DEUSA Fleet Success Stories:

Greater Bridgeport Transit

Location / Fleet Type

Bridgeport, Connecticut

Heavy-duty battery-electric transit buses

Narrative

The Clean Transportation Coalition – Western Connecticut has maintained a strong working relationship with Greater Bridgeport Transit (GBT) since 2019, recognizing the agency's transition to cleaner transportation. In 2021, the Coalition conducted a listening session with GBT to better understand its priorities, challenges, and opportunities related to fleet electrification and sustainable transportation. The Coalition also partnered with GBT on a community transit ridership campaign designed to increase public awareness, ridership, and encourage the use of public transportation as a sustainable mobility option. In addition, GBT has participated in Coalition events, including the annual Fleet Leadership Awards, where the agency has been recognized as a valued regional partner committed to advancing clean transportation. Through continued communication and collaboration, the Coalition has strengthened its relationship with GBT and remains a trusted resource as the agency continues to advance its sustainability and fleet modernization efforts.

In June 2020, Greater Bridgeport Transit (GBT) launched Connecticut's first battery-electric transit buses into passenger service. Working with CTDOT, DEEP, and technical partners, GBT deployed two Proterra Catalyst battery-electric buses into revenue service and began gathering real-world operational experience with zero-emission transit technology. Over the next four years, GBT gained valuable insight into vehicle performance, charging operations, infrastructure requirements, and workforce development. The agency invested in charging infrastructure and personnel while navigating a rapidly evolving electric bus market. Following Proterra's bankruptcy in August 2023, GBT faced new challenges supporting both vehicles and charging equipment, yet the experience generated important lessons that continue to inform future planning. Today, GBT is preparing a long-term transition roadmap designed to support a move toward 100% zero-emission transit operations.

At a Glance

- ✓Connecticut's first battery-electric transit buses in revenue service
- ✓Initial deployment: 2 Proterra Catalyst buses (June 2020)
- ✓Expansion: 3 Proterra ZX5 buses ordered in 2022
- ✓Depot charging infrastructure and upgraded switchgear
- ✓Fleet operated from June 2020 through September 2024
- ✓Partners: CTDOT, DEEP, Center for Transportation and the Environment
- ✓Long-term goal: support transition toward a zero-emission fleet

Connecticut's First Electric Transit Buses Take the Road

When GBT introduced battery-electric buses into service in June 2020, it became the first public transit agency in Connecticut to place battery-electric buses into regular passenger operations. The deployment was designed not simply as a fleet purchase, but as an opportunity to evaluate electric transit technology under real-world operating conditions. As one of Connecticut's earliest adopters, GBT generated operational knowledge that helped inform future electrification planning throughout the state.

A Phased Approach to Transit Electrification

GBT approached electrification as a phased transition. The initial deployment introduced two Proterra Catalyst buses and supporting charging infrastructure. In 2022, the agency expanded its plans by ordering three additional Proterra ZX5 buses. This measured strategy allowed the agency to gain operational experience before pursuing larger-scale expansion, reducing risk while building institutional expertise.

Infrastructure Built for Growth

From the beginning, GBT recognized that successful electrification required investment in infrastructure alongside vehicle deployment. Depot charging equipment and upgraded electrical switchgear were installed to support both current operations and future growth. The upgraded infrastructure was designed to support charging for up to eleven electric buses, creating capacity for future expansion without requiring major electrical upgrades at every stage.

Four Years of Operational Learning

GBT operated its pilot electric bus fleet from June 2020 through September 2024. During that time, the agency learned a tremendous amount about the operational characteristics of battery-electric transit vehicles and invested in both infrastructure and personnel to support future expansion. GBT leadership noted that battery-electric bus technology evolved rapidly during the pilot period and that these developments continue to influence future planning efforts.

Navigating Industry Challenges

Proterra's bankruptcy in August 2023 created challenges associated with supporting vehicles and charging infrastructure. GBT has worked to address those challenges while evaluating future fleet strategies. One of the most important lessons from the deployment is the value of contingency and resiliency planning. Whether implementing electric buses or any major system, agencies benefit from planning for redundancy, flexibility, and long-term support pathways.

Steven C. DeMichele, CEO of Greater Bridgeport Transit; Christine Michaels, Special Assistant to the CEO and Clerk of the Board

Outputs & Outcomes

- ✓ Connecticut's first battery-electric transit buses entered revenue service.
- ✓ Four years of operational experience were generated.
- ✓ Charging infrastructure and workforce capabilities were expanded.
- ✓ Valuable lessons were developed regarding vehicle operations and future planning.
- ✓ The deployment helped inform future electrification efforts.
- ✓ A foundation was established for long-term zero-emission transition planning.

Best Practices & Lessons Learned

- ✓ Start small and scale strategically.
- ✓ Build infrastructure alongside vehicle deployment.
- ✓ Invest in workforce readiness.
- ✓ Maintain flexibility as technology evolves.
- ✓ Consider manufacturer stability and long-term support.
- ✓ Incorporate contingency and resiliency planning.
- ✓ Use pilot programs to generate operational data.
- ✓ Design infrastructure with future growth in mind.

Looking Ahead

GBT's deployment of Connecticut's first battery-electric transit buses marked the beginning of a longer electrification journey. With years of operational experience, established charging infrastructure, and a growing understanding of battery-electric transit technology, the agency is well positioned to evaluate future fleet opportunities. As Connecticut continues advancing toward its statewide zero-emission transportation goals, the lessons learned through GBT's pioneering deployment will help shape the next generation of transit electrification efforts.