



# LOCHBUIE POLICE

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## TESLA

Preliminary research for use as a patrol vehicle

August 19, 2020

The Lochbuie Police Department is conducting research into the feasibility of the Tesla Models 3 and Y for their use as a patrol vehicle.

The main purpose of this research is due to significant cost savings from fuel and vehicle maintenance. The idea was brought to light by articles in Government Fleet magazine here....

[https://www.government-fleet.com/10119989/ind-police-departments-tesla-model-3-sedans-bring-roi?utm\\_source=email&utm\\_medium=newsletter&utm\\_campaign=20200709-NL-GF-PoliceFleet-BOBCD200703006&omdt=NL-GF-PoliceFleet&omid=1000548144&oly\\_enc\\_id=7566E3196245E8R](https://www.government-fleet.com/10119989/ind-police-departments-tesla-model-3-sedans-bring-roi?utm_source=email&utm_medium=newsletter&utm_campaign=20200709-NL-GF-PoliceFleet-BOBCD200703006&omdt=NL-GF-PoliceFleet&omid=1000548144&oly_enc_id=7566E3196245E8R)

and here....

[https://www.government-fleet.com/346368/connecticut-town-buys-a-2020-tesla-model-3-squad-car?utm\\_source=email&utm\\_medium=newsletter&utm\\_campaign=20191212-NL-GF-PoliceFleet-BOBCD191206012&omdt=NL-GF-PoliceFleet&omid=1000548144&oly\\_enc\\_id=7566E3196245E8R](https://www.government-fleet.com/346368/connecticut-town-buys-a-2020-tesla-model-3-squad-car?utm_source=email&utm_medium=newsletter&utm_campaign=20191212-NL-GF-PoliceFleet-BOBCD191206012&omdt=NL-GF-PoliceFleet&omid=1000548144&oly_enc_id=7566E3196245E8R)

Tesla has become much more affordable with the recent introduction of the Model 3 Sedan which has a base price of \$35,000 and the Model Y Crossover starting at \$49,900. These price points make Tesla competitive in the Police vehicle market. The 2020 Ford Police Interceptor cost is about \$38,000. The 2020 Police Chevrolet Tahoe costs about \$52,000.

It is estimated that the department could save approximately \$3,500 per year, or \$17,500 over the 5 year lifespan of a patrol car with the Tesla versus a normal combustion engine vehicle. These costs are calculated based upon fuel and maintenance costs throughout the year. A typical vehicle has approximately 4000 moving parts, whereas this vehicle only has approximately 400 moving parts, which should relate in reduced maintenance downtime for the vehicle. Since the Tesla does not contain a combustion engine, there is no oil (except in the sealed differential), gears or a traditional transmission maintained. From our understanding, the only general maintenance needed is suspension, brakes, electronic system, and battery.

The cost to up-fit all of the necessary police equipment should be relatively the same cost as other patrol vehicles, with the exception of the cage/divider between the front and back seats. This will have to be custom made to fit whereas other police vehicles have standard cages that are made for them. This cost should be between \$500 and \$1,000 more. Another added cost will be the need to install a 220v electric service to the department parking lot so that we can charge the vehicle. While it will charge on a normal 110v outlet, the charge time is lengthy.

The performance of the Tesla also makes it attractive as use for a patrol car, especially for use as traffic control on the I-76. The vehicles go 0 to 60 in 3.4 to 5.3 seconds depending on the battery



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size. This performance would allow the officer to quickly get up to speed on the interstate and catch up to an offender.

One of the cons is that both the Model 3 and Model Y are a mid/small-size vehicle. They are comparable size to the Chevrolet Impala (no longer manufactured for police use) police vehicles we currently have in our fleet. There is also a concern about leg room space for the rear seats.

We will soon be getting a Model 3 from Tesla for an extended test drive that will last a couple of days. During this time we will have uniformed officers drive it to see if the seating can comfortably accommodate an officer wearing equipment. We will also take the vehicle to our police equipment up-fitter so that they can identify any challenges they will have installing our police equipment and mobile data terminals in the car.

If, after the research, it looks like the Tesla Model 3 or Y is a feasible option for a patrol car, we would purchase one vehicle to see how it works for us.

It is not believed that electric cars could fully replace all of the combustion engine cars for our fleet. A power outage could create down time for the length of the outage for a Tesla once the battery runs down.

Any questions or concerns about the process of the research and the potential purchase of a Tesla for the use of a patrol vehicle should be directed to Chief Tracey McCoy at 303-990-5185