

**City of Alexandria, Virginia**  
**FY 2024 Proposed Operating Budget & CIP**  
**Budget Questions & Answers**

**April 5, 2023**

**Question:** Can you provide an update on the City’s implementation of the Alternative Fuel Policy adopted in 2021 including the goals to replace 25% of the City’s fleet with electric vehicles by 2024 and reducing overall vehicle emissions from the City’s fleet by 25% over the next 10 years. How does this policy impact the purchase of heavier equipment such as street cleaning, garbage collection and police and fire vehicles? What is the remaining inventory of gas-powered landscaping machinery and the cost of replacement with electric powered machinery?

**Response:**

Fleet Management within T&ES is working to help the City meet its aggressive goal of replacing 25% of the City fleet with electric vehicles by 2024 and reducing overall vehicle emissions from the City’s fleet by 25% over the next 10 years. The City has implemented several green fleet strategies to optimize the fleet, increase alternative fuel, and best practices to minimize VMT (Vehicle Miles Traveled). The team continues to purchase electric vehicles as fuel-powered vehicles are retired and is exploring the purchase of electric heavy equipment – for example, in November, T&ES completed a successful weeklong test drive of an electric refuse truck.

However, some key changes to the auto industry since 2021 – including residual supply chain impacts related to the COVID-19 pandemic – may necessitate revisiting these goals as they pertain to the purchase of heavier equipment such as street cleaning, garbage collection and police and fire vehicles. Since the Alternative Fuel Fleet Policy was adopted, we have seen the following nationwide trends:

- A shortage of both fuel-powered and electric vehicles, which has meant longer wait times for vehicle procurement across the board.
- Although a rebound is expected, the development and construction of infrastructure needed to support electric vehicles (e.g. charging stations), slowed during the height of the pandemic.

At the City level, staff have determined that replacing 25% of the City’s fleet with electric vehicles in the next 1.5 years would require the replacement of a significant number of vehicles – approximately 250 – that will not have met the City standard for decommissioning by 2024. The early replacement of these vehicles has both environmental and fiscal implications that must be weighed. Navigating through these topics to successfully achieve our shared sustainability goals as outlined in the Alternative Fuel Policy and Environmental Action Plan requires close coordination between multiple departments.

In early FY 2024, an internal working group comprised of all relevant City stakeholders, including the Office of Climate Action and all agencies that use City-issued vehicles (Fire, ACPS, DASH, and RPCA), will be developed to devise a detailed, data-driven plan for achieving the goals outlined in the Alternative Fuel Policy, ensure we are balancing our sustainability goals with good stewardship of the City’s financial resources, and identify some no-cost methods to reduce greenhouse gases, such as increased enforcement of the anti-idling policy for City vehicles, which would cut both fuel costs and cut emissions.

RCPA currently operates two electric snow spreaders and two electric leaf/snow blowers. There are 56 additional blowers, mowers, edgers, weeders, and chainsaws. Forty-nine of them could be replaced with electric units at a cost of \$376,000. The replacement cost for equivalent gas-powered units would be \$170,000, however they are not all currently in need of replacement. The equipment replacement cost does not include the potential cost for upgrading electrical systems for charging capacity or facility storage for batteries. There are seven larger mowers for which no electric-powered equivalent exists in the current market.

It is anticipated that heavy duty and specialty vehicles will be at least twice as expensive as their fossil fuel versions. Early adoption would also increase our risk as the vehicles have not been tested under a full range of conditions yet. Staff from the Office of Climate Action and T&ES (Fleet) are working together to develop surveys directly with departments to identify the most cost-effective methods of replacement.