



November 9, 2023

To: Transit Committee

From: Darrell E. Johnson, Chief Executive Officer

Subject: Amendment to Agreement for Hydrogen Station Operation, Maintenance, and Fuel Delivery

Overview

On November 13, 2017, the Orange County Transportation Authority Board of Directors approved an agreement with Trillium USA Company LLC to install a fully operational hydrogen fueling station at the Santa Ana Bus Base to provide operation and maintenance service and deliver hydrogen fuel. An amendment is required to exercise the second option term for station operation and maintenance, and hydrogen fuel delivery.

Recommendation

Authorize the Chief Executive Officer to negotiate and execute Amendment No. 8 to Agreement No. C-7-1577 between the Orange County Transportation Authority and Trillium USA Company LLC, in the amount of \$625,049, to exercise the second option term of the agreement from January 1, 2024 through December 31, 2024, for continued hydrogen station operation, maintenance, and hydrogen fuel delivery. This will increase the maximum obligation of the agreement to a total contract value of \$8,651,734.

Discussion

In December 2018, the California Air Resources Board (CARB) enacted the Innovative Clean Transit Regulation, which set staged rules requiring transit agencies to transition to zero emissions buses by 2040. Currently, CARB recognizes two technologies in compliance with this regulation, Battery Electric Bus (BEB) and Fuel Cell Electric Bus (FCEB). BEBs use batteries to power electric motors to propel the bus, and the batteries are charged either at the bus depot or by in-route charging. FCEBs are configured in much the same way, using batteries and electric motors. The difference is that the FCEB batteries are smaller and are charged by an on-board hydrogen fuel cell while the bus is in route eliminating the need for independent charging.

The Orange County Transportation Authority (OCTA) is conducting a pilot program to compare these two technologies, using 10 BEBs and 10 FCEBs of the same make and model. This will allow OCTA to properly evaluate the actual operating range of each type, along with operation, maintenance, and reliability. The ten FCEBs have now been in service for nearly four years.

To support fueling of the FCEBs, a hydrogen fueling station was installed at OCTA's Santa Ana Bus Base. The fueling station relies on deliveries of liquid hydrogen, which is stored in an 18,000-gallon cryogenic tank. The fuel is compressed, evaporated, chilled, and then dispensed under high pressure into the fuel tanks on board the buses. As currently configured, the station can fuel up to 50 FCEBs.

OCTA currently contracts with Trillium USA Company LLC for the operations and maintenance of the hydrogen fueling station. The first option term of the agreement for hydrogen station operation, maintenance, and fuel delivery will expire on December 31, 2023. An amendment is required to exercise the second and final option term to continue services.

Procurement Approach

This procurement was originally handled in accordance with OCTA's Board of Directors (Board)-approved policies and procedures for professional and technical services. On November 13, 2017, the Board approved the award of the agreement with Trillium USA Company LLC (Trillium) to install a fully operational hydrogen fueling station, provide operation and maintenance service, and deliver hydrogen fuel. The original agreement was awarded on a competitive basis and has been previously amended as shown on Attachment A.

The proposed Amendment No. 8 is to exercise the second option term of the agreement through December 31, 2024. Amending this agreement will increase the maximum cumulative payment obligation by \$625,049, bringing the total contract value to \$8,651,734 to continue services. Fuel charges, annual equipment lease fees, operations and maintenance, as well as other charges for the second option term will remain the same as negotiated in the original agreement. During the term of this agreement, Trillium has provided service in compliance with the performance standards set forth in the agreement.

Fiscal Impact

The project was approved in OCTA's Fiscal Year 2023-24 Budget, Operations Division/Maintenance Department, Account No. 2168-7720-D2108-F30 and is funded through the Local Transportation Fund.

Summary

Based on the information provided, staff recommends the Board authorize the Chief Executive Officer to negotiate and execute Amendment No. 8 to Agreement C-7-1577 with Trillium, in the amount of \$625,049, to exercise the second option term of the agreement from January 1, 2024, through December 31, 2024, for continued hydrogen station operation, maintenance, and hydrogen fuel delivery.

Attachment

- A. Trillium USA Company LLC, Agreement C-7-1577 Fact Sheet

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