



EV Smart Fleets

CAPTURING THE FEDERAL EV TAX CREDIT FOR PUBLIC FLEETS

A CASE STUDY OF A MULTI-JURISDICTIONAL ELECTRIC VEHICLE FLEET
PROCUREMENT IN ALAMEDA COUNTY, CALIFORNIA

April 2017

A NATIONWIDE INITIATIVE TO ACCELERATE ELECTRIC VEHICLE ADOPTION IN PUBLIC FLEETS

ABOUT EV SMART FLEETS

Public fleets are realizing significant benefits from the deployment of plug-in electric vehicles (EVs). Many public fleets also want to 'lead by example' by showing the general public the benefits of transitioning to EVs. Although EVs are increasingly becoming a successful application for fleets, higher incremental costs, procurement processes, and insufficient charging infrastructure remain critical barriers to adoption.

EV Smart Fleets seeks to overcome these challenges by aggregating state and local fleet purchases for EVs through a multi-state aggregated EV solicitation and procurement agreement. EV Smart Fleets goals include:

- Accelerate electric vehicle adoption by public fleets
- Lower the purchase price of electric vehicles for public fleets by at least 15% through volume purchases and creative financing and ownership tools
- Increase access to a wider range of electric models

EV Smart Fleets will also seek to improve access to EV charging stations for public fleets.

CLEAN CITIES COALITION PARTNERS

Clean Cities Coalitions nationwide will play an integral role in this project. Below are the current project partners:

- Columbia-Willamette Clean Cities Coalition
- Denver Metro Clean Cities Organization
- Granite State Clean Cities Coalition
- Long Beach Clean Cities
- New Jersey Clean Cities
- Greater New Haven Clean Cities Coalition
- Ocean State Clean Cities
- Sacramento Clean Cities Coalition
- Western Washington Clean Cities

This initiative is being funded by the U.S. Department of Energy Clean Cities Program and the California Department of General Services. Find out more at www.evsmartfleets.com.

PROJECT TEAM



EXECUTIVE SUMMARY

Alameda County, California, led a collective electric vehicle (EV) purchase of 90 EVs for ten county and municipal public fleets. The aggregate procurement resulted in the purchase of 64 Ford Focus EV sedans at \$31,361 per vehicle and 23 Nissan LEAF EV sedans for \$33,947 per vehicle. The jurisdictions also conducted aggregate procurements for EV charging stations and charging station installations.

Alameda County created a single bid process for the aggregated procurement, evaluated the bids received, and designated the qualified bidder with the lowest price for each of the specified vehicles. Each participating agency then awarded purchase contracts to the winning bidder based on the accepted bid price. The solicitation encouraged dealerships to take advantage of the federal EV tax credit and pass on the value of this credit through a line item discount into the final bid price. One bidder included the full value of the federal tax credit—a discount of \$7,500 per vehicle—and was ultimately declared the lowest bidder.

The procurement process was successful in attracting bids from local vendors for the purchase of EVs, while reducing vehicle purchase administrative costs for participating fleets. The model was considered so effective that it was subsequently used for future procurements.

Alameda County has successfully integrated EVs into fleet operations and has received largely positive reviews from county employees. Additionally, the use of fleet EVs and availability of workplace charging has encouraged several county employees to purchase EVs for personal vehicles. The EVs purchased under the Alameda County procurement are projected to save \$500,000 in fuel costs and reduce fleet carbon dioxide (CO₂) emissions by 1.5 million pounds over the next five years.

