

Board of County Commissioners Leon County, Florida

Policy No. 12-1

Title: Green Fleet Policy

Date Adopted: December 8, 2020

Effective Date: December 8, 2020

Reference: N/A

Policy Superseded: Policy No. 93-20 “Vehicle Replacement Policy” adopted on January 12, 1993; Policy No. 12-1 “Green Fleet Policy” adopted April 24, 2012

It shall be the policy of the Board of County Commissioners of Leon County, Florida, that Policy No. 12-1, “Green Fleet Policy” adopted by the Board of County Commissioners on April 24, 2012, is hereby amended, and a revised Policy is hereby adopted in its place, to wit:

In order to purchase County vehicles and equipment in a more fuel-efficient, cost-effective, and environmental-friendly manner, the criteria, which is incorporated into this Policy, will be employed by all County departments when considering replacements for County vehicles or equipment. These criteria are intended to serve as methodology for need analysis when a vehicle replacement is requested, and to downsize vehicles when appropriate. After the vehicle requested has met the criteria, the evaluation will be made by the Fleet Management Division of Public Works, with recommendations from the Green Fleet Committee. In certain categories, sub-compacts and/or compacts will replace full size units. Vehicles, which primarily transport only one driver, may be downsized to smaller, fuel-efficient units at the time of replacement where functional use allows. The State contract will be utilized as a pricing guideline.

1. Purpose

Leon County appreciates the benefits of operating the most functional, fuel efficient, and least polluting fleet available to support county operations, while at the same time being fiscally prudent in vehicle purchase and operational costs. It is important to evaluate the size and make-up of the fleet to ensure it is efficiently supporting county operations on a regular basis. It is recognized that a transition to smaller, more efficient vehicles as well as alternative fuels, hybrid or electric vehicles are options for achieving these goals.

Accordingly, it is the intent of this Policy to establish a green fleet through a process of consideration of all aspects of fleet operations that will contribute to the goals and action items set forth in the County's Integrated Sustainability Action Plan, including the following:

- 1) improved fuel efficiency;
- 2) use of cleaner technology with reduced emissions;
- 3) lowered or contained fuel costs; and,
- 4) reduced dependency on any particular energy source.

Leon County is committed to accomplish, through the implementation of this Policy, the transition of the current fleet to an environmentally, efficient "green" fleet which will make it more self-sufficient, reduce or contain fleet costs and be environmentally best for our community.

This Policy covers all Departments and Divisions under the Board of County Commissioners that have vehicles or metered equipment that operate on gasoline, diesel, or other types of fuel or energy.

2. Definitions

- a. Alternate Fuel: Any fuel other than gasoline, diesel, and other substantially petroleum-based fuels that is less polluting than gasoline or diesel fuel. Alternate fuel will include, but is not limited to, natural gas, propane, ethanol (E-85), biodiesel (B5 or higher), and electricity, etc.
- b. Alternate Fuel Vehicle: Any motor vehicle powered in whole or in part by nonpetroleum-based fuels.
- c. Bi-Fuel Vehicle: Also known as a duel-fuel vehicle. Any motor vehicle designed to operate on two distinct fuels (including "Flex-Fuel" vehicles), one of which is an alternative fuel.
- d. Biodiesel: Fuel refined from agriculturally (including vegetable and animal) derived oils that is suitable for use in diesel engines. Often blended with traditional

petroleum-based diesel in amounts connoted by the letter “B” and number (e.g., B20=20% Biodiesel and 80% petroleum diesel).

