



ANNE ARUNDEL COUNTY
OFFICE OF THE COUNTY AUDITOR

To: Members of the County Council
From: Susan L. Smith, County Auditor
Date: December 30, 2020
Subject: Legislation to be heard on January 4, 2021: Bill Nos. 105-20 and 106-20.

Bill No. 105-20: Finance, Taxation, and Budget – Real Property Taxes – Tax Credits – Disabled Veterans and Their Surviving Spouses

This bill establishes a real property tax credit for disabled veterans that have been honorably discharged and declared by the U.S. Department of Veterans' Affairs to have a permanent service connected disability of 50% to 99% as authorized by Md. Code Ann. Tax-Property Article § 9-265. This bill also establishes a real property tax credit for the surviving spouse defined as the spouse of a deceased disabled veteran receiving the tax credit at the time of death who has not remarried. The tax credits for the disabled veteran and the surviving spouse are each for a maximum of five years.

To receive the tax credit, the disabled veteran or the surviving spouse must own the dwelling house (defined as real property that is the legal residence of a disabled veteran and is occupied by two or fewer families), have a federal adjusted gross income in the preceding tax year of less than \$100,000, and complete the application and provide the required support by the deadline of April 1st. If the disabled veteran has a disability rating of at least 50% but not more than 74%, the tax credit for the disabled veteran and the surviving spouse is 25% of the County real property tax. If the disabled veteran has a disability rating of at least 75% but not more than 99%, the tax credit for the disabled veteran and the surviving spouse is 50% of the County real property tax.

Md. Code Ann. Tax-Property Article § 7-208 provides a real property tax exemption for disabled veterans that have been declared by the U.S. Department of Veterans' Affairs to have a permanent 100% service connected disability and their surviving spouses or surviving spouses of those that died in the line of duty, under certain circumstances. For fiscal year 2021 (FY2021), there were 1,657 veterans with a permanent 100% service connected disability and 86 surviving spouses in Anne Arundel County that were exempt from real property taxes for properties with an assessed value totaling approximately \$719 million with a County real property tax exemption of approximately \$4 million to \$7 million. Anne Arundel County Code § 4-2-319 provides a real property tax credit for retired veterans of 15% of the County property tax if they own a dwelling with an assessed value of \$500,000 or less and submit an application and supporting documentation to the Controller by April 1st. The tax credit for retired veterans is for a maximum of five years. During FY2021, the County issued tax credits to retired veterans for 289 parcels totaling \$100,711.

We noted one other Maryland county that offers a real property tax credit for disabled veterans with a disability rating less than 100%. Specifically, Washington County provides a real property tax

credit for disabled veterans with a disability rating of 1% to 99% with a real property tax credit based on their disability rating. For example, a disabled veteran with a 60% disability rating receives a 60% real property tax credit. The U.S. Department of Veterans Affairs estimates that Washington County has approximately 9,700 veterans. According to Washington County, during FY2021, it issued 238 tax credits for disabled veterans for approximately \$310,000.

According to the Maryland Department of Veterans Affairs, there are currently approximately 50,000 veterans in Anne Arundel County. The U.S. Department of Veteran Affairs has not updated its statistics on the number of disabled veterans by disability rating ranges and counties since fiscal year 2014. As of September 30, 2014, there were approximately 55,000 veterans in Anne Arundel County, of which 5,077 had a disability rating between 50 to 99% per the U.S. Department of Veterans Affairs. Thus, extrapolating the current population of veterans with the 2014 disability percentages, we estimate that there are currently approximately 4,600 disabled veterans in Anne Arundel County with a disability rating of 50 to 99%. The average County property tax for a homeowner occupied property outside of the City of Annapolis is \$3,050 and the average County property tax for a homeowner occupied property inside of the City of Annapolis is \$1,992.

We cannot readily determine the amount of the tax credit that would be awarded under this bill. While we can estimate that there are approximately 4,600 disabled veterans with a disability rating ranging from 50 to 99% in Anne Arundel County and we know the average County property tax, we cannot determine how many of those disabled veterans meet the other requirements, including the number that own a dwelling as opposed to renting, and the number that have a federal adjusted gross income limit of less than \$100,000. We also cannot determine the number of surviving spouses that would meet the requirements for this tax credit in future years. However, due to the County's general practice of maximizing the tax cap, this credit would not impact the property tax revenue collected by the County, but rather would shift the tax to the remaining tax base.

The Office of Finance anticipates needing one additional Accountant I and one additional Customer Service Representative to review and process the tax credit applications; to review the support for the income requirements, ownership of the dwelling, and veterans' disability; and to request additional support and answer citizen questions. An Accountant I position has a pay grade of NR-15 with an annual salary ranging from \$50,453 to \$85,737. A Customer Service Representative has a pay grade of OS-7 with an annual salary ranging from \$35,360 to \$58,032. The annual salary, FICA, and benefits for these two positions based on current costs would range from \$100,200 to \$233,300. The top range estimate for benefits includes the cost of participating in the Employee's Retirement Pension Plan at the current pension rate of 22.65% of salaries.