FIGURE 1: ALAMEDA COUNTY STAFF WITH NISSAN LEAF



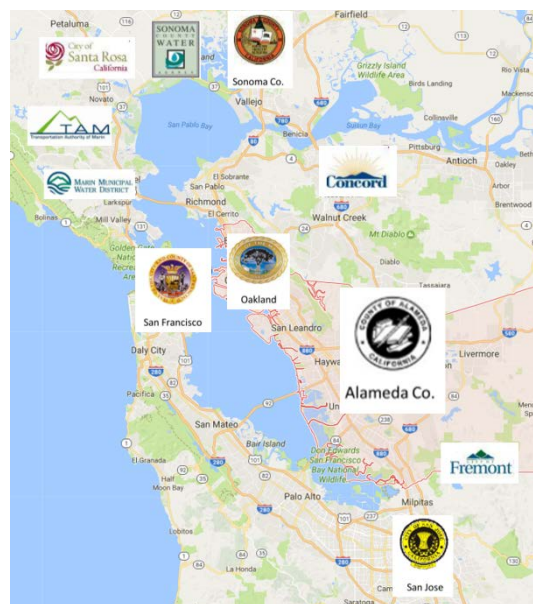
Source: Doug Bond, Alameda County

OVERVIEW

Alameda County, California, and nine other California jurisdictions participated in the Local Government Electric Vehicle (EV) Fleet Project, a collective electric vehicle fleet purchase of 90 EVs, along with EV charging stations and charging station installations, for local city and county fleets. The General Services Agency of Alameda County was responsible for leading this multi-jurisdictional solicitation effort and conducting a single bid and evaluation process that resulted in an approved vendor list for each of three specific EV types. Each participating agency then contracted directly, and separately, with the approved vendors for their EV purchases

The primary objectives of the Local Government EV Fleet Project¹ included substantially reducing fleet emissions, stimulating regional interest in EVs, and providing a demonstration to encourage replication in jurisdictions nationwide. The collaborative nature and scale of the project were also intended to support the EV market by demonstrating demand for new vehicles and showing how EV costs can be reduced through economies of scale. By building a knowledge base and gaining experience with the full EV supply chain, the project also hoped to establish EV infrastructure and familiarity to accelerate further EV adoption and stimulate green jobs in both the public and private sectors.

FIGURE 2: PARTICIPATING JURISDICTIONS IN LOCAL GOVERNMENT EV FLEET PROJECT



Source: Google Maps

PARTICIPATING JURISDICTIONS

The following California jurisdictions and agencies participated in the collective procurement process (number of EVs purchased):

- County of Alameda: 26
- Sonoma County: 22
- Sonoma County Water Agency: 5
- City of Santa Rosa: 4
- City of San Francisco: 14
- City of Concord: 10
- City of San Jose: 3
- City of Oakland: 3
- City of Fremont: 2
- Transportation Authority of Marin: 1

¹ Alameda County Website: <http://www.acgov.org/sustain/next/evp.htm>.

As the lead agency for the procurement effort, Alameda County was responsible for creating a single bid process that included a consolidated Request for Quotation (RFQ). The RFQ summarized expected purchase quantities by each participating agency and included separate terms and conditions for each agency. After evaluating the bids received, Alameda County designated the qualified bidder with the lowest price for each of three specific EV models. Each participating agency then awarded purchase contracts to the winning bidder based on the accepted bid price, in accordance with their own procurement procedures.

PROCUREMENT FUNDING AND FEDERAL EV TAX CREDIT

Alameda County purchased the vehicles outright, rather than lease or finance. The project received approximately \$2.8 million in Congestion Mitigation Air Quality (CMAQ)² funding from the Metropolitan Transportation Commission (MTC), for EV and charging station costs.

In the RFQ used for the solicitation, vendors were encouraged to claim the federal “Qualified Plug-in Electric Drive Motor Vehicle Tax Credit,” as allowed by the Internal Revenue Service, and to pass the value of this credit on to participating agencies as a specific discount against the bid price. Only one dealer—Hansel Ford—incorporated the credit into its bid. Hansel was ultimately declared as lowest bidder for EV sedans. Alameda County indicates that without the discount due to the federal tax credit, a different dealer would have been the lowest bidder for this EV type.