- e. Carbon Dioxide (CO₂): A standard component of conventionally powered vehicle emissions and a principal greenhouse gas.
- f. Carbon Monoxide (CO): A standard component of conventionally powered vehicle emissions.
- g. Compressed Natural Gas (CNG): Natural gas under pressure; vehicles can use natural gas as either a liquid or a gas; most vehicles use the gaseous form.
- h. Green Driving: Driving best practices that reduce fuel consumption, GHG emissions, and accident rates.
- i. Electric Vehicle: Any vehicle that uses one or more electric motors for propulsion.
- j. Emergency Medical Services Fleet: Ambulances and other vehicles used by Leon County’s Emergency Medical Services Department
- k. Fleet: Leon County’s inventory of motorized vehicles and metered equipment.
- l. Fleet Management: Division of Leon County, Public Works Department
- m. GHG: stands for Greenhouse Gas: Any of the atmospheric gases that contribute to the greenhouse effect by absorbing infrared radiation produced by solar warming of the Earth’s surface. They include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (NO₂), and water vapor.
- n. Green Vehicles: Vehicles that emit low or zero emissions; typically powered by fuels other than gasoline or diesel
- o. Heavy Duty Vehicle: Any vehicle, licensed for use of roadways within FHWA Class 6-8, having a manufacturer’s gross vehicle weight of 19,501 pounds and above. Heavy-duty vehicles include construction equipment, tractors, and dump trucks.
- p. Hybrid Vehicle: A motor vehicle that draws propulsion energy from onboard sources of stored energy that are both an internal combustion/heat engine that runs on combustible fuel, and a rechargeable energy storage system.
- q. Idling: The practice of keeping a vehicle or equipment engine running, without moving the vehicle or not using the equipment.

- r. Incremental Cost: The difference in the acquisition cost between a conventionally powered vehicle and a comparable alternative fuel vehicle.
- s. Light Duty Vehicle: Any vehicle within FHWA Class 1 or 2 with a gross vehicle weight up to 10,000 pounds. Light duty vehicles include automobiles, sport utility vehicles (SUV), vans, and small pick-up trucks.
- t. Life-Cycle Environmental Impacts: Life cycle assessment determines the environmental impacts of products, processes, or services, through production, usage, and disposal.
- u. Low Emission Vehicle (LEV): Any motor vehicle that meets or exceeds the standards set forth by the US Environmental Protection Agency for Low Emission Vehicles.
- v. Medium Duty Vehicle: Any vehicle within FHWA Class 3-5 with a gross vehicle rating of 10,001 pounds through 19,500 pounds. Medium duty vehicles include diesel powered pick-up trucks.
- w. Metered Equipment: Any powered implement that is metered for hours of use.

3. Green Fleet Team

- a. The County Administrator established a Green Fleet Team with the adoption of the Green Fleet Policy in 2012. The Team shall be comprised of, at a minimum, one representative from the following work areas: Facilities Management, Fleet Management, Department of Development Support & Environmental Management, Office of Management and Budget, Office of Resource Stewardship, and Public Works Operations.

The Team will meet as appropriate during the budget development process in the second quarter. They will meet, at a minimum, annually. The team's responsibilities include:

- 1) Remain knowledgeable of new technologies, fuels, and current fleet operation.
 - 2) Consider the potential application of alternative technology or fuels for the county's fleet
 - 3) Offer recommendations for improvements and replacements.
- b. The Green Fleet Team will work towards advancing the following goals and action items, consistent with the Integrated Sustainability Action Plan (ISAP), and supported by a quarterly review of the fleet inventory and telematics data generated by Fleet Management:

- 1) Transition the fleet inventory towards right-sized and electric vehicles and convert 30% of light-duty vehicles to fully electric based on the replacement policy in Section 6.
 - 2) Reduce total fuel consumption by 30% by FY 2030 from the FY 2015 baseline
 - 3) Ensure that all employees driving County vehicles receive green driver education, including anti-idling and fleet telemetrics.
 - 4) Monitor idle time and safe driving performance using fleet telemetrics
- c. The Green Fleet Team will continually evaluate the merits of and pilot fuel saving technologies to identify appropriate adoption by the County. Consideration will be given to opportunities to retrofit existing equipment to improve efficiency and emissions.