Bill No. 106-20: Purchasing – Procurement – Transition the County's Vehicle Fleet to Hybrid and Zero-Emission Vehicles

This bill requires the County to transition its passenger vehicles, multi-purpose passenger vehicles, and trucks with a load capacity of $\frac{3}{4}$ ton or less and a gross vehicle weight of 10,000 pounds or less to hybrid or zero-emission vehicles during a specified time period as long as the purchasing agent determines that the vehicles meet the financial, operational, and technological needs of the using agencies. Specifically, County-owned or leased vehicles that require replacement and newly added vehicles are required to be replaced with hybrid or zero-emission vehicles as of the effective date of this bill, and replaced with only zero-emission vehicles starting in fiscal year 2035. If the purchasing agent determines that hybrid or zero-emission vehicles do not meet the financial, operational, or technological needs of the using agencies, the purchasing agent is required to purchase or lease vehicles with the lowest emissions that do meet the financial, operational, and technological needs of the using agencies.

Additionally, this bill requires the purchasing agent to submit a report annually to the County Executive and the County Council of all such procurements made during the preceding fiscal year. Further, this bill requires the Office of Central Services to complete a plan, by the end of FY2025, that outlines the long-term infrastructure, charging, and maintenance needs, as well as any staff, training, equipment, or contracted resources necessary to meet the requirements.

This bill defines hybrid vehicle as a vehicle using two different forms of power, such as an electric motor and an internal combustion engine or an electric motor with a battery and fuel cells for energy storage. This bill defines zero-emission vehicle as the meaning stated in Md. Code Ann. Transportation Article § 23-206.4, which is defined as any vehicle that is determined by the Secretary of the Maryland Department of Environment to be of a type that does not produce any tailpipe or evaporative emissions and has not been altered from the manufacturer's original specifications.

Replacement Costs:

The majority of County vehicles are replaced with the County's Garage Vehicle Replacement Fund. The County's policy is to replace vehicles every five years, however, Police Department vehicles have been replaced every three to five years. The current vehicle list for the Garage Vehicle Replacement Fund includes 1,641 vehicles, of which 207 are exempt from this legislation because they do not meet the definition (e.g., trucks greater than $\frac{3}{4}$ ton), leaving 1,434 vehicles impacted. The majority of these vehicles are used by the Police Department (793 vehicles), followed by the Department of Public Works (254 vehicles), Department of Inspections and Permits (84 vehicles), and the Fire Department (82 vehicles). The vehicle fleet includes sports utility vehicles (857), pick-up trucks (280), mid-size vehicles (147), compact vehicles (87), and vans (63). There are also vehicles purchased directly in a department's budget, but these tend to be unusual vehicles, such as specialty trucks used by the Department of Public Works that would not be subject to the requirements of this bill.

To determine the estimated increase in replacement costs for replacing the County's current vehicles with hybrid vehicles, we obtained the base-level costs of hybrid vehicle models available for each vehicle class and compared these costs to recent average County purchase prices for internal combustion vehicles for the same class and sizes. For certain vehicle types (e.g., $\frac{1}{2}$ ton and $\frac{3}{4}$ ton pick-up trucks, vans), there is not a current hybrid vehicle option at the moment so pricing is not available. We found pricing for hybrid vehicle replacement options for 980 of the 1,434 County vehicles. For these vehicles, we determined that the hybrid vehicle options with the lowest manufactured suggested retail prices (MSRPs) were on average 122% of the current average prices paid by the County for the base price of a similar vehicle class and size, for an additional cost of approximately \$3.64 million. Based on this average price increase, we estimated that the additional replacement cost for the remaining 454 vehicles, would result in an additional cost of approximately \$2.95 million, for total additional replacement costs totaling approximately \$6.59 million. This additional cost would be spread over the replacement period of three to five years. We should note that the hybrid vehicle options with the lowest MSRPs ranged from 107% to 150% of the current average prices paid by the County depending on the vehicle class and size. Further, the hybrid vehicles with the highest MSRPs were on average 158% higher than County's average current prices. However, with competitive bidding and multiple vehicle purchases we expect that the options with the lowest MSRPs is closer to what the County would ultimately pay.

To determine the estimated increase in replacement costs for replacing the County's current vehicles with zero-emission vehicles, we obtained the base-level costs of electric vehicle models available for each vehicle class and compared these costs to recent average County purchase prices for internal combustion vehicles for the same class and sizes. For certain vehicle types (e.g., public safety sports utility vehicles, $\frac{1}{2}$ ton and $\frac{3}{4}$ ton pick-up trucks), there is not a current electric vehicle option with pricing

available. We found pricing for electric vehicle replacement options for 359 of the 1,434 County vehicles. For these vehicles, we determined that the electric vehicle options with the lowest MSRPs were on average 188% of the current average prices paid by the County for the base price of a similar vehicle class and size, for an additional cost of approximately \$5.9 million. Based on the average price increase, we estimated that the additional replacement cost for the remaining 1,075 vehicles, would result in an additional cost of approximately \$35.4 million, for total additional replacement costs totaling approximately \$41.3 million. This additional cost would be spread over the replacement period of three to five years. We should note that the electric vehicle options with the lowest MSRPs ranged from 161% to 207% of the current average prices paid by the County depending on the vehicle class and size. Further, the electric vehicle options with the highest MSRPs were on average 240% of the County's average current prices. While competitive bidding and multiple vehicle purchases should help keep costs down, electric vehicles vary in the driving ranges between charges and the rate the vehicle can be charged which will also need to be factored into the vehicle selected by the County.