Dealership ability to pass on value of federal EV tax credit

Only one dealership incorporated the federal EV tax credit into its bid for EV sedans. Lack of familiarity with the federal tax credit, perceived risk in ability to receive the credit after delivery of vehicles, and insufficient tax liability to claim the credit were seen as the deterrents to other dealers. More information about the federal EV tax credit and its utilization for EV purchases for government fleets is included in Capture of Federal EV Tax Credit.

² The Congestion Mitigation and Air Quality (CMAQ) program allocates federal funding for infrastructure projects that reduce congestion and improve air quality in areas that (currently or formerly) do not meet certain federal air quality standards. CMAQ is jointly administered by Federal Highway Administration and the Federal Transit Administration (FTA). More information is available at https://www.fhwa.dot.gov/environment/air_quality/cmaq.

INTEGRATION OF EVS IN FLEET OPERATIONS

Alameda's procurement effort was informed by prior experience integrating EVs and fuel efficient vehicles into its fleet. Before this project, Alameda had approximately 25 EVs and over 140 hybrids in its light-duty/non-law enforcement fleet. After the successful aggregate purchase, approximately 26 percent of the county's non-police vehicles are "green," fuel-efficient vehicles.

Alameda typically holds its vehicles—both EVs and conventional internal combustion engine—for 7 to 10 years. The county has historically noted higher resale values for hybrids compared to standard fleet vehicles and expect a similar trend with EVs, although the current residual value of EVs is low.³

Most EVs in Alameda's fleet are used as motor pool vehicles, which are shared by employees for on-the-job travel. The County conducted EV ride-and-drive trainings to introduce the new fleet vehicles to employees and began testing "eco-meters" to promote efficient driving with the new EVs. The county indicated that the fully electric vehicles are suitable for most of the fleet's use requirements, but that the plug-in hybrid vehicles can be used for longer trips.

Alameda has six county-owned parking garages/lots with EV charging capability that have approximately 40 (cumulative) dual Level 1 and 2 charging stations.⁴ These charging stations are only available to county fleet vehicles outside of business hours.

COST SAVINGS AND ENVIRONMENTAL BENEFITS

The EVs purchased under the Alameda County procurement are projected to save \$500,000 in fuel costs and reduce fleet CO₂ emissions by 1.5 million pounds over the next five years.

FAVORABLE REACTION FROM COUNTY EMPLOYEES

Implementation of EVs and charging infrastructure has received largely positive reviews among county employees. Although there are still incidents of range anxiety, increased exposure to EVs have given many employees familiarity and comfort with the vehicles. In fact, several county employees have purchased EVs as personal vehicles in part because of the use of fleet EVs and the availability of workplace charging.

³ Christina Rogers, *Resale Prices Tumble on Electric Cars*, The Wall Street Journal, Feb. 26, 2015, <https://www.wsj.com/articles/resale-prices-tumble-on-electric-cars-1424977378>.

⁴ Alameda has received grant funding for EV charging infrastructure from the California Energy Commission and the Bay Area Air Quality Management District.

PROCUREMENT PROCESS

The Transportation Services and Purchasing departments of the General Services Agency (GSA) of Alameda County worked together to compile the requests for specific electric vehicle types, and corresponding purchase terms and conditions from each participating jurisdiction, into a single RFQ. The RFQ included solicitations for three different vehicle types: 1) EV sedans with Level 2 charging capability, 2) EV sedans with DC fast charging capability, and 3) electric cargo vans. Prospective vendors were allowed to submit bids for one or multiple vehicle types.

Because federal (CMAQ) funds were used for the EV purchase, the terms and conditions used by each jurisdiction had to conform to federal procurement rules. Some attempt was made to further harmonize contract terms and conditions among the participating agencies, but this was met with resistance from agency legal staff and was not pursued further. The RFQ, incorporated as a separate addendum, detailed unique terms and conditions for each participating agency, which were consistent with standard purchase agreements used by each agency and were modified only to conform to federal rules.⁵

Vehicle leasing was explored by Alameda County, but was not included as an option in the RFQ. Alameda indicated that most local vehicle dealers have limited fleet sales, and therefore do not have available commercial lease contracts for conventional gasoline vehicles, let alone for EVs. The use of retail leasing contracts is inappropriate for government fleet sales, and the effort required for legal review and negotiation of lease contracts could offset any potential cost savings.

