

To: Operations & Scheduling Committee

Date: August 28, 2026

From: Marcel Longmire, Director of Maintenance

Reviewed by: 

SUBJECT: Battery Electric Bus Update

Background:

In August 2025, the Board approved funding for a Battery Electric Bus (BEB) Battery Management System Upgrade Project. This project was intended to be a collaborative effort between Gillig, BAE Systems, and Xalt.

The primary objectives of the project were as follows:

- Upgrade the existing battery packs to higher-capacity batteries.
- Upgrade the charge controllers on each BEB to allow compatibility with a broader range of plug-in charging systems.
- Improve the overall reliability and sustainability of County Connection's BEB fleet.

At the time, staff believed this project would significantly improve fleet performance and provide long-term stability for the Authority's BEB program.

Summary of Issues:

Since Board approval, several significant developments have impacted the project.

In late 2025, Freudenberg e-Power Systems, the parent company of Xalt, ceased operations and closed Xalt. Prior to the closure, County Connection was able to purchase forty (40) XMP 76P battery sub-packs and related components through Gillig at a substantial discount. This purchase was made with the understanding that it would allow the Authority to build an inventory of replacement battery components and help support the existing fleet, given that the original battery upgrade project was no longer feasible.

After receiving the battery sub-packs, staff learned that the units require software programming before they can be installed and utilized on County Connection's coaches. With Xalt no longer available to provide technical support, staff was directed to Renewance, a company that has been managing battery-related support and recall work involving former Xalt products.

Renewance has completed an initial on-site evaluation of County Connection's fleet and is scheduled to return for additional diagnostic work. During their evaluation, it was discovered that Xalt had previously upgraded the battery software on County Connection's coaches. At this time, neither County Connection

nor Renewance has access to the proprietary software necessary to communicate with and program the replacement battery sub-packs.

Renewance is currently working to develop a workaround that would allow communication with the coaches and enable the programming of the replacement batteries. Until a solution is identified, the Authority's ability to utilize the newly acquired battery inventory remains limited.

In addition to battery-related issues, the Authority continues to experience intermittent communication failures between the fleet and the WAVE inductive charging system. Coaches may successfully charge for several route cycles and then unexpectedly lose communication with the charger, preventing charging operations from occurring.

Staff has been coordinating with WAVE to schedule an on-site diagnostic visit. However, the ongoing battery issues have complicated troubleshooting efforts, as both systems are closely interconnected.

These challenges have significantly impacted fleet availability. Currently:

- Four (4) of the Authority's eight (8) BEBs are out of service due to battery-related issues.
- Two (2) additional BEBs are out of service due to WAVE charging system issues.
- One (1) BEB is out of service due to an electrical short in the brake lights

As a result, seven (7) of the Authority's eight (8) BEBs are currently unavailable for revenue service.

Staff continues to work closely with Gillig, BAE Systems, Renewance, WAVE, and other partners to identify solutions and restore fleet reliability. While progress has been made in understanding the root causes of the issues, the closure of Xalt has created substantial technical and logistical challenges that continue to impact the Authority's ability to maintain reliable BEB service. Until these core foundational issues can be addressed, staff is reluctant to invest additional funds in the current battery electric bus fleet. Staff will continue to update the committee and Board as developments are made.

Financial Implications:

In August 2025, the Board authorized \$804,112 for the BEB Update Project, funded with a combination of FTA Section 5339 grant funds and TDA capital funds. The 5339 Grant funds require a 20% local match and may only be used for eligible expenses related to zero-emission vehicles, including vehicle purchases, components, associated equipment, and supporting infrastructure.

To date, \$270,880 has been expended for the forty (40) XMP 76P battery sub-packs and related components, ten (10) WAVE charger power boards, and WAVE repairs to on-property chargers. Of this amount, \$163,003 has been funded with 5339 grant funds, and the remainder with TDA capital funds. At this time, \$673,261 in 5339 grant funds remain available for expenditure on eligible zero-emission vehicle and infrastructure purchases.

Recommendation:

None. Information only.

Action Requested:

None. Information only.

Attachments:

None.