



Board Report

File #: 2021-0363, **File Type:** Informational Report

Agenda Number: 43.

**EXECUTIVE MANAGEMENT COMMITTEE
JUNE 17, 2021**

SUBJECT: DEVELOP A \$3.5B FUNDING PLAN TO SUPPORT THE METRO BOARD MOTION FOR ZERO EMISSION CONVERSION BY 2030

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE status report on programming of fund sources to meet the 2030 goal for the Zero Emission Bus (ZEB) Program with a preliminary program cost estimate of \$3.53 billion comprised of \$2.0B for Battery Electric Buses (BEB) and \$1.5B for Charging Infrastructure.

ISSUE

In April 2016, Metro's Board of Directors passed a motion to convert Metro's bus operations from CNG to Zero Emissions by 2030. In December 2018, the California Air Resources Board (CARB) issued the Innovative Clean Transit (ICT) regulation which requires all California public transit agencies to transition from conventional fueled buses to zero emission buses by 2040. In March 2021, staff presented the ZEB Rollout Plan (Attachments A & B: Item 2020-0636) which presented a phased implementation plan for the Battery Electric Buses to meet a 2030 ZEB conversion goal. With this goal, bus deliveries and expenditures are compressed resulting in expenditure demands exceeding available constrained funding sources. This report outlines the funding plans necessary to reduce potential delay risks due to limited budget allocations, constrained funding sources, limited personnel to manage the work, and long construction lead times.

BACKGROUND

Metro currently operates a fleet of approximately 2400 CNG buses of various lengths from ten (10) bus divisions. To transition to 100% Zero Emissions Bus operations Metro will have to address several challenges. Foremost is development of a funding plan that supports accelerated delivery of Zero Emission Bus conversion which includes, but is not limited to, Utility Upgrades from Southern California Edison (SCE) and Los Angeles Department of Water and Power (LADWP), Charging Infrastructure Installations, Battery Electric Bus Procurements, and Service Planning in line with BEB performance (NextGen).

As detailed in Figure-1, below, the Rough Order of Magnitude (ROM) cost to transition to 100% ZEB Operations is approximately \$3.53B. Over a 10-year period, this is an average of \$350M per year. In recent years Metro’s bus capital expenditures have averaged approximately \$190M. Therefore, Metro will need to identify funding sources to address the gap of approximately \$160M per year. This is a significant challenge. Even as more monies become available, there is growing competition for new and existing funds.

Figure-1

Division	Bus Qty	Infrastructure		En-Route	Buses	Total ²
		Min ¹	Max ²			
1	171	\$70.9M	\$100.1M	\$14.2M	\$150.8M	\$265.1M
2	169	\$67.3M	\$95.1M	\$16.8M	\$149.0M	\$261.0M
3	151	\$62.6M	\$88.4M	\$13.0M	\$133.2M	\$234.6M
5	167	\$66.5M	\$94.0M	\$8.4M	\$147.3M	\$249.6M
7	240	\$101.4M	\$143.3M	\$11.1M	\$211.6M	\$366.1M
8	358	\$134.0M	\$189.3M	\$16.7M	\$315.7M	\$521.7M
9	176	\$65.9M	\$93.1M	\$17.8M	\$155.2M	\$266.1M
10	175	\$65.5M	\$92.5M	\$4.5M	\$154.3M	\$251.4M
13	316	\$123.4M	\$174.3M	\$7.1M	\$278.7M	\$460.1M
15	245	\$93.7M	\$132.3M	\$17.6M	\$216.0M	\$366.0M
18	185	\$70.7M	\$99.9M	\$27.4M	\$163.1M	\$290.4M
Totals	2,353	\$921.9M	\$1.30B	\$154.7M	\$2.07B	\$3.53B

1. Baseline BEB Infrastructure Only
 2. Baseline Infrastructure + On-Site Storage + Solar

DISCUSSION

With the estimated cost of the ZEB Program identified as part of this Board item the financial planning can be implemented and adopted as part of the planned 2021 Short-Range Transportation Plan (SRTP). Staff will program future local, State, and Federal funding into the SRTP, and when made available, pursue grant applications like Low Carbon Transit Operations Program (LCTOP) and Transit and Intercity Rail Capital Program (TIRCP) to accumulate funding resources for the ZEB Program.

Future State or Federal Funding

Should additional State or Federal funding arise prior to the adoption of the SRTP, which may occur through the FY22 State budget, a new multi-year transportation bill (e.g., renewal of the FAST Act) or passage of the Biden American Jobs Plan in some form, the additional funding can be used for the ZEB Program and mitigate the funding need of competing Metro projects and programs.

