

FY 2021-22 Budget Board of Supervisor Inquiry Form

Deadline: October 3, 2021

Please email: CAO-Budget@sonoma-county.org

| Board Member | |
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Department: General Services

Date: 9/1/2021

Inquiry Number: BIR-15

Request/Question:

What actions are we taking to move fleet operations away from internal combustion engines?

Response:

Background: For over 30 years, General Services' Fleet Operations Division has focused on developing alternatives to internal combustion engines in the County's vehicle fleet. The division introduced Compressed Natural Gas (CNG) refueling capabilities and converted 20 internal combustion engine vehicles to CNG in the late 1980's. In subsequent years, General Services continued to collaborate with numerous internal and external stakeholders to seek out and advocate for alternatives to the County's continued reliance on petroleum based fuels. Starting with the County's first all-electric Nissan Leaf during FY10-11, and through the use of a collaborative procurement partnership with multiple agencies to install nearly 20 Electric Vehicle (EV) charging stations at six different County buildings, General Services has expanded the County's Zero Emission Vehicle (ZEV) Fleet and EV charging infrastructure to include a total of 22 EV Ford Focuses. Most of these EV's were put into the County's Motor Pool for general use with the remainder purchased and used by Departments.

Current Actions: At present, the County has a total of approximately 35 ZEVs and 245 hybrid light and medium duty vehicles (i.e. utility vehicles, compact sedans, midsize sedans, compact SUVs, pickups, and vans) in the County Fleet (County Motor Pool and various Departments). 3.5% of the County's On-Road Fleet is alternatively fueled. In general, although the County of Sonoma was an early leader in advancing ZEVs and hybrid vehicles to reduce the County's carbon footprint, there have been numerous internal and external factors that have limited the County's ability to continue increasing the number of ZEVs in the County's Fleet.

Fleet Department Staff Resources

Fleet operations performs critical 24/7 disaster operations distributing emergency supplies during disasters. This function includes receiving and managing supplies from CalOES and FEMA. Each activation of the EOC requires staff halt regular work and deploy 100% to support the disaster logistics supply operations as well as meeting the vehicle service and refueling needs of first responders. The

department has not had dedicated staff to focus on the EV program nor has the expertise to develop and manage the build-out of EV charging infrastructure. The Department anticipates requesting (1) FTE Program Manager to support the Strategic Planning Climate Action initiatives 4.1 and 4.3 associated with expanding the EV program and EV charging infrastructure.

Auto Manufacturers Limited Options

While some routine vehicle operations of the County have easily adopted EV's as alternatives, e.g. fleet pool use, sourcing EV's for department uses and auto manufacturer's limited production of vehicles of all types, as well the time it takes to build acceptance within Departments, has slowed the rollout of cost effective and reliable ZEV options in the County's fleet. For example, for over a decade the majority of ZEVs made available by auto manufacturers have been restricted to small compact vehicles since high voltage battery technology had yet to be mature enough to produce a battery that could deliver sufficient range and performance to incorporate into larger vehicles. Although auto manufacturers having suffered numerous delays over recent years to deliver additional vehicle options (light-duty full-size vehicles and larger), Ford is the first of the big three U.S. automakers currently scheduled to finally begin full production of an all-electric F-150 pickup and e-Transit van starting in mid to late 2022 (with Chevrolet playing catchup and their all-electric Silverado not entering into production until 2025).

To date, many of the original EV Ford Focuses the County purchased have reached the end of their life cycle. General Services has continued to replace EVs per their replacement schedule with other available EVs or Plug-In Hybrid Electric Vehicles (PHEVs) that have greater range. For example, the Ford Focuses created significant 'range anxiety' due to their limited approximately 75 mile range which led to low utilization within the County fleet. We have replaced these limited range vehicles with the new Chevy Bolts with a range of approximately 250 miles. The Fleet division advocates and encourages Departments to contribute towards the County's Greenhouse Gas Emission (GHG) reduction efforts by investing in new ZEVs as they come onto the market (along with associated EV charging infrastructure).

While we wait for technology to advance and for manufacturers to expand production to produce a sufficient number and type of ZEV options across all vehicle and equipment weight classifications, General Services has been proactively expanding the number of ZEVs in the County Fleet, helping define the goals and objectives in the County's Strategic Plan to reduce GHGs (i.e. vehicles, buildings, 'Green Purchasing Policy', etc.), and working with County Departments to meet their vehicle needs to best support operational requirements and working towards a fully funded and managed ZEV program.

ZEV Uses and Acceptance

Although manufacturers have expanded the quantity and types of ZEVs and continue to invest significantly in development, ZEVs are not ideal for all use cases. For example, when larger portions of the County are experiencing Public Safety Power Shutoffs (PSPS), which have the potential to last days or even weeks, the County will have limited means to power/re-energize the County's Fleet of all-electric vehicles without the deployment of solar or other alternate generation systems. Currently this alternative generation infrastructure is not in place.

Similarly, there has been limited data and experience using electric vehicles in law enforcement patrol activities. General Services is closely monitoring the industry and will evaluate pilot program opportunities for future consideration in collaboration with the Sheriff's department.

To inform the Strategic Planning Climate Action objective of replacing the vehicle fleet with EV's,

General Services has partnered with a local Bay Area vendor, Green Light Laboratories, to generate “Fleet Electrification Reports” for the County. These reports identify ideal candidates to transition to ZEVs based on historical vehicle utilization data (and a number of other variables). The first report focused on optimizing the FY21-22 vehicle procurements (i.e. cost, number, options, etc.) to incorporate more ZEVs and hybrids, EV infrastructure to meet current/future needs, and estimated GHG reductions associated with these replacements. The second report will be focused on similar information but for future year vehicle procurements. General Services is currently reviewing the recommendations made in the initial report and will be using this information to not only inform this fiscal year’s vehicle purchases but to plan for the resources needed to grow the County’s ZEV fleet and EV infrastructure.

Future Actions: Following a thorough review of Green Light Labs’ first “Fleet Electrification Report”, General Services’ Fleet Operations Division will use the report to better inform FY21-22 vehicle purchases and increase the number of ZEVs in the County fleet. Additionally, with approval of the County’s Strategic Plan’s EV implementation, General Services will work to adequately resource the County’s ZEV program by augmenting the Fleet Operations Division team with additional staff to effectively handle the labor-intensive aspects of growing the County’s ZEV fleet and EV infrastructure. General Services will further continue to collaborate with Green Light Labs on the second “Fleet Electrification Report” so as to better inform the costs, benefits, and feasibility of continuing to transition internal combustion engine vehicles to ZEVs through 2026 and beyond.