



February 8, 2018

To: Transit Committee *[Signature: Kenneth R. Johnson for]*
From: Darrell Johnson, Chief Executive Officer
Subject: Contract Change Order to Add Equipment to the Hydrogen Fuel Station

Overview

On November 13, 2017, the Orange County Transportation Authority Board of Directors authorized Agreement No. C-7-1577 with Trillium USA Company LLC, for the construction, operation, and maintenance of a hydrogen fuel station and liquid hydrogen deliveries. A contract change order is requested to install additional equipment to the hydrogen station to increase fueling capacity.

Recommendation

Authorize the Chief Executive Officer to negotiate and execute Contract Change Order No. 1 to Agreement No. C-7-1577 with Trillium USA Company LLC, in the amount of \$442,305, for the installation of additional equipment to increase fueling capacity of the hydrogen fuel station. This will increase the maximum obligation of the agreement to a total contract value of \$6,914,432.

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. These grant funds will provide funding to purchase ten hydrogen fuel cell electric buses, construct a hydrogen fuel station, upgrade utilities for the station, and upgrade facilities for the detection of hydrogen gas. The awarded grant funds include \$4,777,732, for construction of the hydrogen station.

On November 13, 2017, the OCTA Board awarded Agreement No. C-7-1577 to Trillium USA Company LLC (Trillium) for the construction of the hydrogen fuel

station, operation and maintenance (O&M) of the station, and liquid hydrogen deliveries. The Trillium agreement includes a \$4,335,427 capital cost amount for construction of the station, and the California ARB project grant has available capital funding not to exceed \$4,777,732.

As currently proposed, both dispensers cannot be used simultaneously while maintaining a fueling rate of at least six buses per hour. In order to use both dispensers simultaneously, a second vaporizer, additional three-pack of high pressure storage tubes, and additional controls will need to be added. Trillium proposed an upgraded dispensing system that included two dispensers to provide this redundancy that can be funded within the available grant.

The California ARB has released proposed regulations that may require 25 percent of new bus purchases starting January 1, 2020, to be zero emission, ramping up to 100 percent starting January 1, 2029. Should OCTA decide to add additional hydrogen electric buses to its fleet in the future, the upgrade will add the required additional capacity to the station.

Procurement Approach

The initial procurement was conducted by CTE in consultation with OCTA staff and in accordance with OCTA procurement guidelines. On November 13, 2017, the Board authorized Agreement No. C-7-1577 with Trillium, in the amount of \$6,472,127, for the construction of the hydrogen fuel station, O&M of the station, and delivery of liquid hydrogen.

The OCTA project engineer's cost estimate for this Contract Change Order (CCO) No. 1 was \$445,500; therefore, Trillium's quote of \$442,305, is deemed fair and reasonable.

The proposed CCO No. 1, in the amount of \$442,305, will increase the maximum cumulative payment obligation of the agreement to \$6,914,432.

Fiscal Impact

Grant funds in the amount of \$4,777,732 for the project were approved by the Board on November 13, 2017, as an amendment to OCTA's Fiscal Year 2017-18 Budget, Capital Programs Division, Account 1722-9022-D2157-0MO, and were funded through the Low Carbon Transportation Investments and Air Quality Improvement Program grant from the California ARB's allocation of Cap and Trade Program funds.

Summary

Based on the information provided, staff recommends authorization for the Chief Executive Officer to negotiate and execute Contract Change Order No. 1 to Agreement No. C-7-1577 with Trillium USA Company LLC, in the amount of \$442,305, for the installation of additional equipment to expand the capacity of the hydrogen fuel station.

Attachment

- A. Trillium USA Company LLC, Agreement No. C-7-1577, Contract Change Order Log

Prepared by:



George Olivo, P.E.
Program Manager
(714) 560-5872

Approved by:



James G. Beil, P. E.
Executive Director, Capital Programs
(714) 560-5646



Virginia Abadessa
Director, Contracts Administration and
Materials Management
(714) 560-5623