

ALAMEDA-CONTRA COSTA TRANSIT DISTRICT



STAFF REPORT

MEETING DATE: 5/24/2023

Staff Report No. 23-286

TO: AC Transit Board of Directors
FROM: Michael A. Hursh, General Manager/Chief Executive Officer
SUBJECT: Solicitation for On-site Power Generation Facilities

ACTION ITEM

AGENDA PLANNING REQUEST: ☐

RECOMMENDED ACTION(S):

Consider authorizing solicitations for on-site power generation facilities to support AC Transit's operating divisions.

Staff Contact:
Ramakrishna Pochiraju, Executive Director of Planning & Engineering

STRATEGIC IMPORTANCE:

Goal - Safe and Secure Operations
Initiative - Infrastructure Modernization

Authorizing these solicitation(s) will identify AC Transit's technical options and practical opportunities to provide resilient capacity for District operations while establishing a baseline to ensure that a long-term resilient power supply is available to support continued transit operations. The electrical grid supply is becoming more challenged as the demand for grid capacity continues to increase with the general expansion of electrification impacting all utility grid customers.

BUDGETARY/FISCAL IMPACT:

The initial solicitation will be to support the battery electric bus (BEB) infrastructure being deployed at the Oakland D4 facility. This solicitation will be funded by State of California Transit and Intercity Rail Capital Program (TIRCP) Funds, Regional/Local funds from the Bay Area Air Quality Management District (BAAQMD) Carl Moyer Program and Federal Transit Administration (FTA) funds.

BACKGROUND/RATIONALE:

It is critically important that AC Transit ensure that a long-term resilient power supply is available to support continued transit operations. The single largest factor in that equation is the electrical capacity required to support the deployment of battery electric buses pursuant to the Board approved Zero Emission Bus Transition Plan, mandated by the California Air Resources Board (CARB) Innovative Clean Transit (ICT) Regulation. While AC Transit's needs continue to expand, electrical power supply from the Pacific Gas and Electric (PG&E) grid is becoming more challenged as demand for grid capacity continues to increase with the

general expansion of electrification for all PG&E grid customers.

In April of 2022, staff consulted with PG&E to verify available grid capacity to support the installation of the battery electric bus chargers planned at the Oakland (D4) division. PG&E confirmed that there was adequate grid capacity available at that time. On November 7, 2022, PG&E informed AC Transit that PG&E would be unable to provide the requested capacity of 5.2MW as there was now only 120kW available on the grid. On November 29, 2022, PG&E confirmed that they were performing a large load study to confirm the capacity availability that might be made available to AC Transit. PG&E advised that this large load study would take five to six months to complete.

The results of PG&E's study were delivered on April 26, 2023. The results of the study indicated that no grid capacity could be made available in the first year of our need. In the second year, PG&E could make 60% of the power to service AC Transit needs available but it could only be used between the overnight hours of 9:00PM and 6:00AM, and would not be available during the daytime hours between 6:00AM and 9:00PM. Further, the study indicated that no additional capacity could be made available for the foreseeable future.

In order to ensure that a long-term resilient power supply is available to support continued transit operations, AC Transit must transition to some form of self-generation in the form of a local micro-grid that operated in either a grid parallel or a grid independent mode. These request for proposals (RFPs) will be released requesting proposed solutions to our challenges and will result in contract awards on a "best value" to the District based on utilizing existing funding.

ADVANTAGES/DISADVANTAGES:

Advantages of authorizing these solicitation(s) is that it will allow staff to continue moving forward with the timely implementation of the Board approved ZEB Transition Plan. Contractual agreements that result from these solicitations will maintain both the quantity and timeline detailed in the ZEB Transition Plan. This approach also provides staff with the ability to conduct a "proof of concept" approach with an initial installation limited in scope to servicing the Oakland (D4) BEB infrastructure deployment.

Staff is unable to identify any disadvantages to the issuance of these solicitations.

ALTERNATIVES ANALYSIS:

Staff considered two options to provide the required capacity specifically to support the current BEB infrastructure efforts at D4.

The first option was to utilize existing and future utility grid power, but after intensive analysis and the completion of a Large Load Study by PG&E, this option was determined to be insufficient and inadequate.

The second option, staff considered reducing the size of the BEB fleet supported daily by this power supply. Staff determined that this option was not feasible because it would delay the BEB implementation by at least one year and would then only be a short-term solution for a long-term issue. It would also prevent the ZEB program from achieving the goals established by the Board approved Zero Emission Bus Transition Plan.

PRIOR RELEVANT BOARD ACTION/POLICIES:

SR 19-072 - Consider authorizing the execution of documents with PG&E to participate in the Fleet Ready Program

SR 19-340a - Actions associated with 45 ZEB Implementation Plan

SR 20-224 - Consider Adopting Resolution 20-029 Zero Emission Bus (ZEB) Roll-out Plan

SR 20-380 - Consider approving the issuance for a bid for BEB Infrastructure

SR 20-380a - Consider approving the award of a firm-fixed price contract to ChargePoint

SR 20-013 - State of California Transit and Intercity Rail Capital Program (TIRCP) Funds

SR 20-144 - Regional/Local funds from the Bay Area Air Quality Management District (BAAQMD)

SR 22-319 AC Transit ZEB Transition Plan

BP 465 - Procurement Policy

ATTACHMENTS:

None

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