



November 14, 2024

To: Transit Committee
From: Darrell E. Johnson, Chief Executive Officer
Subject: Award the Purchase of Zero-Emission Buses

A handwritten signature in blue ink, appearing to read "DEJ", with the word "For" written in smaller letters to the right of the signature.

Overview

The California Air Resources Board passed the Innovative Clean Transit Rule in 2018 requiring transit agencies to transition their bus fleets to 100 percent zero-emission buses by the year 2040. The Orange County Transportation Authority intends to replace 50 compressed natural gas buses from the current fleet that have met their useful life with ten battery-electric buses and 40 fuel-cell electric buses. Quotes were requested from a qualified firm under the California Statewide Contract for Zero-Emission Transit Buses issued by the State of California's Department of General Services. Board of Directors' approval is requested to award an agreement for the purchase of these vehicles.

Recommendations

- A. Approve the selection of New Flyer of America Inc. as the firm to provide 40 fuel-cell electric buses intended to replace 40 compressed natural gas buses that have exceeded their useful life.
- B. Authorize the Chief Executive Officer to negotiate and execute Purchase Order No. C-3-3021 between the Orange County Transportation Authority and New Flyer of America Inc., in the amount of \$63,594,512, for the purchase of up to 40, 40-foot fuel-cell electric buses.
- C. Approve the selection of New Flyer of America Inc. as the firm to provide ten battery-electric buses intended to replace ten compressed natural gas buses that have exceeded their useful life.
- D. Authorize the Chief Executive Officer to negotiate and execute Purchase Order No. C-3-3022 between the Orange County Transportation Authority and New Flyer of America Inc., in the amount of \$13,870,388, for the purchase of up to ten, 40-foot battery-electric buses.

Discussion

The California Air Resources Board (CARB) passed the Innovative Clean Transit (ICT) Rule in 2018 requiring all public transit agencies to transition their bus fleets to zero-emission technologies by year 2040. The ICT rule requires 25 percent of new bus purchases to be zero-emission buses (ZEB) starting in 2023 and increasing to 50 percent in 2026. In 2029, all bus purchases must be for ZEB with the goal of a complete transition to a ZEB fleet by 2040.

The Orange County Transportation Authority (OCTA) initiated a pilot program to test both existing ZEB technologies, starting with the introduction of ten hydrogen fuel-cell electric buses (FCEB) which were placed into service in early 2020, and followed by ten battery electric buses (BEB) introduced in 2022. The ZEB Pilot Program has enabled OCTA to gain necessary operational and technological experience for each ZEB type available to shape and define the fleet mix required to meet the service demands of Orange County.

The new buses will be equipped with all OCTA-required equipment and branding requirements, which includes exterior paint and OC Bus branding for use in regular service. In addition, these buses will include an on-board video surveillance system (OBVSS) equipped with reverse-motion and interior 360-degree cameras, fire and hydrogen detection systems, driver barriers, three-position bicycle racks, awareness monitors/displays, provisions to mount devices at the front and rear doors for electronic fare transactions, radio communication system wiring and components, as well as all other systems and components required for a full integration of these buses into the OCTA fleet.

Grant funding for the purchase of the FCEBs will come from various state and federal sources including the Transit and Intercity Rail Capital Program, Low Carbon Transit Operations Program, Congestion Mitigation and Air Quality (CMAQ), and the Conservation Reserve Program (CRP). The BEBs will also be purchased with grant funding from the SB 125 (Chapter 54, Statutes of 2023) Transit Program, CMAQ, and CRP.

Procurement Approach

According to the Federal Transit Administration (FTA), public transit agencies are encouraged to use cooperative agreements for the procurement of common goods and services to foster greater economy and efficiency. As such, OCTA identified existing cooperative agreements issued by the State of California's Department of General Services (DGS) that contain an assignability clause and include the type of buses needed by OCTA.

These procurements were handled in accordance with OCTA-approved procedures for acquisition through assigned contract rights, also known as piggybacking. OCTA's piggybacking policies and procedures authorized OCTA to request pricing directly from the qualified firm if the existing agency's agreement only lists one qualified firm that can meet OCTA's specifications.

On March 22, 2024, OCTA requested quotes from New Flyer of America Inc. (New Flyer), an awarded participant, to provide pricing for FCEBs and BEBs. DGS awarded the BEB contracts through a competitive procurement process to three manufacturers: BYD Motors, Inc. (BYD), Proterra, and New Flyer. However, Proterra is undergoing bankruptcy proceedings, and the bus offered by BYD does not meet OCTA's technical requirements. As a result, New Flyer is the only manufacturer on the BEB approved list that meets OCTA's specifications and is also the only manufacturer on the FCEB approved DGS award list.