The RFQ was released and posted online for eight weeks; it was also sent to five prospective vendors, subscribers to a GSA emailing service, and advertised in local newspapers and chambers of commerce. There were seven responses to the RFQ; one was disqualified due to an incomplete bid, and one was withdrawn because of an error in bid prices. The RFQ specified that contracts for each vehicle type would be awarded to the lowest priced qualified bidder that met each of the requirements in the RFQ. Based on those criteria, Alameda County designated the following dealers as the qualified bidders with the lowest price.

Dealer	Vehicle Type	Model	Number	Bid Price
Hansel Ford (Santa Rosa, CA)	Electric sedan (Level 2)	Ford Focus	64	\$2,007,104 (\$31,361/vehicle)
Gilroy European (Gilroy, CA)	Electric sedan (DC fast charge capable)	Nissan Leaf	23	\$780,781 (\$33,947/vehicle)
Zenith Sales (Indianapolis, IN)	Electric Cargo Van	Zenith Cargo Van	3	\$289,800 (\$96,600/vehicle)

⁵ In some cases, terms and conditions used by participating jurisdictions needed to be modified to remove terms which provided preference to local vendors.

Each participating jurisdiction was responsible for awarding its own purchase contract(s), based on its normal procurement procedures, to the designated low bidders.

The collaborative bid process reduced administrative costs, for both the participating agencies and prospective vendors, by eliminating the need for each jurisdiction to conduct its own, separate bid process. Social and environmental benefits were recognized, but not quantified for use in budget approvals or other financial calculations. However, Alameda County does compare the lifecycle costs of electric, hybrid, and conventional vehicles, and noted that EVs have substantially lower operational costs per mile than other vehicle types.

CAPTURE OF FEDERAL EV TAX CREDIT

The RFQ language encouraged bidders to take advantage of the federal Qualified Plug-in Electric Drive Motor Vehicle Tax Credit—up to \$7,500 for each qualifying vehicle—and pass some or all of the credit value on to participating agencies via a specific line item discount incorporated into their final bid price. Normally this federal tax credit is claimed by retail purchasers of qualifying vehicles, not by the dealer selling the vehicle. However, the credit can be claimed by “the seller of a qualified plug-in electric drive motor vehicle...to a tax-exempt organization, [or] government unit...”⁶

Bidders had the option to provide a discounted price that represented the value of the federal tax credit or a fraction thereof. Providing this discount was not required (it was an optional line item of the bid form), but bidders who did claim the credit would be more likely to be designated lowest bidder because the price evaluation was based on the net bid price, including the discount, if provided. A discount through capture of the federal tax credit was only included in the bid from one dealership (Hansel Ford), which included a discount of \$7,500 per vehicle, reflecting the full value of the federal tax credit. The inclusion of this discount was responsible for Hansel Ford winning the bid—without the discount a different dealer would have been the qualified bidder with the lowest price.

The other dealers did not incorporate the tax credit into their bid largely because of a lack of familiarity with utilizing the credit and perceived risk or inability to take full advantage of the credits. Alameda’s experience indicates that many local vehicle dealerships are unfamiliar with their ability to directly claim the federal tax credit on sales to government fleets. This perceived risk is likely higher for dealerships with little experience in fleet sales. Additionally, dealerships may see a disadvantage in passing on the value of the tax credit because they are only able to recover the credit at a future date—potentially as many as 12 months after delivering the vehicles at an initial financial loss. Dealers that separate their retail and maintenance departments and submit different tax returns may not have enough taxable income for their retail departments to be able to use the full value the federal tax credit for a large, consolidated EV order. Uncertainty regarding future availability of the tax credit due to the phase-out based on manufacturer retail sales limits did not seem to significantly affect dealers’ decision not to include the credit in their bids.⁷

⁶ See Internal Revenue Service form 8936 (2014), Qualified Plug-in Electric Drive Motor Vehicle Credit.

