



ITEM ID: 2024-141-0

TRANSMITTAL DATE: March 1, 2024

MEETING DATE: March 8, 2024

TO: Contracts, Operations, Maintenance, and Safety Committee

FROM: Justin Fornelli, Chief, Program Delivery

SUBJECT: Cooperative Agreement No. 22-1002687 with the San Bernardino County Transportation Authority for Design, Development, and Testing of the Zero Emission Multiple Unit Passenger Rail Vehicle and Support Services for Hydrogen Related Infrastructure

Issue

Staff is seeking Board approval to execute a Cooperative Agreement with San Bernardino County Transportation Authority (SBCTA) to define roles, responsibilities, and funding in the amount of \$1,349,640.00 in support of the Zero Emissions Multiple Unit and Arrow Maintenance Facility Hydrogen Upgrade Project.

Recommendation

It is recommended that the Committee recommend the Board authorize the Chief Executive Officer to negotiate and execute Cooperative Agreement No. 22-1002687 between San Bernardino County Transportation Authority (SBCTA) and the Authority. The Agreement defines roles, responsibilities, and funding in the amount of \$1,349,640 for design, development, and testing support services of the Zero Emission Multiple Unit Passenger Rail Vehicle, and coordination for the implementation of the Arrow Maintenance Facility Hydrogen Upgrade Project.

Strategic Commitment

This report aligns with the Strategic Business Plan commitment of:

- **Advancing Key Regional Goals:** We will grow the role of regional rail in addressing climate change, air quality, and other pressing issues by advancing toward zero

emissions, making rail a compelling alternative to single-occupant automobiles and advancing equity-focused opportunities for all communities throughout Southern California. Introduction of the Zero Emissions Multiple Unit (ZEMU) will mark a milestone toward the future of zero emissions rail service in the Metrolink system.

Background

The Zero Emissions Multiple Unit (ZEMU) and Arrow Maintenance Facility (AMF) Hydrogen Upgrade are SBCTA-led projects to introduce the first hydrogen-powered train to North America. Following vehicle qualification testing and acceptance by SBCTA, the ZEMU will be operated in revenue service by the Authority. As the SBCTA project delivery team advances towards initiating AMF construction and vehicle testing, the Authority's continued support is needed. On October 20, 2021, SBCTA issued Work Order No. 9 under Cooperative Agreement No. 15-1001125 to provide funding for SCRRA staff costs on the project as well as for Positive Train Control analysis and evaluation of compatibility of the system between the DMU and the ZEMU by SCRRA. Cooperative Agreement No. 22-1002687 details further responsibilities as it relates to the entire ZEMU project.

Discussion

The ZEMU is currently at the Federal Railroad Administration's (FRA) Transportation Technology Center in Pueblo, Colorado undergoing initial testing. It is scheduled to arrive in San Bernardino in May 2024, where further testing will be performed on existing Authority railroad infrastructure.

The infrastructure required to support the operation of the ZEMU is also progressing simultaneously. The SBCTA Board awarded the contract to procure major electrical equipment in June 2023, and the contracts for the hydrogen fueling station and the AMF retrofit in November 2023 and December 2023, respectively.

Cooperative Agreement No. 22-1002687 provides a budget of \$1,349,640, fully funded by SBCTA, for Authority support on the ZEMU project. The Agreement was approved by the SBCTA Board of Directors on March 6, 2024.

Budget Impact

There is no budget impact as this is a Third Party funded Agreement.

Next Steps

Upon Board authorization, Cooperative Agreement No. 22-1002687 will be executed by both parties.

Prepared by: Kevin Bleich, Management Analyst I
Neil Brown, Director, Special Projects

Approved by: Justin Fornelli, Chief, Program Delivery