

ALAMEDA-CONTRA COSTA TRANSIT DISTRICT



STAFF REPORT

MEETING DATE: 11/12/2020

Staff Report No. 20-437

TO: AC Transit Board of Directors
FROM: Michael A. Hursh, General Manager
SUBJECT: Application for CEC Zero-Emission Transit Fleet Infrastructure Grant

ACTION ITEM

RECOMMENDED ACTION(S):

Consider authorizing the General Manager or his designee to file and execute applications and funding agreements with the California Energy Commission (CEC) for the Zero-Emission Transit Fleet Infrastructure Deployment grant.

STRATEGIC IMPORTANCE:

Goal - Financial Stability and Resiliency
Initiative - Zero Emission Programs

Applying for these grant funds will assist the District in increasing fueling efficiency to support new zero-emission buses that will be delivered in 2023 and beyond.

BUDGETARY/FISCAL IMPACT:

The District is applying for approximately \$5 million towards a Division 4 hydrogen upgrade and resiliency project. If the project is awarded, the District will be required to provide a 25% in-kind match. The match can be fulfilled by the upcoming purchase of forty zero-emission buses, which was approved by the Board on June 10, 2020.

BACKGROUND/RATIONALE:

The California Energy Commission announced a \$20 million competitive grant solicitation to fund projects that will support the deployment of fueling infrastructure for medium and heavy-duty zero-emission transit fleets. Grants for the Large Fleet/Urban category are up to \$6 million or 75% of the project cost, whichever is less and require a minimum local match of 25%.

Staff is proposing to apply for grant funding to upgrade the hydrogen fueling station infrastructure at East Oakland, Division 4 (D4) and reconfigure D4's power generation equipment to enable the division to continue to power itself in the event of an outage. These two elements work together to enable the division to continue diesel and zero-emission bus service during power outage situations.

The upgrade of the hydrogen fuel equipment will be similar to what was recently implemented at Emeryville,

Division 2 (D2) . The project will expand the on-site liquid hydrogen storage capacity, replace the compression system with a cryogenic liquid hydrogen pump and upgrade older vaporizers with pressure vaporizers. The project also includes the replacement of some of the existing hydrogen station equipment at D4 nearing the end of its useful life, which will reduce repair and maintenance costs.

In addition to the hydrogen fueling upgrades, the project will enhance the power resiliency at D4 through the modification of the connections for existing solid-oxide fuel cell power generation equipment. The power generation equipment will be placed into a grid parallel configuration that will allow the division to power itself in the event of a power outage or shutdown. The project will also upgrade the current network infrastructure to achieve better cybersecurity and data integration for storing and managing the zero-emission fleet data.

Staff is recommending this project as it will score strongly in terms of project readiness and staff experience, among other criteria. There is only \$20 million available for the entire state, so there is likely to be a lot of competition for the funds.

ADVANTAGES/DISADVANTAGES:

The main disadvantage to applying for this grant is the level of staff time needed to apply and manage the grant and project if awarded. CEC grants require an extensive amount of detail and reporting. However, not applying would cause the District to forgo the opportunity of obtaining additional funds to improve and support the zero-emission program.

ALTERNATIVES ANALYSIS:

Charging infrastructure at Richmond, Division 3 (D3) was considered for this grant proposal. However, D4 supports a larger number of zero-emission buses compared to D3 and has a greater need for infrastructure upgrades. Staff has also identified other future funding opportunities that are better suited to implementing charging capabilities at D3.

Staff also discussed battery storage possibilities for D4 to provide backup for bus charging, but much more analysis is needed along with further design of the planned charging infrastructure before a viable project could be put together. The short timeline for this grant opportunity required staff to focus on more “turnkey” ready-to-go project ideas.

PRIOR RELEVANT BOARD ACTION/POLICIES:

SR 19-340b-Procurement of Forty (40) Forty-Foot Zero Emission Buses

ATTACHMENTS:

None

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