⁷ The dealerships’ rationale is based on the understanding of officials in Alameda County GSA—not direct statements by the dealerships.

FLEXIBILITY AND REPLICABILITY OF PROCUREMENT PROCESS

The procurement process used by the Local Government EV Fleet Project was successful in attracting bids from local vendors for the purchase of EVs, while reducing vehicle purchase administrative costs for participating fleets. Participating jurisdictions considered the model so successful that it was subsequently used for joint purchases of EV charging infrastructure and installation services, as well as for gasoline and diesel fuel purchases.

ADMINISTRATIVE EASE AND FLEXIBILITY

One key to the success of the effort was finding a way to allow each jurisdiction to use its own purchase terms and conditions while still taking advantage of a single, consolidated RFQ process. This eliminated the need for participating agencies to negotiate common terms and conditions, which would be a significant barrier to an aggregated purchase. The participating agencies signed a memorandum of understanding, which designated one agency (Alameda County) to advertise a consolidated RFQ and to conduct a bid evaluation process to choose the lowest, qualified bidder. Each participating agency was able to enter into separate purchase contracts with this designated low bidder, based on their own terms and conditions and procurement rules.

COST SAVINGS

Another goal of the procurement was to reduce net EV purchase costs by capturing the value of federal tax incentives that are not available directly to government fleets. This goal was partially met; one of the seven vendors provided a line-item discount based on vendor application of the federal tax credit. The ability to capture the federal tax credit ultimately contributed to that vendor—Hansel Ford—being declared lowest, qualified bidder, and the reduced price from the tax credit applied to 64 out of 90 vehicles purchased (one of three EV types included in the RFQ).

USE OF GRANT FUNDING

The procurement was partially funded with a \$2.8 million Congestion Mitigation Air Quality grant for the purchase of EVs, charging stations, and station installations.⁸ The CMAQ funding was managed by the California Department of Transportation (CALTRANS) and was used to pay for the incremental price

⁸ Due to its lead role in the procurement process, Alameda County received CMAQ funding for marketing, data analytics, administration, and a car share pilot. All participating agencies also received funding for the purchase and installation of EVs and charging stations in proportion to the number of EVs they planned to purchase; Alameda County received \$460,000 and \$264,000 for the purchase of EVs and charging stations, respectively, from the CMAQ grant.

difference between each jurisdiction's standard fleet vehicle and the EV, as well as the purchase and installation of supporting EV charging stations.⁹

Alameda County does not believe the availability of this funding increased vendor participation, but it was a major motivation for other jurisdictions to join the project. CMAQ funding allowed the participating jurisdictions to purchase EVs and the necessary charging infrastructure for effectively the same cost as standard fleet vehicles. The use of CMAQ funding for the Local Government Electric Vehicle Fleet Project makes this model less replicable for future procurements.

However, Alameda County has indicated that the importance of grant funding or other purchase subsidies is decreasing, as the marginal purchase price difference between EVs and conventional vehicles continues to decline and fleets realize the fuel and maintenance savings from EVs. Additionally, while CMAQ funding may not be available, many public fleets are eligible for state, regional, and local grants that may reduce the upfront cost of electric vehicles.

References

The information included in this case study is derived from project documents from the Local Government Electric Vehicle (EV) Fleet Project, including the Request for Quotation and memoranda of understanding, provided by the Alameda County GSA; as well as discussions with officials from Alameda County GSA involved in the procurement project.

⁹ At the time of the grant approval, products that satisfied CMAQ funding requirements were not yet available; the bid process was delayed until vehicles that met the requirements came online. The procurement received a partial waiver of the "Buy America" stipulation of the CMAQ grant; purchased EVs still had to be assembled in the United States.



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