DEUSA Fleet Success Stories: Lafayette Sanitation Department

Location: Lafayette, Indiana
Fleet type: Heavy-Duty Electric Trash Trucks

Narrative: The Lafayette Sanitation Department has become a model for municipal innovation in sustainable transportation with the introduction of its first fully electric refuse truck. Through participation in the GOEVIN initiative and collaboration with Drive Clean Indiana, the department has taken a major step toward reducing emissions, improving fleet efficiency, and setting an example for clean municipal operations throughout the state.

The electric trash truck, deployed in early 2025, represents a milestone in Lafayette's ongoing efforts to modernize its fleet and transition to cleaner technology. The vehicle was acquired through support from Indiana's Volkswagen Environmental Mitigation Trust Fund, which provided grants for projects that replace diesel-powered vehicles with zero-emission alternatives. The new electric refuse truck offers both operational and environmental advantages, enabling the department to deliver essential city services while significantly reducing its carbon footprint.

Capable of operating through an entire workday on a single charge, the truck provides the same functionality and performance as traditional diesel models while eliminating tailpipe emissions. The vehicle features a high-capacity battery system designed to handle the demanding stop-and-go nature of sanitation routes, ensuring reliable performance for daily waste collection operations. Additionally, the department installed a dedicated charging station at its public works facility, allowing the truck to recharge during off-peak hours and minimize energy costs.

Outputs & Outcomes: The environmental impact of this investment is substantial.

1. The transition to electric waste collection is estimated to reduce greenhouse gas emissions by several tons per year and eliminate the consumption of thousands of gallons of diesel fuel.
2. In addition to these environmental benefits, the city anticipates notable cost savings over the vehicle's lifetime due to lower fuel and maintenance expenses.
3. The reduction in noise pollution has also been recognized by residents, who appreciate the quieter, cleaner operation of the electric truck in their neighborhoods.

Best Practices & Lessons Learned: This project aligns closely with the State of Indiana's broader sustainability goals and supports the GOEVIN initiative's mission to drive infrastructure, awareness, availability, and adoption of electric vehicles statewide. Lafayette's leadership in adopting electric sanitation vehicles not only supports state and federal clean transportation priorities but also strengthens the city's reputation as an early adopter of forward-looking technology.

Looking ahead, the Lafayette Sanitation Department plans to continue evaluating the performance and cost benefits of the electric truck with the goal of expanding its electric fleet in the future. Data collected from daily operations will help the city identify additional routes suitable for electrification and inform future funding applications. The department also intends to share its experiences with other municipalities interested in implementing similar projects, promoting the benefits of clean fleet technology across Indiana.

In conclusion, the Lafayette Sanitation Department's adoption of an electric refuse truck underscores the city's commitment to innovation, environmental stewardship, and community well-being. This initiative reflects a practical and forward-thinking approach to municipal service delivery—one that prioritizes cleaner air, fiscal responsibility, and a sustainable future for Lafayette residents.