



October 8, 2020

To: Transit Committee

From: Darrell E. Johnson, Chief Executive Officer

Subject: Agreement for the Procurement of 40-Foot Plug-In Battery-Electric Buses

Overview

On April 27, 2020, the Orange County Transportation Authority Board of Directors approved the release of a request for quotes for the purchase of up to ten, 40-foot plug-in battery-electric buses. As a result, quotes from qualified vendors under the California Statewide Contract for Zero-Emission Transit Buses issued by the California Department of General Services have been evaluated. Board of Directors' approval is requested to award an agreement for the purchase of these buses.

Recommendation

Authorize the Chief Executive Officer to negotiate and execute Agreement No. C-0-2165 between the Orange County Transportation Authority and New Flyer of America, Inc., in the amount of \$10,373,230, for the purchase of up to ten 40-foot plug-in 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 also requires that a percentage of new bus purchases be zero-emission buses (ZEB) beginning with 25 percent in 2023 and increasing to 50 percent in 2026. Starting in 2029, bus purchases must be 100 percent ZEBs with the goal of a complete transition to ZEBs by 2040. CARB defines a ZEB as a bus with zero tailpipe emissions and is either a battery-electric bus or a fuel-cell electric bus.

The Orange County Transportation Authority (OCTA) has initiated a pilot program to test ZEBs in order to determine which technology best meets OCTA's service requirements. The pilot was initiated with the introduction of ten hydrogen

fuel-cell electric buses, which were placed into service in early 2020. Adding ten, 40-foot plug-in battery-electric buses to the pilot program will enable OCTA to gain necessary operational and technological experience for each ZEB type available in order to shape and define the fleet mix required to meet the service demands of Orange County when utilizing ZEBs.

The ZEBs currently in the market are experiencing challenges associated with vehicle operating range, charging times, cost, and infrastructure demands. Plug-in battery-electric buses require charging stations that are expected to exceed the current available electric capacity at OCTA bus facilities. In addition, battery charging times will need to be coordinated to meet bus service demands to maximize the operating range and cost effectiveness. Working through these operational and infrastructure challenges during a pilot will allow staff to compare and evaluate the operational effectiveness and limitations of this technology for large-scale deployment.

The new buses will be equipped with all OCTA-required equipment and branding requirements, which includes BRAVO! exterior paint branding for five buses and OC Bus branding for five buses for use regular service. In addition, these buses will include an on-board video surveillance system equipped with reverse-motion and interior 360-degree cameras, fire and methane detection systems, driver barriers, three-position bicycle racks, 12-inch and 15-inch awareness monitors/displays, provisions to mount devices at the front and rear doors for electronic fare transactions, tire pressure monitoring system, upgraded radio communication system (voice over internet protocol), as well as all other systems and components required for a full integration of these buses into the OCTA fleet.

The ten plug-in battery-electric buses will operate out of the Garden Grove base with in-depot charging during the evening hours. The battery storage systems can store 438 kWh of energy, providing an estimated 200 miles of range. Available seating capacity is similar to our existing fleet with 39 seated and 37 standees. Additionally, the manufacturer is providing an "Extended Warranty Propulsion System 4 years/200K miles (total of 6 years/300K miles)." Five of the ten, 40-foot plug-in battery-electric buses will be grant-funded through the California Transportation Commission Solutions for Congested Corridors Program (SCCP) under SB 1 (Chapter 5, Statutes of 2017) and the Low Carbon Transit Operations Program (LCTOP), administered by the California Department of Transportation. These buses will mark the introduction of OCTA's newest Bravo! route, Bravo! Main Street, providing rapid bus service between the Anaheim Regional Transportation Intermodal Center and South Coast Metro via Main Street. The remaining five buses will operate throughout Orange County and will be funded through LCTOP, SB 1 State of Good Repair (SGR), and

potentially the Volkswagen Environmental Mitigation Trust for California (VW Mitigation Trust), California Hybrid and Zero-Emission Truck and Bus Voucher Incentive Program (HVIP), and federal funds, if available.

