



Westport Police Tesla Model 3 Financial Analysis

The Westport Police purchased a Tesla Model 3 in December 2019, fully customized it for law enforcement, and put it into service in February 2020 as a pilot program. This first-in-the-nation Tesla Model 3 squad car is being celebrated at its one-year anniversary for exceeding performance, cost savings and environmental benefits estimates.

Westport Police Tesla Model 3 Police Cruiser both recoups the purchase price premium and saves money in the first year.

- After four years the Tesla will have saved enough money to buy another Tesla.
- Each EV avoids emission of over 23 tons of CO₂ per year and saves \$8763 in environmental and health costs.
- There is a \$12,582 savings in fuel alone after four years from using electricity to power the vehicle.
- Reduced maintenance. Regenerative braking means that the engine slows the car and recaptures some of the kinetic energy, replenishing the battery and reducing wear on the friction brakes. It is one example of how an EV saves on maintenance. Other examples are no oil changes, spark plugs, transmission, alternator, water pump, or catalytic converter.
- Even during the winter months, the vehicle was able to consistently run two consecutive patrol shifts without needing to be recharged, and there were no operational issues related to charging and battery use.

There was a \$15,300 differential in the purchase price of the Tesla vs. a Ford Explorer, which has been the workhorse of the fleet. The purchase price differential was recouped in the first year due to reduced customization and lower operating costs. All of these have been analyzed in detail.

Westport PD is exploring purchasing another Model 3, and while it would not receive first mover discounts that benefited the pilot vehicle, **it's still projected to recoup the price premium in year one** due to much lower customization, maintenance, and fueling costs.

The cost of buying, customizing, and one year of ownership of the pilot Tesla was \$68,700 and is projected to be \$85,100 for a future Tesla Model 3. This compares to

\$86,300 for the Ford. Due to the customization discounts, this was a no-lose situation for the pilot vehicle. But the financial case remains strong even for a future Tesla.

<https://evclubct.com/vehicle-comparison-costs-by-category-year-1-cash-basis/>

By year four, given the lower cost of running an EV, the total cost of ownership price tag of the Tesla Pilot is projected to be \$79,400, a future Tesla is \$95,800, and the Ford is \$120,200.

<https://evclubct.com/vehicle-cost-comparison-year-4/>

None of these figures considers the projected differential in service life. The Ford has a documented service life of four years according to the Westport Police. Based on the first year of operations, the Tesla is expected to have a service life of six years. If we amortize the fixed costs (purchase and customization) of the vehicles, the savings are considerably greater.

After four years, the savings on a cash basis for the Tesla Pilot are \$41,000 and \$24,000 for a future Tesla.

<https://evclubct.com/tesla-pilot-vs-ford-ice-savings/>

If the amortization is incorporated, there is a saving of \$63,000 for the Tesla Pilot and \$52,000 for a future Tesla.

<https://evclubct.com/tesla-next-vs-ford-ice-savings/>

There are likely additional savings for any future Teslas that are not included in this analysis. Beginning with 2021, Tesla began adding heat pumps to its vehicles, saving energy during the cold-weather months. There is also the possibility of further customization economies to be harvested from the Tesla tech.

This analysis was audited by the Town of Westport.

Getting the Model 3 ready to deploy as a fully outfitted squad car has required considerable cooperation from Tesla. Chief Foti said, "Tesla has been a great partner, including re-coding where necessary. We would not have been able to do things like wire the electronics into the large battery or access the car's computer without their help."

There have also been non-financial benefits. The car's catlike alacrity enables an officer to quickly overtake a moving suspect's vehicle, which reduces the risk to the driver, officer, as well as other vehicles and pedestrians.

Based on data from FuelEconomy.gov and Climatic Change Journal, a single EV police vehicle, over the course of one year, will save 23.5 tons of CO2 emissions and avoid \$8763 of health and environmental costs.

For more information, please refer to this [blog post](#).

About the EV Club of CT – The EV Club promotes adoption of electric vehicles by being an information source and engaging in advocacy. The club is a consumer-facing organization but also works with legislators and government officials.

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