



March 9, 2017

To: Transit Committee

From: Darrell Johnson, Chief Executive Officer

Subject: Sole Source Agreement for the Construction of a Liquid Hydrogen Fuel Station at the Santa Ana Bus Base

Overview

The Orange County Transportation Authority has been awarded grant funds for the purchase of ten hydrogen buses, construction of a liquid hydrogen fuel station, and modifications to facilities. The grant application was submitted in partnership with the bus and hydrogen fuel station manufacturers. A sole source agreement is required for the construction of a liquid hydrogen fuel station at the Santa Ana Bus Base.

Recommendations

- A. Authorize the Chief Executive Officer to negotiate and execute sole source Agreement No. C-7-1577 between the Orange County Transportation Authority and Linde LLC, in the amount of \$4,777,732, for the construction of a liquid hydrogen fuel station at the Santa Ana Bus Base.
- B. Amend the Orange County Transportation Authority's Fiscal Year 2016-17 Adopted Budget, in the amount of \$4,777,732, to accommodate the construction of a liquid hydrogen fuel station at the Santa Ana Bus Base.

Discussion

On February 13, 2017, the Orange County Transportation Authority (OCTA) Board of Directors (Board) authorized the Chief Executive Officer to negotiate and execute an agreement with the Center for Transportation and the Environment (CTE) to accept \$13,241,092, in grant funds from the California Air Resources Board (ARB) and the South Coast Air Quality Management District. OCTA partnered with CTE, the Alameda Contra Costa Transit District, New Flyer of America, and Linde LLC (Linde) to submit a grant application that would provide OCTA with ten hydrogen fuel cell buses, a liquid hydrogen fueling

station, and modifications to facilities for the detection and emergency evacuation of hydrogen gas.

Linde was chosen as the fuel station provider due to having a hydrogen fueling system that delivers constant pressure which allows consecutive buses to be fueled in about five to six minutes without diminishing performance, which is similar to the fueling time of a bus with compressed natural gas. Other hydrogen fueling systems use a cascade system to build pressure which results in the first few buses being fueled in six minutes, with remaining buses being fueled much slower, taking up to 20 minutes each or longer based on the number of buses being fueled. Moreover, the ARB solicitation provided that projects with identified vendors that would ensure vehicles and infrastructure will be built in advance of ARB's grant completion deadline would be scored higher.

Grant Funding for the hydrogen bus project is contingent upon utilizing the vendors identified in the grant application. Therefore, a sole source agreement with Linde is necessary to construct the hydrogen fuel station.

Under the terms of the firm's fixed-price agreement, OCTA will be responsible for bringing utilities and communication lines to the equipment site. These costs are funded by the ARB grant. Linde will be required to provide all necessary equipment and labor for the construction of the station at the Santa Ana Bus Base, including the production of site and station design plans, equipment drawings, connection of the utilities and communication lines, and training. Linde will also be responsible for installing the dispensing equipment at the existing fuel island and for the installation of hydrogen detection equipment at the fuel island.

Payment milestones are as follows:

Milestone	Payment Amount	Completion Date
Completion of site and station design plans	\$1,620,000	5/22/2017
Completion of equipment drawings	\$463,000	8/21/2017
Equipment manufactured and shipped	\$926,000	6/25/2018
Fueling equipment installed	\$1,160,000	10/29/2018
Completion of training and station commissioning	\$608,732	12/31/2018
Total	\$4,777,732	

Linde will also provide ongoing operations and maintenance of the station, as well as provide the liquid hydrogen. Staff will return to the Board at a later date for approval to execute the two agreements.

Compliance with the California Environmental Quality Act (CEQA) is required as part of the California ARB grant solicitation for Zero-Emission Truck and Bus Pilot Commercial Deployment Projects. OCTA determined the Hydrogen Fuel Cell Bus Pilot Program project was exempt from CEQA since the purchase and operation of the zero emissions hydrogen fuel buses and associated infrastructure consists of the installation of small new equipment and facilities within a small structure, is a minor alteration of an existing public facility, and involves a negligible or no expansion of the current use. The proposed project will not result in a direct or reasonably foreseeable indirect physical change in the environment. On January 15, 2016, OCTA filed a Notice of Exemption pursuant to CEQA with the Orange County Clerk-Recorder's Office.

Procurement Approach

The procurement was handled in accordance with OCTA's Board-approved policies and procedures for a sole source procurement.

OCTA is one of the grant recipient of the award for purchase of ten hydrogen buses, construction of a hydrogen fuel station, and modification to facilities. Linde was chosen as the provider to construct the fuel station, and is one of the members of the Fuel Cell Electric Bus Commercialization Consortium. In order to maintain the grant eligibility, OCTA will be required to use Linde to build the fuel station.

The grant funding is a fixed amount of \$4,777,732, and includes the hydrogen station construction, gas detection, commissioning, and one-year routine maintenance.

OCTA's procurement policy requires that sole source procurements over \$50,000 be reviewed by OCTA's Internal Audit Department. However, since this is grant award and the price of the construction was already established as a part of the award, a cost analysis is not needed. As a part of the project, staff has requested a detailed cost breakdown.

Fiscal Impact

The project was not included in OCTA's Fiscal Year 2016-17 Budget. Funds have been added to Account 1722-9022-D2157-OMO, Hydrogen Fuel Station. The expenditure is offset by the ARB grant revenue in Account 0030-6053-D2157-YHS, approved by the Board on February 13, 2017.

Summary

Based on the information provided, staff recommends award of Agreement No. C-7-1577 to Linde LLC, in the amount of \$4,777,732, for the construction of a liquid hydrogen fuel station at the Santa Ana Bus Base.

Attachment

None.

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