On May 15, 2024, quotes were received and reviewed by staff from the Contracts Administration and Materials Management and Transit Technical Services departments. OCTA met with New Flyer to discuss technical requirements, among other issues including warranty and acceptance payment process.

To meet OCTA's standard vehicle inspection procedures and ensure that new buses are operating successfully, OCTA requires the lead bus in production to achieve 40 hours of uninterrupted service before proceeding with the full production. This requirement exceeds the standard DGS acceptance process. As part of the negotiation for these buses, OCTA has preliminarily agreed to provide milestone payments per bus and cover the acceptance fee for the pilot/lead buses.

Optional equipment that is specific to OCTA such as the Cradlepoint mobile routers, Kidde Fire suppression system, and March Networks OBVSS accounted for approximately four percent of the overall cost per BEB and FCEB. Staff conducted a cost-price analysis comparing the equipment in the FCEBs purchased in 2018 and BEBs purchased in 2020 to the proposed pricing for the current ZEB procurement. In 2018, the costs of OBVSS for the FCEBs were incorporated into the base price, making direct comparison difficult. Staff conducted a cost-price analysis on the remaining equipment. The cost of Cradlepoint mobile routers has decreased by 83 percent, while the cost of Kidde Fire suppression system has decreased by 60 percent.

OCTA last purchased BEBs in 2020. During the period of 2020 to 2024, the Producer Price Index (PPI) for transportation equipment increased by approximately 87 points, or about 33 percent. In comparison, when evaluating

the cost of equipment from OCTA's 2020 BEB purchase against the proposed costs in 2024, the average cost of Cradlepoint mobile routers, and Kidde Fire system have increased by only 20 percent, which is lower than the PPI. Pricing for the OBVSS increased by 41 percent.

Overall, the pricing for the equipment is deemed fair and reasonable when considering the changes reflected in the PPI and the limited competition among manufacturers.

The initial quote for the purchase of 40 FCEBs was \$69,764,991, and the cost for ten BEBs was \$14,624,938 for a total cost of \$84,389,929. Staff negotiated the vehicle pricing and sought the zero-emission vehicle sales tax exemption under Section 6377 of the California Revenue and Taxation Code that was extended until January 1, 2026. This tax exemption reduced the taxes on all buses from 7.75 percent per bus to 3.94 percent per bus. The total negotiated cost to replace the 50 buses that have exceeded their useful life with 40, 40-foot FCEBs and ten, 40-foot BEBs is \$77,464,900, a total savings of \$6,925,029 from the original quote. This includes a final cost of \$63,594,512 for the purchase of 40, 40-foot FCEBs and \$13,870,388 for the purchase of ten BEBs. The total cost also includes all OCTA required equipment and branding, which is to be installed following delivery and acceptance.

The FTA requires completion of a pre-award Buy America audit for purchases using FTA funds for rolling stock. The audit is to verify the requirement that 70 percent of the parts content of the vehicle to be purchased are made in the United States. A recipient purchasing revenue service rolling stock with FTA funds must ensure that a pre-award audit is complete before the recipient enters into a formal contract for purchase. The pre-award Buy America audit was performed by OCTA's Internal Audit Department.

Fiscal Impact

Funds required for the FCEB purchase will be provided through FTA and funds for the BEB purchase will be provided through state and local sources. The amount budgeted for OCTA fiscal year 2024-25 is \$74,500,000 and \$77,464,900 is required. As a result, staff is requesting the approval of a budget transfer in the amount of \$2,964,900.

Summary

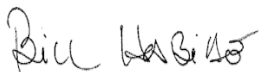
Board of Directors' approval is requested to authorize the Chief Executive Officer to negotiate and execute Purchase Order No. C-3-3021 between the Orange County Transportation Authority and New Flyer of America Inc., in the amount

of \$63,594,512, for the purchase of up to 40, 40-foot fuel-cell electric buses, and Purchase Order No. C-3-3022 between the Orange County Transportation Authority and New Flyer of America Inc., in the amount of \$13,870,388, for the purchase of up to ten, 40-foot battery-electric buses.

Attachments

- A. Independent Pre-Award Agreed-Upon Procedures Applied to New Flyer's Proposal for Forty 40-Foot Hydrogen Fuel Cell Buses
- B. Independent Pre-Award Agreed-Upon Procedures Applied to New Flyer's Proposal for Ten 40-Foot Battery-Electric Buses

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