Procurement Approach

The OCTA Board of Directors (Board)-approved procurement policies and procedures allow for two options to purchase new vehicles. OCTA can either issue a request for proposals (RFP) or partner with another public agency and use its existing bus agreement. Using the first option, OCTA issues an RFP containing detailed vehicle specifications. The advantage of this procurement method is that OCTA can specify exactly the type of bus desired. The challenge of this procurement option is the timeline, which may take up to 18 months from when an RFP is issued to the time when the first article is received, and then an additional 12 months to receive the remaining vehicles.

Using the second option, OCTA identifies an existing contract with another agency for the type of buses desired, containing an assignability clause, and issues a request for quotes (RFQ) to the participating firms. The advantage of this procurement method is a shortened timeline, and OCTA can begin receiving buses in a much shorter time. In some cases, this could reduce the vehicle delivery for the entire bus order by as much as six months. In addition to the base configuration of the vehicles under the existing contract, OCTA can include standard fire detection and suppression systems, and radio hardware consistent with OCTA's existing fleet.

Based on the timeframes included in the ICT rule and the need to evaluate ZEBs prior to any large-scale future fleet purchases, staff determined that the cooperative contract procurement option is the most advantageous to OCTA due to the shortened procurement and vehicle delivery time. It was determined that the California Department of General Services (DGS) completed a cooperative procurement that specified vehicles with similar specifications to OCTA's requirements. The procurement allows for any city, county, district, or other governmental body to utilize this cooperative procurement.

On April 27, 2020, OCTA issued RFQ 0-2165 to both California DGS-awarded participants, New Flyer of America, Inc. (New Flyer), and Proterra, Inc. (Proterra), to provide pricing for specific features that meet OCTA's bus requirements. On July 10, 2020, two quotes were received. Both quotes were reviewed by staff from the Contracts Administration and Materials Management and Transit Technical Services departments.

On July 30, 2020, OCTA requested clarification on some cost items submitted with the initial quote. Based on the submitted quote, the evaluation committee is recommending that New Flyer be selected to provide the vehicles. The total cost to purchase ten, 40-foot plug-in battery-electric buses from New Flyer is \$10,373,230, or \$1,037,323 per bus, which includes all OCTA required equipment.

The Federal Transit Administration (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. This purchase is contingent upon completion of the pre-award Buy America audit that will be performed by OCTA's Internal Audit Department.

Fiscal Impact

Funding for the procurement of ten, 40-foot plug-in battery-electric buses is included in the OCTA Fiscal Year 2020-21 Budget, under Account No. 2114-9024-D2116-0UU, and funded through LCTOP, SB 1 SCCP, SB 1 SGR, VW Mitigation Trust, and HVIP. Due to insufficient funding capacity throughout the state, HVIP funds may not be available. If it is determined that additional funds are needed to replace HVIP funds, staff will return with a recommendation to use Federal Congestion Mitigation and Air Quality Improvement Program funds to meet the funding need. HVIP support was estimated at \$1,205,000.

Summary

Based on the information provided, staff recommends the Board of Directors authorize the Chief Executive Officer to negotiate and execute Agreement No. C-0-2165 between the Orange County Transportation Authority and New Flyer of America, Inc., in the amount of \$10,373,230, for the purchase of up to ten, 40-foot plug-in battery-electric buses.

Attachment

A. 40-Foot Plug-In Battery-Electric Bus Procurement Price Comparison

Prepared by:



Dayle Withers
Department Manager, Maintenance
(714) 560-5538

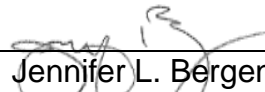
Approved by:



Cliff Thorne
Director, Maintenance and Motorist
Services
(714) 560-5975



Pia Veasapen
Interim Director, Contracts
Administration and Materials
Management
(714) 560-5619



Jennifer L. Bergener
Chief Operating Officer, Operations/
Deputy Chief Executive Officer
(714) 560-5462