



[Home](#) > [Electric Bus Pilot Program](#) > [Electric Bus Pilot Program](#)

## Electric Bus Pilot Program

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Say hello to Iowa's very first electric buses! DART is introducing seven all-new, all-electric buses to our fleet. These zero emission buses are gas free and run on batteries powered by renewable energy provided by MidAmerican Energy.

The buses are part of a pilot project to test how the zero emission vehicles will operate in Greater Des Moines. The buses were made possible thanks to a partnership with MidAmerican Energy Company who provided the local match for DART's Low- or No-Emission grant application with the Federal Transit Administration.

### DART Electric Bus Unveiling



Check out more photos from the unveiling event [here](#).

### **Meet the Fleet!** ▶

Clean as a whistle. Quiet as a whisper. Batteries are included on our all-new, all-electric buses.



## Why Electric? ▶

DART electric buses are clean, quiet and connected.

- **CLEAN** – with their zero-emission drive, the Proterra Catalyst bus has a 100% electric propulsion system. Each time an electric bus replaces a diesel bus, 230,000 pounds of CO<sub>2</sub> are avoided each year. That is the equivalent to planting 5,000 trees!
- **QUIET** - without a combustion engine on board, riders can enjoy a quieter experience aboard the electric bus, and the wider community benefits from reduced noise pollution. We hear the buses are 50% quieter than their diesel counterparts.
- **CONNECTED** – with just one charge, DART's electric buses can travel an estimated 230 miles. At the end of each day, they need to plug and charge. Did you know you can plug in while riding? Each seat has a USB port to keep you connected.

Other benefits:

While electric buses cost more than a diesel bus, there is a significant savings in operating and maintaining these vehicles. Industry estimates suggest there is a 78% reduction in fuel cost and 18% reduction in total cost of ownership. Total cost of the vehicle is something DART will be evaluating as part of the pilot project. Thanks to federal grant programs, such as the FTA Low- or No-Emission grant and the EPA DERA grant, and financial support from MidAmerican Energy Company, DART was able to purchase these buses without incurring any additional cost above and beyond what it was scheduled to pay in replacement diesel buses.

Learn more about the benefits of electric buses [here](#).

## Testing the Technology ▶

DART will spend the first 12 months closely monitoring and evaluating how the buses perform both individually and against their diesel counterparts. Key performance indicators DART will monitor include:

- Range monitors how far the vehicles will travel on a full charge. We will also measure what factors affect the range of the vehicle and how we can manage these factors to maximize range and minimize expense.
- Down time, which is the amount of time a bus is not operational due to maintenance.

- Cost of preventative maintenance. With 30% fewer parts, the electric buses should need less maintenance and also experience less brake wear due to the braking system.
- Fuel cost and energy expense.
- Long-term viability of the carbon fiber composite body. Normal bus bodies corrode and rust over time, typically in 13–15 years.

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