

ELECTRIC POLICE CARS = SMART INVESTMENTS

Electric vehicles (EVs) have clearly demonstrated lower operating costs, superior handling, quick acceleration and less vehicle downtime for police departments across the country.

The report ***Making the Case for Electric Police Cars*** shows that **Police EVs have saved taxpayers over \$5,000 per year, per car**. The Inflation Reduction Act of 2022 provides an added incentive of \$7,500 available as a direct payment to municipalities, per eligible vehicle purchased.

While most police department experiences have been with Teslas, the Model Y is replacing the Model 3, a Ford Pro Mustang Mach-E became available in 2022 and a Chevy E Blazer SUV designed for police use is expected in 2023. More options and availability will fuel the use of electric vehicles by police departments.

COST SAVINGS

There are significant cost savings in switching from traditional internal combustion engine (ICE) police vehicles to electric vehicles (EVs).

- EVs have a **lower total cost of ownership** by providing significant savings to taxpayers, in vehicle maintenance and fueling. Police Departments report the higher initial EV cost has been recovered in the first or second year, *before the new \$7,500 Federal incentives*.
- EVs **do not require oil changes, exhaust or transmission repairs**, plus regenerative braking reduces the wear on the conventional brakes while recharging the battery.
- EVs significant fuel cost savings are due to being **three times more efficient** plus the cost of electricity is about half that of gasoline.



PERFORMANCE & SAFETY

EVs offer **superior handling, quick acceleration, silence, less downtime, cleaner air** and, for some, a 5-Star safety rating. Superior handling derives from the low center of gravity in the undercarriage which reduces rollover potential. The direct torque provides smooth, quick acceleration. With significantly fewer parts, EVs need fewer trips to the mechanic which results in less vehicle downtime. The police department in Fremont, CA reported **"....an average of 27 fewer days of downtime per year..."**.

HEALTH & ENVIRONMENTAL IMPACT

EVs provide a healthier and more comfortable environment inside and outside the vehicle with **no engine noise or exhaust**. The **lack of noise while idling** makes communications easier. The absence of toxic carbon monoxide and other exhaust gasses improves air quality for officers and others. Burning a gallon of gas releases roughly 19 pounds of CO₂, a major contributor to the dangerous warming of our planet.

LOCATION

DETAILS

OUTCOME

Bargersville, IN

The police chief was looking for cost savings to address hiring needs in 2018. The **\$6,000 savings in year one for a Tesla 3 vs the Dodge Charger quickly offsets the initial added cost of the Tesla and charging equipment.**

The Tesla has a cost of ownership of **\$0.37/ mile vs the \$0.65/ mile** for the Dodges, excluding sale of used vehicles. The department now has seven EVs with plans for more since **they save about \$490/month** vs the internal combustion engine (ICE) cars.

Westport, CT

The police chief reported **environmental concerns, superior performance and crash ratings, and its collision avoidance technology** motivated the town of Westport to purchase a Tesla Model 3 in 2019.

Although the retrofitted EV cost \$7,100 more than a retrofitted Ford Explorer, **they recovered that difference - along with an additional \$1,200 - in the first year.** In year two, **the savings was \$6,100.** The department noted that the Tesla's 310 mile range was sufficient for two shifts per day.

Windham County, VT

When the Sheriff was ready to replace a vehicle in 2020, the **shorter lead time for a Tesla Model 3** persuaded him to go electric. The EV was upfitted by a firm in Hudson, NH and a Level 2 (240 volt) charger was installed by a local electrician.

The sheriff reports that, "we were **measuring 5 cents per mile traveled for fuel cost compared to 26-28 cents for an ICE vehicle** with similar duties, at \$2.41 a gallon."

Sykesville, MD

In 2022, the police department in this town put a Tesla Model Y into service. The Chief reports that **after nearly one year of operation, they were achieving the projected savings,** despite utilizing a 3rd party's relatively expensive level 3 charger.

They have **ordered a Ford F-150 Lightning pickup that they plan to use for administrative purposes.**



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Clean Energy NH's mission is to promote clean energy and technologies through education and advocacy for a stronger economic future for all Granite Staters.

The **Monadnock Sustainability Hub** is the region's catalyst for climate solutions, strengthening the sustainability and resilience of our region by working collaboratively to reduce greenhouse gas emissions and reach 100% clean energy.