



February 9, 2017

To: Transit Committee

From: Darrell Johnson, Chief Executive Officer

Subject: Cooperative Agreement to Accept Grant Funding for the Hydrogen Fuel Cell Electric Bus Project

Overview

A grant from the California Air Resources Board has been awarded which provides grant funds for the purchase of ten hydrogen fuel cell electric buses, a fueling station, and facility modifications. Additional funds from the South Coast Air Quality Management District have also been awarded for this project. This cooperative agreement defines the roles and responsibilities of each party for the acceptance of the grant funds.

Recommendations

- A. Authorize the Chief Executive Officer to negotiate and execute Cooperative Agreement No. C-7-1538 between the Orange County Transportation Authority and the Center for Transportation and the Environment, in the amount of \$13,241,092, to provide for the purchase of ten hydrogen fuel cell electric buses, construction of a liquid hydrogen station, and modification of maintenance facilities.
- B. Amend the Orange County Transportation Authority's Fiscal Year 2016-17 Adopted Budget, in the amount of \$13,241,092, to accommodate the hydrogen fuel cell electric bus project and available grant funding from the California Air Resources Board and the South Coast Air Quality Management District.

Discussion

On November 23, 2015, the Orange County Transportation Authority (OCTA) Board of Directors (Board) approved submission of a grant application to the California Air Resources Board (ARB), in partnership with the Center for Transportation and the Environment (CTE), Alameda-Contra Costa Transit District (AC Transit), New Flyer of America (New Flyer), and Linde LLC (Linde),

collectively known as the Fuel Cell Electric Bus Commercialization Consortium. The lead applicant on the grant application was CTE, who will also provide project management and oversight responsibilities for the projects at OCTA and AC Transit.

On July 22, 2016, the ARB notified applicants of the preliminary selection of projects to be funded, pending appropriation of Cap and Trade funds by the California Legislature and adoption of the funding plan by the ARB Board. Funds were appropriated before the end of the 2015-16 legislative session, and on October 20, 2016, the ARB Board adopted the funding plan. CTE has been working with ARB to finalize the grant agreement. Since CTE is the lead applicant, the grant agreement will be between the ARB and CTE. CTE will enter into cooperative agreements with OCTA and AC Transit for the pass through of the grant funds. All ARB grant requirements will flow through to OCTA and AC Transit.

In addition to the ARB grant funds, the South Coast Air Quality Management District (SCAQMD) also awarded CTE \$1,000,000 towards the purchase of OCTA's ten hydrogen fuel cell electric buses.

The following are the key provisions in the cooperative agreement:

- OCTA will receive the following grant funds, as reimbursement to expenditures:
 - \$4,777,732 for hydrogen station construction, gas detection, commissioning, and one year routine maintenance
 - \$710,541 for utility upgrades necessary for the hydrogen station
 - \$7,338,000 for ten hydrogen fuel cell electric buses (\$6,338,000 from ARB and \$1,000,000 from SCAQMD)
 - \$414,819 for facility modifications for hydrogen detection and ventilation
- OCTA will provide \$10,727,961 local match for the ARB grant, which includes \$1,000,000 cash from SCAQMD, \$6,000,000 from OCTA toward the purchase of the buses, and \$3,727,961 in-kind contribution for staff time and operation and maintenance of the buses. The current 40-foot compressed natural gas bus order with New Flyer was reduced by ten vehicles to accommodate the \$6,000,000 cash contribution and ensure that the fleet is not over capitalized.

- OCTA will execute agreements with New Flyer for the hydrogen fuel cell electric buses and with Linde for the construction, commissioning, and maintenance of the hydrogen station, liquid hydrogen fuel, and rental of a liquid hydrogen storage tank.
- OCTA will complete all necessary facility upgrades in the maintenance bays for the detection and ventilation of hydrogen gas.
- OCTA will deploy and maintain the buses and fuel station through the useful life of the equipment.
- OCTA will work with CTE to ensure collection of data and submission of required reports to ARB.
- OCTA will deploy buses in regular transit service within disadvantaged communities as described in the grant application. Bus routes include the 29, 47, 53, 55, and 64. See Attachment A.
- OCTA will comply with all state, federal, and local laws related to the construction of the station, upgrade of the facilities, and deployment of the buses.
- OCTA will maintain project records for a minimum of three years after the term of the grant for inspection and audit by the state.
- CTE will serve as the recipient of grant funds to be passed through to OCTA upon reimbursement of funds from ARB and SCAQMD.
- CTE will assist OCTA with the development of the technical specifications for the hydrogen fuel cell electric buses, liquid hydrogen station, and facilities modifications.
- CTE will perform the engineering for the maintenance facilities upgrade.
- CTE will oversee the bus build in-plant inspections.
- CTE will assist in the development and delivery of a maintenance support plan and training of coach operators, maintenance personnel, and first responders.
- CTE will ensure the installation of data collection equipment and coordinate the data collection and reporting.
- CTE will prepare and submit all reports to the ARB and SCAQMD.

The key milestones for the project are shown in the table below.

Milestone	Completion
Execute agreement with New Flyer and issue notice to proceed on bus build	4/24/2017
Execute agreements with Linde and issue notice to proceed for construction of hydrogen station	4/24/2017
Deliver first article hydrogen fuel cell electric bus	4/12/2018
Delivery of remaining nine buses beginning 10/19/2018	12/13/2018
Complete 40-hour in-service testing and final acceptance	12/28/2018
Complete final design and engineering of hydrogen station	9/18/2017
Break ground on hydrogen station	6/26/2018
Complete hydrogen station construction	11/5/2018
Complete hydrogen station commissioning	12/31/2018
Complete design and engineering of facility upgrades	8/22/2017
Complete facility upgrades	7/25/2018
Complete operations, maintenance, facility maintenance, and first responder training	12/31/2018
Complete vehicle data collection	1/31/2020

In order to meet the ARB deadline for completing the project and requesting reimbursement of funds, sole source agreements with New Flyer and Linde need to be executed by April 28, 2017. Staff will return to the Board within the next couple of months with these agreements for consideration.

Fiscal Impact

The project was not included in the approved fiscal year 2016-17 budget. A budget amendment in the amount of \$13,241,092 to account strings 0030-6053-D2157-YHS and 0030-6053-D2157-XHY is necessary to accommodate the grant funding from the California Air Resources Board and the South Coast Air Quality Management District.

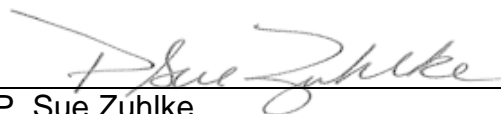
Summary

Based on the information provided, staff recommends authorizing the Chief Executive Officer to negotiate and execute Agreement No. C-7-1538 with the Center for Transportation and the Environment, in the amount of \$13,241,092, for the pass through of grant funds for the hydrogen fuel cell electric bus project. A budget amendment is also requested to accept the grant funds.

Attachment

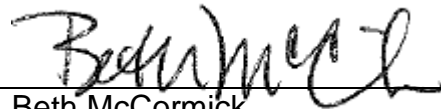
A. Disadvantaged Communities and OCTA Routes

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