

Electric on patrol: ASU Police put EVs to the test

6-month pilot to examine feasibility of using electric vehicles for frontline operations

By Amanda O'Halloran, ASU News
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What does the future of police patrol look like, and can it be electric?

The [Arizona State University Police Department](#) is putting that question to the test with a six-month pilot program that places two full-size electric patrol trucks into 24/7 frontline service on the Tempe campus. The initiative will evaluate whether electric vehicles can meet the performance, durability and operational demands of modern campus policing.

The pilot reflects ASU's broader commitment to innovation and sustainability and could help inform the next generation of law enforcement fleets nationwide.

Expanding a growing electric fleet

This is not the department's first step toward electrification. ASU Police already operates electric motorcycles and e-bicycles, as well as two electric Chevrolet Blazers and a Ford F-150 Lightning. Those vehicles are primarily used for administrative support services such as investigative follow-up and intercity travel by non-patrol officers.

The new pilot will expand the use of electric vehicles into frontline patrol operations.

The department recently added two full-size electric trucks, a Ford F-150 Lightning and a Chevrolet Silverado EV, to its fleet. Each vehicle has been outfitted with standard patrol equipment, including emergency lights and rumble sirens, mobile data computers, radios, first-responder medical kits and automated external defibrillators.

The F-150 Lightning has also been equipped with updated department graphics and a single-person detainee transport compartment, giving it the appearance and functionality of a traditional patrol vehicle.

Real-world conditions in Arizona heat

Over the next six months, officers will operate the electric trucks around the clock alongside the department's hybrid patrol vehicles. The trucks will respond to calls for service, conduct traffic stops and undergo continuous evaluation in daily patrol operations.

"How does the vehicle handle the additional power draw from patrol equipment, and how does that affect overall performance? Can it keep up with its gasoline-powered counterparts? Will it hold up in the Arizona heat?" Cmdr. Tony Momon said. "These are all questions we are looking to answer. We'll be evaluating durability, battery performance and range, as well as overall operational readiness."

Arizona's extreme summer temperatures present a unique testing environment, offering valuable insight into how electric patrol vehicles perform in one of the nation's most demanding climates. Being on the ASU campus offers another unique testing environment with frequent stop-and-go traffic, a high level of pedestrian and bicycle traffic, large-scale events and a high-visibility environment, creating operational demands that closely mirror those of a small city.

Infrastructure and response readiness

Logistics are a critical part of the pilot.

Unlike gasoline-powered vehicles, the electric trucks require approximately 30 to 60 minutes to recharge using fast-charging technology. While ASU maintains numerous electric vehicle charging stations across campus, the Police Department installed two Level 3 fast chargers at the station to support uninterrupted patrol operations.

"Our priority remains being a service-oriented police department, and our response times must stay at the highest level," Chief John Thompson said. "The tools and technology we integrate must enhance our response capabilities and build upon the exceptional service we provide. Patrol vehicles, like anything else our officers use, are tools, and those tools need to be ready on a moment's notice."

The department will closely monitor how charging schedules, shift rotations and call volume affect operational efficiency.

Evaluating cost and sustainability

Beyond performance, cost efficiency is another key consideration.

While electric vehicles generally carry a higher up-front purchase price, they often require less routine maintenance than gasoline-powered vehicles. EVs do not require oil changes or spark plug replacements, and regenerative braking systems can extend the lifespan of brake components.

"The opportunity to adopt new technology that offers potential cost savings is a significant advantage and one that deserves careful evaluation," Thompson said. "This trial gives us the opportunity to explore that. We must be good stewards of our budget, as these funds come directly

from the university.”

The department will compare fuel costs, maintenance expenses and overall life-cycle costs with traditional patrol vehicles.

Shaping the future of patrol

If the pilot proves successful, ASU Police could expand the use of electric patrol vehicles and provide a model for other agencies exploring fleet modernization.

At ASU, sustainability and service are not competing priorities. Rather than viewing environmental responsibility and operational performance as competing priorities, the department hopes to demonstrate that innovation can strengthen both.

As the six-month test unfolds, ASU Police will gather data, evaluate performance and determine whether electric patrol vehicles can become a permanent part of their frontline fleet, helping define what the future of campus policing looks like.

This story originally appeared on [ASU News](#).

Main image



The ASU Police Department is launching a six-month pilot program that deploys two electric patrol trucks, like the Ford F-150 Lightning above, full time to evaluate whether electric vehicles can meet the demands of modern policing while reducing long-term costs. Photo by Charlie Leight/ASU News

Gallery



ASU Police Lt. Daniel Trakes spends part of his shift driving through the Tempe campus in the department's new electric Ford F-150 Lightning, which features updated department graphics.



Trakes moves cones in the "frunk" (front trunk) as he prepares for his shift. The Ford F-150 Lightning and other fully equipped electric vehicles will mainly operate on the Tempe campus, allowing officers to directly compare performance, reliability and maintenance needs with those of the department's current hybrid fleet.



The Ford F-150 Lightning has been equipped with a single-person detainee transport compartment, giving it the functionality of a traditional patrol vehicle.



Each vehicle has also been outfitted with standard patrol equipment, including emergency lights and rumble sirens, mobile data computers, radios, first-responder medical kits and automated external defibrillators.