



Legislation Details (With Text)

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Title: Electrification of Fleet (B)

Discuss the fleet replacement of in-town motor pool vehicles with Electric Vehicles.

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Attachments: 1. 170322A_Staff Analysis Electrification of Fleet_20180125.pdf, 2. 170322B_PPt Electrification of Fleet_20180125.pdf

Date	Ver.	Action By	Action	Result
1/25/2018	2	General Policy Committee	Approved, as shown above	Pass
8/17/2017	2	City Commission	Referred	Pass

Electrification of Fleet (B)

Discuss the fleet replacement of in-town motor pool vehicles with Electric Vehicles.

During the August 17, 2017 City Commission meeting, a referral was made to the General Policy Committee to discuss the electrification of the City fleet.

Currently, there are almost 27,000 electric vehicles (EV's) registered in the state of Florida. Only a few models are currently available but the market penetration and availability is growing quickly. The vehicles are safe, convenient and lower operating costs while demonstrating community leadership in environmental awareness. EV's use batteries to store electrical energy to power the motor. The batteries are charged by plugging the vehicles into an electric power source (charging station). EV's use no petroleum-based fuel while driving and therefore produce no tailpipe emissions.

As a pilot program, Gainesville's Fleet Management will start purchasing EV's. Since EV's have a shorter range than conventional vehicles, EV's will be purchased to replace our in-town motor pool vehicles. Six (6) units are due for replacement in FY18 and five (5) units in FY19. The Nissan Leaf will be purchased (National Joint Powers Alliance contract) and charge point station equipment will be installed.

Although the initial costs to implement an electric fleet are going to be more expensive, the total cost for maintaining and operating should be lowered during the total life cycle of vehicle. Plug-in Electric Vehicles (PEVs) will lower fuel costs and emissions; and the energy dollars will stay in our local utility which can create new infrastructure and incentives for public EV charging.

Electric vehicles have a significant maintenance and service cost reduction compared to internal combustion engines vehicles. EV's have fewer fluids to change and less moving parts to inspect and replace. There are certifications for technicians to become an EV technician. The training program will cover the high voltage

hybrid and electric vehicle technologies.

In following years, manufacturers of vehicles will have a larger selection/types of vehicles, such as trucks, vans and SUV's. Fleet will have the availability to start replacing these types of vehicles with EV's when the application works best for pure electric. Many groups, such as automakers, utilities, Clean Cities coalitions, municipalities, and government agencies are currently expanding the promotion of electric vehicles and network of charging stations. A request was received to discuss solar charging stations, the location of charging stations, and the public use of charging stations. This future discussion should include representatives from Public Works, GRU, and various community partners.

FY18 adopted Budget \$197,800 plus FY18 use of available Fleet Replacement fund balance \$118,736. FY19 adopted Plan \$150,000 plus FY19 projected use of available Fleet Replacement fund balance \$113,780. Additional expenses will include the electricity and maintenance of the charging stations, as well as training costs. There may be additional costs for underground electrical infrastructure, as well as the cost for a potential charging station at the Fleet Facility. Funding may be available through incentives, rebates, Federal funding and financing (i.e., VW Settlement).

The members of the General Policy Committee: 1) discuss the replacement of in-town motor pool vehicles with electric vehicles during FY18 and FY19; and 2) schedule a broader discussion of EV's to include the location of charging stations, public use of charging stations, potential partnerships, and renewable energy/solar charging stations.