We would also anticipate the difference in replacement costs will be reduced over time as more hybrid and zero-emission vehicle options become available.

Fuel Costs:

During FY2020, the County spent approximately \$3.1 million on unleaded fuel with an average cost of \$2.38 per gallon. According to the U.S. Department of Energy, in 2014, hybrid vehicles fuel costs were approximately 70% of non-hybrid vehicle fuel costs. According to carsdirect.com, currently hybrid vehicles receive approximately 25% to 33% greater fuel economy compared to vehicles powered solely by gasoline. Based on this assumption and the County's FY2020 fuel costs, replacing the County's vehicles with hybrid vehicles would save the County approximately \$770,000 to \$1,017,000 in annual fuel costs.

According to the U.S. Department of Energy, the cost of fueling a zero-emissions vehicle using electricity is approximately \$1.18 per eGallon in the State of Maryland (using statistics updated through 11/28/20). Based on the FY2020 fuel consumption, replacing the County's vehicles with electric vehicles would save the County approximately \$1,685,000 in annual fuel costs.

Maintenance Costs:

According to the American Automobile Association (AAA), the average cost of maintenance, repair, and tires for 6 vehicle classes of internal combustion powered vehicles utilized by the County range from 8.53 to 9.6 cents per mile, with an average of 8.98 cents per mile. According to AAA, the average cost of maintenance, repair, and tires for hybrid vehicles and electric vehicles is 7.7 cents per mile and 6.6 cents per mile, respectively. One of the primary reasons for the reduction in maintenance costs is due to minimal scheduled maintenance needs for electrical systems since they use fewer fluids (e.g. oil, transmission fluids) than their counterparts. Batteries in electric vehicles are designed for extended life, but they will eventually wear out and cost more to replace. However, many manufacturers are offering extended warranties on batteries as an incentive for investing in hybrid vehicles or electric vehicles.

According to the costs captured by the Office of Central Services' work order system, during FY2020 the County spent approximately \$2.4 million on maintenance, repairs, and tires for the current County fleet. Based on the AAA's average costs, we estimate that if the County's fleet was hybrid vehicles or electric vehicles, the County would reduce these maintenance costs by approximately \$335,000 or \$646,000, respectively.

Infrastructure:

Generally, hybrid vehicles are not plugged in to charge the battery. Instead, the battery is charged through regenerative braking and by the internal combustion engine. The battery provides additional power which allows for a smaller engine. Thus, charging stations are not necessary for hybrid vehicles.

However, electric vehicles are required to be plugged in regularly to be recharged. Level 2 chargers typically found in public places like grocery stores and parking garages require a 240V circuit, similar to a clothes dryer. The charging rate depends on the vehicle and the maximum current available. A typical Level 2 charger can take 8 hours or more for a full charge, adding approximately 25-30 miles of range per hour. DC Fast Charging stations can typically add 50 to 90 miles in 30 minutes depending on the station's power capacity and the vehicle model. As the batteries reach full capacity the time it takes to add charge extends. Additionally, some vehicle models are not able to use rapid chargers. Thus, the County will need to consider the potential downtime for the availability of the vehicles while they are charging and the impact on the employee's needs. For example, can the vehicle be charged overnight while the employee is not at work or at a DC Fast Charging station during the day while the employee is at the office and not in need of the vehicle? Does the employee need to bring the vehicle home, and if so, are there options for paying the employee to charge the vehicle at home. There also may be possible BGE rebates or grants for a portion of the costs for the installation of charging stations, but these rebates or grants might have certain stipulations (e.g., require transformers to be already in place).

The cost of the infrastructure will depend on the number and location and types of the charging stations, whether the charging station location already has transformers in place or if these will need to be added. Other variables include whether the County has a current location to place the chargers, or if that location will need to be purchased, as well as the extent of any potential availability of a BGE rebate. As an example, the Annapolis Library recently put in two Level 2 chargers with two ports each (four parking spaces with chargers) plus one DC Fast Charging space, with existing available transformers at a cost of approximately \$124,000 for the equipment, utility, contractor, and network costs.

A study will need to be completed to determine the department needs, the types of vehicles to be purchased, the charging systems required for those vehicles and employee needs, the best locations for the charging systems, and the available County property for the infrastructure before a reasonable estimate of the costs can be determined.

Other Costs:

The Central Garage anticipates training eight mechanics on electric/hybrid vehicle maintenance for a total cost of approximately \$40,000. Additionally, the Central Garage anticipates needing approximately \$8,000 for tools and safety related items for each garage location, for a total cost of \$24,000. According to the Office of Central Services, it is able to prepare the annual purchasing report and the infrastructure plan with its existing resources.



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