



Zero-Emission Bus 2023 Update



Metro is transitioning to a 100% zero-emission bus (ZEB) fleet. ZEBs have no tailpipe emissions – which means improved air quality and reduced greenhouse gas emissions – and provide a quieter and smoother ride for passengers. Metro’s commitment to transitioning to a zero-emission bus fleet allows Metro to further build on the health and environmental benefits transit brings to the region while improving the overall experience for customers. Metro is also modifying our bus garages with charging infrastructure to support zero-emission operations and training our workforce to prepare for this transition.

Metro’s transition to zero-emission buses supports one of the key pillars for our Strategic Transformation Plan – **Sustainability**. In 2023, Metro’s Board of Directors accelerated zero-emission buses goals:



Purchase only lower-emission and electric buses in the next bus procurement



Transition to 100% zero-emission bus purchases by 2027



Transition to a 100% zero-emission bus fleet by 2042



2023 Key Accomplishments

2023 was a significant year for the advancement of Metro's Zero-Emission Bus (ZEB) Program – including completing our first strategic Zero-Emission Bus Transition Plan, receiving the largest FTA Low or No Emission Vehicle grant in the country, and launching of the first two 60-foot battery-electric buses (BEBs) into revenue service.

Metro's first Zero-Emission Bus Transition Plan identifies a pathway to transition the fleet, facilities, and workforce to zero-emission operations by 2042. As part of the Transition Plan, Metro coordinated with the local electric utilities that serve our garages to explore the anticipated utility improvements needed to support the new fleets at each facility. Metro continues to work with the utilities to ensure power is provided to support battery-electric bus charging at facilities as they undergo conversion.

Metro was awarded a \$104 million FTA Low or No Emission Vehicle Grant to support the conversion of Cinder Bed Road Bus Division in Fairfax County, Virginia to a fully battery-electric bus facility, the procurement of battery-electric buses, and associated training.

The launch of Metro's first 60-foot BEBs is part of our first phase of deployment, a project that will include 12 battery-electric buses and overhead pantograph chargers at Shepherd Parkway Bus Division in Washington, DC. From the start of revenue service in November through the end of the calendar year, the first two BEBs drove more than 4,100 miles. In 2023, nearly 350 Metro employees, including training instructors, were trained to support the operations and maintenance of these electric buses and associated charging equipment.

Metro has begun to make its facilities ready to support BEBs. Design and construction are underway at Northern and Bladensburg Bus Garages in DC and planning work is underway at Cinder Bed Road. Metro's first Battery-Electric Bus Facility design criteria was developed to guide the design of facilities that will be used to store and operate battery-electric buses, helping to build safe and efficient infrastructure consistently across Metro's portfolio.

2023 Timeline of Accomplishments

2023

JAN

Broke ground on Northern Bus Garage, which will be Metro's first 100% ZEB garage.

FEB

Completed construction and installation of infrastructure at Shepherd Parkway to support pantograph charging equipment for Metro's first two BEBs.

Awarded contracts for charging equipment for Shepherd Parkway and ten 40-foot BEBs.

MAR

Completed and presented to the Board Metro's first ZEB Transition Plan.

Broke ground on Bladensburg Bus Garage, which will open with a 50% ZEB fleet.

Launched the Regional Zero-Emission Bus Subcommittee to coordinate with transit partners in the National Capital Region.

APR

Issued the five-year bus procurement request for proposals, which includes hybrids and BEBs (award expected mid-2024).

Board accelerated ZEB goals based on ZEB Transition Plan.

Completed the 40% BEB design for Northern Bus Garage and the 30% BEB design for Bladensburg Bus Garage. Resumed design work in late 2023 for both facilities following adoption of BEB Design Criteria.

JUN

Metro was awarded a \$104M FTA Low No grant for the conversion of Cinder Bed Rd Bus Division in partnership with Fairfax County, purchasing BEBs, and training.

The first BEB was delivered to Metro's Carmen Turner Facility to begin the commissioning process.

Metro's Design Control Board adopted Metro's first BEB Facility Design Criteria, to guide the design of Metro facilities that will operate BEBs.

AUG

Briefed Local 689 Union leadership, who represent employees at Shepherd Parkway, on Metro's ZEB plans.

OCT

Commissioned pantograph chargers – the first time Metro has used this type of equipment.

NOV

Completed an industry-leading BEB Fire Hazard Analysis and established a risk mitigation framework for BEBs.

The first two 60-foot BEBs entered revenue service in DC. The buses currently serve the W4 route between Anacostia and Deanwood Metrorail stations.