



CPower

Case Study

Electrification-as-a-Service Leader Delivers Grid Value, Community Benefits, and Operational Excellence

A leading electrification-as-a-service provider supports school districts in transitioning to electric bus fleets while generating new revenue streams, reducing energy costs, and enhancing grid reliability. Through participation in demand response

and leveraging CPower's EnerWise® Optimization, the organization helps grid operators maintain system stability during periods of peak demand — without compromising safe, reliable student transportation.

“Flexibility is critical. Our first priority is ensuring electric buses maintain sufficient charge to complete morning and afternoon routes. Beyond that, we work with customers to strategically deploy fleet assets into demand response programs with CPower at optimal times, ensuring operational needs are met while maximizing financial returns.”

— Director of Energy Strategy Optimization, Electric Fleet Operator



Mobile Microgrids Drive Grid Reliability Through Load Flexibility

The organization leverages load flexibility to deliver meaningful grid value. Through CPower, the company participates in multiple grid services programs—including capacity, energy, and ancillary services—and practicing peak shaving through intelligent charging management, the fleet reduces demand during system peaks and helps stabilize the grid.

With about a dozen active fleet sites across multiple school districts, the electric bus depots collectively function as distributed, flexible energy resources. This flexibility is increasingly important as renewable energy adoption accelerates and electricity demand grows, making real-time balancing of supply and demand essential to grid resilience.

Leading the Charge in Vehicle-to-Grid (V2G) Innovation

Electric bus fleets represent some of the largest controllable loads within their local communities. By adjusting charging schedules and responding to grid events, the organization supports reliability during extreme weather and grid emergencies—benefiting residents, businesses, and critical infrastructure.

The fleet operator is also advancing vehicle-to-grid (V2G) capabilities. In select regions, electric buses can export energy back to the grid,



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— Director of Energy Strategy Optimization

with charging and discharging automatically managed by utilities as part of virtual power plants (VPPs). Over several years of operation, the fleet has successfully returned tens of megawatt-hours of energy to the grid.

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— **Director of Energy Strategy Optimization**

Beyond technology deployment, the organization actively collaborates with regulators and industry stakeholders to expand V2G programs and establish frameworks that recognize the grid value of electric fleets.

Advancing Sustainability and Operational Excellence

The fleet operator’s model combines environmental stewardship with operational reliability. Electrified transportation reduces emissions while supporting broader grid decarbonization goals, all while maintaining dependable service for students and school districts.

Internally, energy and operations teams work closely to optimize charging strategies, educate stakeholders, and ensure grid participation never interferes with transportation schedules. Automation is central to this approach—grid events are triggered automatically, including during overnight hours, eliminating the need for manual intervention.

Designed for scale, the platform allows new sites and grid programs to be added seamlessly as opportunities arise.



Looking Ahead

Success in grid flexibility programs depends as much on collaboration as it does on technology. Education, stakeholder alignment, and trust are foundational to participation. By combining automation, data-driven optimization, and operational safeguards, the organization has built a reliable, repeatable model for integrating electric fleets into grid programs.

These efforts help reduce the risk of outages during critical periods and strengthen community resilience. Looking ahead, the electric fleet operator will continue working with CPower to adapt energy strategies to an evolving market, advancing sustainability and resilience for the future.



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cpowerenergy.com

1001 Fleet Street, Ste 400
Baltimore, MD 21202