

Subject: DES: Cost of Electric Police Cruisers Versus Gas Fueled

**FY 2023 Proposed Budget
Budget Work Session Follow-up**

3/24/2022

The following information is provided in response to a request made by Mr. Dorsey at the work session on 03/03/2022, regarding the following question:

What is the cost differential between police cruisers that are electric versus gas fueled?

Based on the County's current contract through the Virginia Sheriff's Association (VSA), a Utility Interceptor (Explorer) is listed at \$32,481 for the base AWD vehicle. The Utility Interceptor is considered the standard of Ford's pursuit rated vehicles. The recently released and similarly equipped, fully electric Mach-E is listed at \$46,730. This premium of \$14,249 is similar to other electric vehicle offerings for light trucks (Lightning) and vans (eTransit).

Although the Mach-E has reportedly achieved all the requirements to be "pursuit rated", they have not yet been certified as such. Manufacturers designate their vehicles as "pursuit rated" after performing multiple internal safety and performance tests. There is no standard checklist or requirement at this time making this a uniform rating. Ford has determined that the regular Mustang and the Mach-E, as currently designed, do not meet their internal requirements in terms of braking ability. According to our Ford Regional Fleet Manager, the vehicles are being piloted by some police departments in the Country. For example, New York City has purchased 160 Mach-E vehicles, with a range of 240 miles, as part of their 10,000 unit fleet of police cars.

The Arlington County Police Department currently has a total of 263 vehicles, 188 pursuit rated and 75 non-pursuit rated. For FY23, 23 pursuit rated and 9 non-pursuit rated are coming due for replacement. For FY24, 37 pursuit rated and 7 non-pursuit rated are coming due for replacement.

Piloting Electric Vehicles in the Police Department

The DES Equipment Bureau is working with leadership at the Police Department to determine if a Mach-E, or a similar electric vehicle, could be piloted as a first step, focused primarily on non-pursuit vehicles. The Police Department has already begun its

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pilot of the Nissan Leaf sedan for Public Service Aids (PSAs) and Transportation Safety Technicians (TSTs).

The pilot of the Nissan Leafs will determine the impact of emergency lighting and radios on an EV that has proven otherwise to be perfect for Arlington's limited 26 square mile footprint. Given no unforeseen surprises, the pilot will end soon, and these vehicles will become the default going forward for this group of vehicles. While we anticipate this pilot to be successful, if we do encounter issues with the battery life and running emergency lighting and radios, a new Leaf has become available that has an increased range of 40-50 miles that would be an option to make electric vehicles viable for PSAs and TSTs. Through this pilot, we have converted five of the ten vehicles assigned to these functions. The remaining five are not due for replacement for a couple years and at that point will be converted to electric.