

CapMetro

How CapMetro Used Overhead Charging to Help Deliver 10 to 15-Minute Service

Customer Overview

Capital Metropolitan Transportation Authority (CapMetro) is the public transit agency serving Austin, Texas and the surrounding Central Texas region. As part of Project Connect, the voter-approved investment to transform Central Texas transit, CapMetro introduced two new Rapid lines, 800 Pleasant Valley and 837 Expo Center, to extend high-frequency service into areas of east Austin that had been historically underserved by transit. The buildout was supported by a \$65.6 million FTA Small Starts grant covering roughly 60 percent of project cost and represents the latest completed project delivered through Project Connect.



Business Challenge

A Frequency Target That Depot Charging Alone Couldn't Support

CapMetro planned to electrify its bus fleet on Rapid 800 and 837, with an ambitious goal: 10 to 15 minute peak frequency on both lines. This service level depends on having enough buses in rotation and enough charging capacity to keep them there. While CapMetro initially considered depot charging for these routes, buses charged only overnight at a depot get one shot at a full charge before a long day on the road. For two Rapid lines aiming at 10 to 15-minute headways, that math didn't work: more buses needed to be in service longer, with less room for a vehicle to sit out a shift to recharge. CapMetro needed a way to extend usable range mid-route, not just at the start and end of the day, and it needed that capability to be dependable enough to build a frequency commitment around.



Solution

Overhead Charging Built for a Working Route

The plan called for overhead charging at both line-ending park-and-ride facilities: Expo Center Park & Ride, the terminus of Rapid 837 in northeast Austin, and Goodnight Ranch Park & Ride, the terminus of Rapid 800 in southeast Austin. Each site needed all systems to work together, and each needed to interface cleanly with the specific buses running the route. As Dave Kubicek, CapMetro's EVP of Capital Construction, Engineering and Design, framed the challenge, "The hard part wasn't any single component. It was making charging, distribution, management, safety systems, and the bus itself function as one coordinated system across multiple vendors."

Pantograph Charging at Both Line Terminals

Camber, working with hardware partner Power Electronics and other integration partners, installed overhead pantograph charging at both park-and-ride terminals at Expo and Goodnight Ranch. Buses pull into a charging bay at the end of the line, the pantograph lowers automatically onto the roof-mounted receiver, and the bus tops up before heading back out on its next run, with no cables to plug in and no driver downtime beyond the charge window itself.

A Phased Rollout, Not a Single Flip of the Switch

Camber and CapMetro brought the system online in stages. Kubicek described the approach as calibrating a single charger unit completely before replicating the configuration across the rest of the bays, then running a final load test with all units charging simultaneously to confirm the system held up under real conditions before it carried live service. That phased approach, paired with weekly and then daily coordination meetings as launch approached, let the two teams catch integration issues while they were still isolated to one unit instead of surfacing across the whole terminal.

Depot Charging as the Foundation Underneath

The on-route charging at Expo Center and Goodnight Ranch sits on top of a broader partnership. Camber also supplies and maintains the charging system at CapMetro's primary bus depot, comprising two 1,440 kW Camber Charging Systems and 48 Camber Industrial Dispensers capable of charging up to 48 buses simultaneously, along with Camber's charger and energy management software and remote diagnostics. That depot capacity, combined with on-route opportunity charging, is what can let CapMetro treat Rapid 800 and 837 as fully electrifiable routes rather than routes that would need to lean on diesel indefinitely.



Results

Achieving 10-Minute Service

In June 2026, CapMetro reached the capability to bring both Rapid 800 and Rapid 837 to full 10 to 15-minute peak frequency, alongside the opening of the completed Expo Center and Goodnight Ranch park-and-ride facilities. CapMetro credits the added charging capacity at both terminals as what helps allow the agency to put more zero-emission vehicles into service on these corridors, when fleet availability allows.



"Instead of a typical bus holding eight hours of charging, that goes out to twenty to twenty-two hours with overhead charging."

Andy Skabowski, Chief Operating Officer & EVP, CapMetro

That extended range window is the operational payoff of on-route charging: a bus no longer depends solely on what it picked up overnight at the depot. It can top up between runs and stay in rotation for most of the service day, which is what makes a 10 to 15-minute frequency commitment sustainable rather than aspirational.

For CapMetro, uptime is the metric that matters, not just the hardware itself. Every successful pantograph connection is a bus that stays on schedule, which is the same standard Camber holds itself to across every deployment.

Looking Ahead

Skabowski's advice to other agencies considering a similar path is to bring a charging partner in early. In his words, "Inviting a partner like Camber in as soon as possible means they will be there for the entire journey, not just the installation." Camber's relationship with CapMetro also illustrates the throughline in its approach across verticals: the goal is never the charger itself; it's a bus that's ready to run. Whether that means 48 simultaneous dispensers at a primary depot or a single pantograph dropping onto a bus roof at the end of a Rapid line, the measure of success is the same: was the bus charged and in service when the schedule needed it to be.