4. Establishing a Baseline Inventory

- a. Leon County will establish and maintain a complete inventory of the vehicles in its fleet. The inventory will include not only the type and number of fleet vehicles, but also the amount and types of fuel used, the costs associated with their use, and the corresponding emissions.
- b. The baseline year for the inventory and for the Green Fleet Policy will be Fiscal Year 2012.
- c. The baseline inventory metrics should include, at minimum, for each vehicle class and fuel or energy type the following information:
 - 1) Number of vehicles
 - 2) Average miles per gallon (mpg)
 - 3) Average time spent idling
 - 4) Annual miles driven (or annual hours of metered equipment)
 - 5) GHG emissions (i.e. carbon dioxide equivalent)
 - 6) Quantity of fuel consumed by fuel type
 - 7) Cost of fuel consumed by fuel type.
 - 6) Average vehicle trip length
- d. The baseline inventory will include the Metrics 1-6 for each vehicle class rating for Leon County on road fleet or metered-equipment class, and fuel or energy type, including, but not limited to:
 - 1) Gasoline
 - 2) E-85
 - 3) Diesel
 - 4) Biodiesel
 - 5) Compressed natural gas
 - 6) Electricity (i.e. kWh taken from the grid)

5. Implementation Strategies

- a. **Vehicle Purchase:** The goal of purchasing low emitting fuel efficient vehicles and equipment for both vehicle replacement and additions to the fleet where practicable and reasonably cost competitive.
- b. **Optimum Fleet Size:** Only vehicles that have a recognized need and demonstrated use will be maintained. There will be periodic reviews with recommendations to the County Administrator.
- c. **Vehicle Specifications:** Prior to the purchase of any new vehicle or equipment, the user department will develop specifications with the Fleet Manager and fill out a vehicle survey to ensure appropriateness for its mission. Life cycle costs, standardization, ease of use, vehicle size, and emissions quality are several of the issues that need to be addressed.
- d. **Vehicle Maintenance:** There will be evaluation of the maintenance practices for all types of equipment. This includes consideration of frequency, supplies, fluids, and tires. This has important impact on the equipment's efficiency, miles per gallon, costs of fuel, and reduced emissions.
- e. **Vehicle Technology:** A primary goal of this Policy is to change fleet equipment from high pollution, low-mileage petroleum-based fuel equipment to clean, more efficient, higher mileage, and alternative fuel use equipment. Currently, technology is transitioning to hybrid, full electric, and hydrogen equipment. Research will refine these and offer others in the future.
- f. **Fuel:** A primary goal is to use a highly efficient, clean readily available fuel(s) to operate all types of equipment in the fleet. There is merit in the use of several alternative fuel types to avoid reliance on one source and, possibly, disruptions in the supply chain.

Among fuel or energy sources to be considered for the fleet are biodiesel, E-85, CNG (compressed natural gas), propane, hybrid, electric, and combinations. The intent is to phase out or "retire" conventional, fossil-fuel vehicles.

- g. **Fuel Sources:** To secure reliable and cost contained fuel sources.

6. Vehicle Acquisition & Replacement Guidelines

- a. Prior to the acquisition of any replacement vehicle, the following purchasing values will be considered and carefully examined by the Green Fleet Team:
 - 1) Repair costs exceed 2/3 of the acquisition cost
 - 2) Life cycle cost
 - 3) Frequency of use (utilization)

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- 4) Justification for the vehicle
 - 5) Safety and repair record
 - 6) Impact on technician's workload
 - 7) Electric, hybrid or alternative fuel vehicle availability or preference
- b. Prior to the acquisition of any new vehicle, the following purchasing values will be considered and carefully examined by the Green Fleet Team:
- 1) Frequency of use (utilization)
 - 2) Suitability for intended job
 - 3) Fuel efficiency and vehicle size
 - 4) Electric, hybrid, or alternative fuel vehicle availability or preference
 - 5) Initial and long-term cost
- c. For each vehicle class there will be a minimum efficiency standard in miles per gallon established by Fleet Management. This will be used during the consideration of vehicle replacements as well as for new vehicle acquisitions.
- d. Fleet Management will make every effort to purchase and use the lowest emission vehicle or equipment item possible, while taking into account the vehicle's lifecycle costs, miles per gallon, life cycle environmental impacts, and ability to support Leon County's operation and services. This will be achieved through the utilization of the green fleet committee and the monitoring of the objectives.

