

**PROCEDURES FOR USING THE TCO CALCULATOR AND
REQUESTING EXEMPTIONS TO THE REQUIREMENT TO
PURCHASE ELECTRIC VEHICLES**

Effective January 1, 2023

**Department of General Services
Office of Fleet Management Services (OFMS)**

A. Background

Chapter 789 of the 2022 Acts of Assembly requires that, with certain exceptions, all agencies of the Commonwealth use a total cost of ownership (TCO) calculator prior to purchasing or leasing a light-duty vehicle beginning January 1, 2023. The required TCO calculator is located on the DGS/Office of Fleet Management Services' (OFMS) website (<https://dgs.virginia.gov/fleet/>) under the Resources tab. For the purpose of this requirement, a light-duty vehicle is defined as a vehicle with a curb weight of less than 14,000 pounds.

The TCO calculator compares the total cost to purchase, own, lease, and operate a light-duty internal combustion-engine (ICE) vehicle versus a comparable electric vehicle (EV). Agencies are required to purchase the less expensive of the two vehicles unless they are granted an exemption from DGS.

B. TCO Calculator Factors

The TCO calculator has populated data fields such as the year, make, model and base price of vehicles that are available on state contract and included fillable data fields for vehicles that are not available on state contract. Users are required to enter the anticipated annual number of miles that the vehicle will be driven based on historical rental vehicle mileage data or personal reimbursement mileage data.

The TCO calculator calculates the total cost of ownership of both vehicles using the following factors:

- Depreciation is 60% of the purchase price per industry leaders such as Kelley Blue Book and Edmunds;
- Insurance costs are based on the Department of Treasury/Division of Risk Management CarCare program. Cost is \$1 per \$100 value;
- Maintenance expenditures are based on OFMS' last four years of actual costs per ICE vehicle classification. Until the same amount of EV maintenance data is incurred, the EV maintenance cost is 32% of the ICE expenditures, based on guidance from AAA;
- Fuel costs are based on the Commonwealth's fuel card contract, using the average cost per gallon for ICE vehicles and non-peak average cost of 18 cents per kWh for EVs, multiplied by the annual miles entered by the user;
- Resale proceeds are the remaining 40% of vehicle value after depreciation;
- Ownership is based on seven years for the following reasons:
 - OFMS capital leases are spread over 84 months
 - To obtain the highest resale value, OFMS surpluses vehicles at 85,000 miles and prior to the 10-year anniversary and EV battery warranty expiration
 - 85,000 miles is achieved in seven years at 12,000 annually; and
- Electric Vehicle Supply Equipment (EVSE) – Charger cost is, at a minimum, \$6,000* for installation of a networked charger. End users are encouraged to seek a quote from their utility provider for a more accurate cost of installation at their facility;

This TCO calculator may not fully account for all costs of EV ownership. Other factors or costs agencies should consider include:

- Battery Disposal;
- Added expense of on-the-road charging during work hours;
- Expanding the electric or other infrastructure to accommodate multiple electric vehicles;
- Lack of supporting infrastructure in the geographical area where the vehicle will be operated; and

- Charging station redundancy.

If the calculator yields a TCO number for an EV that is lower than that for an ICE vehicle, the overall cost of the EV may still be higher depending on the total cost for these additional factors. If this is the case, agencies should contact DGS to make sure they are fully accounting for all costs associated with an EV.

C. Procedures for Requesting an Exemption

1. For emergency vehicles as defined in Va. Code § 46.2-920 or other vehicles that an agency intends to use in law-enforcement, incident response, or other emergency response vehicles:
 - a. An agency is not required to use the TCO calculator prior to purchasing or leasing such vehicle. However, the agency is required to submit the OFMS-1 form to OFMS prior to purchase or lease.
2. For all other types of vehicles:
 - a. Once an agency has determined a need for a vehicle, the agency's Agency Transportation Officer (ATO) must use the TCO calculator to compare an ICE vehicle and EV of like kind.
 - b. If the TCO calculator indicates that the EV will have a lower total cost of ownership and the agency would like to seek an exemption from the requirement to buy the EV, the ATO shall select the appropriate exemption(s) from the following list on the TCO calculator and then print and include the TCO form along with the OFMS-1 form that the agency is required to submit to OFMS. Note: The TCO printout is a part of the OFMS-1 form package and the process for the submission of the OFMS-1 form is outlined in the OFMS Fleet Manual.

The exemptions are as follows:

- The EV manufacturing/delivery date is 90 days longer than the ICE vehicle delivery date;
- An EV equivalent to the needed/desired ICE vehicle does not exist or is not available;
- EV and EVSE installation costs exceed budgeted funds;
- The vehicle will be used at least 75 percent of a 24-hour day and thus cannot be charged sufficiently each day;
- The agency lacks permission from the property owner to install the charging station/infrastructure;
- EVSE installation is not conducive to the facility site;
- The vehicle's anticipated daily driving range exceeds EV capability and/or there is inadequate infrastructure in the geographical area where the vehicle will be operated; or
- The vehicle purchase is paid with grant funds but the cost of the EVSE is not.

c. Upon submission of the OFMS-1 form (including the TCO printout and the exemption request form) to OFMS, OFMS will review and approve or deny the exemption request within five business days.

* \$6,000 minimum costs are based on information published by: Future Energy, Watt Logic and CyberSwitching