

ALAMEDA-CONTRA COSTA TRANSIT DISTRICT



STAFF REPORT

MEETING DATE: 5/27/2020

Staff Report No. 20-212

TO: AC Transit Board of Directors
FROM: Michael A. Hursh, General Manager
SUBJECT: Hydrogen Station Maintenance Services

ACTION ITEM

RECOMMENDED ACTION(S):

Consider authorizing the General Manager to execute three-year single source contracts with two (2) one (1) year options with Messer LLC, one for hydrogen supply and the other for maintenance services associated with the District-operated hydrogen fuel station.

STRATEGIC IMPORTANCE:

Goal - Environmental Improvement
Initiative - Zero Emission Programs

The contracts will ensure the District is properly maintaining the fueling infrastructure and provide a reliable supply of hydrogen that supports the Zero Emission Programs.

BUDGETARY/FISCAL IMPACT:

Funding for both contracts is included in the Operations budget. The maintenance contract is \$325,963.00 per year with a total contract price not to exceed \$1,629,815.00. The fuel supply contract is \$2,162,497.00 for the first contract year and a total contract price not to exceed \$12,119,979.00.

BACKGROUND/RATIONALE:

For ten years, the District has operated hydrogen fueling stations at its East Oakland and Emeryville Divisions that have supported the operation of the zero-emission bus fleet of 13 VanHool hydrogen fuel-cell electric buses and, in 2019, an additional 10 New Flyer hydrogen fuel-cell electric buses. Both stations operate storage and delivery equipment, which is supplied and monitored by Messer LLC.

In December 2019, Messer LLC completed the station and equipment upgrade to the hydrogen infrastructure at the Emeryville Division 2. The station design at both divisions incorporates Messer components and telemetric monitoring equipment that requires proprietary parts along with specialized service technicians to maintain and operate the equipment. Each station utilizes compression and delivery equipment which is owned by the District, and the cryogenic storage tanks that supply the liquid hydrogen and nitrogen are rented through Messer. The existing equipment allows for the fueling of up to fifty (50) buses per day between both locations.

The local and regional hydrogen market is very limited leading to the current situation where vendors maintain and repair their own equipment and the stations they have built, thereby limiting competition in the market. The District is hopeful that with the California Air Resources Board (CARB) Innovative Clean Transit (ICT) ruling, new vendors will emerge in the next five years providing the opportunity for increased competition. The District's hydrogen fleet size remains unknown for the next several years and the rental of storage tanks allows for more flexibility during this period providing a cost-effective way to scale up capacity as needed. Suppliers offering tank rentals often will price the equipment based on a commitment from the client to utilize a tank for several years, which helps save costs of removal after a short period of use.

Any storage tank upgrade or change creates a period where the station will be out of service due to decommissioning of the old storage tank and installation of a new tank along with testing. Changing suppliers at this time will result in the interruption of hydrogen fueling operations at the Division. The interruption of hydrogen fueling will decrease the number of available buses for dispatch, therefore impacting service delivery to District riders.

It is in the District's best interest to keep the current vendor given this technology is still emerging with limited support, coupled with the fact that the District has experienced minimal downtime due to maintenance of the hydrogen infrastructure and zero downtime due to fuel supply issues. This has contributed to the success of the District's Zero Emissions Program; one that is considered a leader in the transit industry.

ADVANTAGES/DISADVANTAGES:

The advantage of awarding this contract is a seamless transition to continue receiving fuel to operate the hydrogen bus fleet, avoiding a disruption to service delivery, provide proper maintenance and repair to hydrogen stations; and it will allow for the District to scale up the zero emission infrastructure incrementally without committing capital funds to purchase equipment that could be undersized for the District's future service requirements.

Staff does not see a disadvantage with approving these contracts. Pursuing a new vendor would make transitioning to an alternate supplier more difficult until such time that the District owns the storage tanks that will support the final fleet composition and have the equipment or personnel required to work with the high-pressure compression and storage equipment.

ALTERNATIVES ANALYSIS:

Staff considered an open procurement for an alternative vendor; however, the local and regional hydrogen market is very limited leading to the emerging market. Additionally, removal of the current tanks at this time (owned by Messer) and the disruption of fuel supply to the District would be too high of risk. Further, a new supplier would also need the qualified repair staff and materials to properly maintain the assets.

Another alternative to the maintenance contract would be in-house maintenance of the hydrogen fuel stations; however, this is not recommended due to the liability and proprietary nature of this evolving technology.

PRIOR RELEVANT BOARD ACTION/POLICIES:

Staff Report 17-196a Contract award for upgrade of the hydrogen facilities at Division 2
Board Policy 465 - Procurement Policy

ATTACHMENTS:

None

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