G Line
- (5) 60-foot BYD buses
- (8) 40-foot BYD buses

Depot Charging Equipment

- **Division 1** (5) 50kW
- **Division 2** (5) 50kW
- **Division 3** (5) 50kW
- **Division 8** (10) 150kW
- **Division 9** (2) 50kW
- **Division 15** (5) 50kW**
- **Division 18** (6) 50kW
- **CMF** (2) 50kW

Enroute Charging Equipment

- **HGTC** (5) 450kW; (3) 360kW**
- **NHTC** (4) 450kW
- **Chatsworth Station** (2) 600kW
- **Canoga Station** (2) 600kW
- **AMC** (6) 360kW

**Denotes equipment installed since September



Photo: First charging session at HGTC

ZEB Program Continuing Activities Over Next Quarter



Upcoming project activities

- Construction at Division 9 and El Monte Transit Center to continue throughout 2025.
- Receive feedback from Division 18 & 7 industry review and incorporate as appropriate into RFP, which will be released in spring 2025.
- Initiate utility service requests for Divisions 13 & 5 and submit by summer 2025.
- Anticipate first two G Line replacement chargers will be installed, tested, and commissioned in spring 2025.

THANK YOU