Multi-Year Financial Impact

The Board adopted a comprehensive multi-year funding plan as part of the September 2020 Long Range Transportation

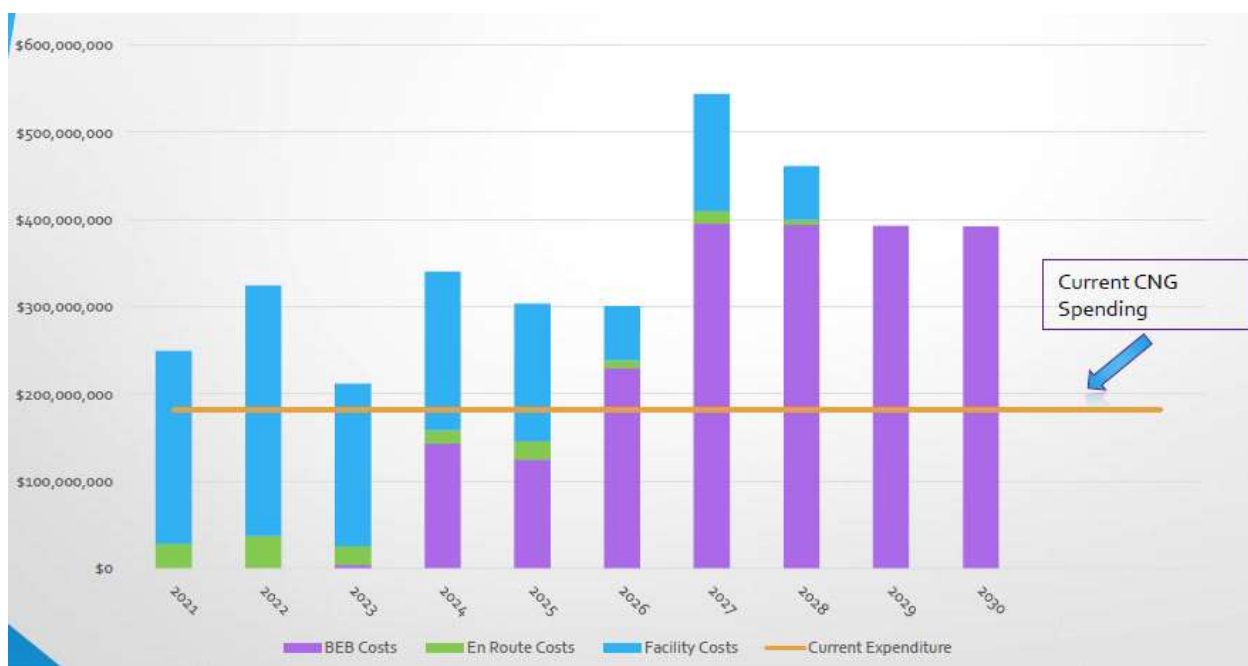
Plan (LRTP). The LRTP financial forecast identified funding for all planned Metro capital and operating costs, including bus replacement. The LRTP includes a replacement plan for the CNG fleet at a cost of \$1.856 billion from FY 20 through FY30 and reflects existing bus purchase contract deliveries. However, the cost for BEB and Charging Infrastructure installations were not included. Per Figure-1, the estimated cost of the ZEB Program is \$3.53 billion, and funding for this program may add at least \$1.674 billion of additional costs to the SRTP through 2030, excluding sunk costs of the CNG buses that have already been delivered since FY20.

The 2021 SRTP is currently in development and will be presented to the Board for adoption later this year. Funding will be identified in the SRTP for the ZEB Program and is expected to come from capital and operations-eligible funding that is currently programmed for the CNG replacement, including FTA Section 5307, Congestion Mitigation and Air Quality Program, Proposition C 40% Discretionary, Transportation Development Act, and the State Regional Improvement Program. Due to the magnitude of the cost of the BEB and Charging Infrastructure, the larger State grant programs including the TIRCP may be identified.

Per Figure-2, annual shortfalls are anticipated in funding the \$3.53B program. Bridging this funding gap requires a prioritization of the agency's ZEB capital program to meet the stretch goals to be completed by end of this decade. The higher incremental cost of the ZEB Program may require funding that is currently programmed for competing Metro priorities, including preventive maintenance, discretionary transit capital, midlife, and other state-of-good-repair needs. The programming of TIRCP to the ZEB Program may reduce the expected amount of State grant funding available for the major rail capital projects in the Measure M Expenditure Plan.

There is a likelihood that there will be unforeseen costs for the ZEB Program as with all projects undertaken of this scale. An example could be additional spending to address the limited range of BEB and the effectiveness and availability of charging technology. Also, the funding plan will require that Metro is successful in securing competitive grants.

Figure-2



DETERMINATION OF SAFETY IMPACT

Board approval of this item will directly contribute to improving the air quality in the Los Angeles basin and therefore will have a positive safety impact.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

This item supports the following Strategic Goals: 1) Provide high-quality mobility options that enable people to spend less time traveling, 2) Provide responsive, accountable, and trustworthy governance within the Metro organization, 3) Enhance communities and lives through mobility and access to opportunity, and 4) Transform LA County through regional collaboration and national leadership.

NEXT STEPS

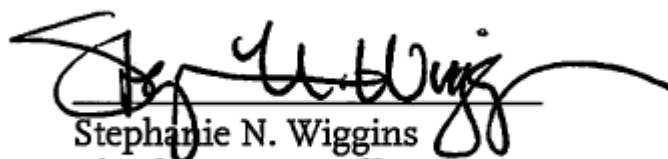
Metro will commence the development of a funding plan as part of the 2021 SRTP for the ZEB Program and identify the funding sources needed for the \$3.53B program estimate.

ATTACHMENTS

Attachment A: 2020-0636 March 2021 ZEB Rollout Plan
Attachment B: 2020-0636 March Presentation

Quintin Sumabat, DEO, Vehicle Engineering & Acquisition, (213) 922-4922
Jesus Montes, Sr. EO, Vehicle Engineering & Acquisition, 213-418-3277

Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051
James de la Loza, Chief Planning Officer, (213) 922-2920



Stephanie N. Wiggins
Chief Executive Officer