7. Green Driving and Driver Education

a. Green Driving

- 1) Leon County will implement an anti-idling policy that will apply to County vehicles operated by Leon County. Performance shall be measured by County vehicle telemetric software. The objectives of this Policy are:
 - a) To eliminate unnecessary idling of vehicles in order to reduce the community's exposure to exhaust from gasoline and diesel engines and reduce unnecessary consumption of fuel and emission of greenhouse gases.
 - b) To educate and inform County employees about the health and environmental effects of gasoline and diesel exhaust.
 - c) Employee idling times should be routinely reviewed by managers using fleet telemetrics software. Employees with high idle times should be addressed through the established HR policy regarding the telemetrics software.

- 2) It will be the policy of Leon County to minimize unnecessary idling of County vehicles and equipment to reduce CO₂ and other greenhouse gas emissions, conserve fuel, and reduce maintenance and fuel expenses associated with excessive idling.

All County employees will take actions to reduce fuel consumption as follows:

- a) When employees arrive at a job site, they are required to turn off their vehicles as soon as practical to eliminate idling time and reduce excess consumption of fuel.
- b) Vehicles will not be restarted until all passengers are ready to depart, or work is ready to resume.
- c) Equipment will be turned off when inactive or not in use.
- d) No driver of a County owned vehicle will cause or allow the vehicle to idle for a period of more than five (5) minutes.
- e) Exemptions: this idling policy shall not apply when:
 - i. A vehicle is forced to remain motionless because of traffic or adverse weather conditions affecting the safe operation of the vehicle.
 - ii. A vehicle is being operated for emergency purposes.
 - iii. The primary propulsion engine of a vehicle is being operated to supply heat or air conditioning necessary for passenger comfort/safety.
 - iv. The primary propulsion engine of a vehicle meets all of the following criteria:
 - a. Is providing a power source necessary for mechanical operations other than propulsion; and
 - b. Involves a power take off (PTO) mechanism, or other mechanical device performing the same function as a PTO; and
 - c. Is powered by the engine for:
 1. Loading and unloading cargo, or

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2. Mixing or processing cargo, or
 3. Controlling cargo temperature, or
 4. Providing a mechanical extension to perform work functions
- f) Vehicles will not idle for purposes of “warming up” the engine, except where the manufacturer’s operating instructions require or recommend it, or where it is necessary to defrost windows and make the vehicle safe for driving and occupancy.
- g) EMS/Public Safety vehicles are exempt from this Policy.
- b. Driver Education
- Leon County will develop an employee education program designed to instruct drivers of county vehicles in best green driving practices. The topics will include fuel usage/conservation, maintenance, using alternatives to driving, defensive driving, and education on vehicle idling. Driver education will also include a description of fleet telematics, including vehicle speed, idle time, direction, and safe driving metrics. The use of this program will reduce incidents, which in turn will reduce the cost of vehicle insurance.

8. Exemptions

- a. The County Administrator or designee may grant an exemption from the requirements of this Policy under any one of the following circumstances:
- b. Where the analysis demonstrates to the satisfaction of Fleet Management that any amortized additional incremental cost of purchasing a lower emission vehicle that complies with the requirements of this Policy cannot be recovered over the operational life of the vehicle or metered equipment through a reduction in fuel, maintenance, and other costs incurred during the operating life of such vehicle or equipment; and
- c. New emergency vehicles purchased under this Policy must provide comparable performance, safety, and fuel availability during emergencies as conventionally powered emergency vehicles.

Revised December 8, 2020