

CITY OF COLUMBUS
DIVISION OF FLEET
MANAGEMENT

GREEN FLEET ACTION PLAN 2019-2021

2019 Mid-Year Update



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF FINANCE
AND MANAGEMENT

INTRODUCTION

Recognizing the role a healthy environment plays in contributing to the City of Columbus' reputation as an Opportunity City, the City has established the Sustainable Columbus initiative. This initiative, under the leadership of Columbus Mayor Andrew J. Ginther, focuses on optimizing city operations and working with external stakeholders to enhance and promote environmentally friendly policies throughout our community. As part of our sustainability initiatives, Fleet Management developed a green fleet action plan, which serves as a road map to greening our city's fleet. This is now the fourth update of this plan, which builds upon our successes while strengthening our ongoing efforts to reduce our carbon footprint.



AWARDS

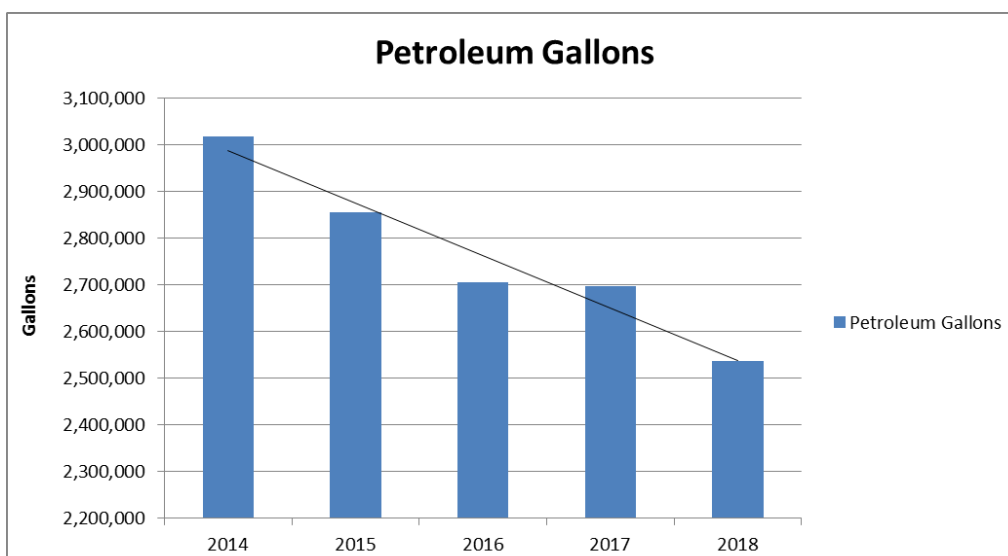
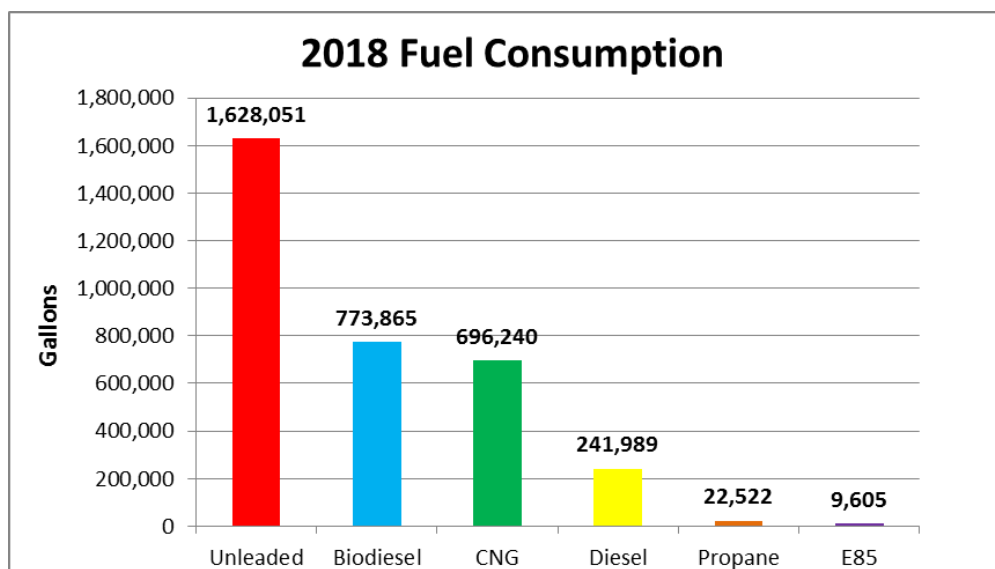
Columbus Fleet Management continues to be a front-runner in the nation in building a sustainable fleet. The past several years have yielded significant accomplishments toward this end goal, including:

- City of Columbus named the #1 Greenest Fleet in North America by Government Fleet
- City of Columbus awarded the #1 Leading Fleet in the U.S., due largely to our alternative fuel program - now considered an “elite” fleet and sits on the judging panel for Government Fleet
- Awarded one of Heavy Duty Trucking’s Top 50 Green Fleets every year from 2013-2018
- Six Columbus divisions (Fleet Management, Refuse Collection, Facilities Management, Infrastructure Management, Sewerage and Drainage, and the Division of Police) are all certified as Ohio Green Fleets
- Received the 2012 Sustainability award from Government Green Fleets
- Awarded the “Clean Fuels Champion” statewide award by Clean Fuels Ohio in 2008 and again in 2011
- Environmental Stewardship Award (2009) presented by Government Fleet Magazine, Bobbitt Publishing for public sector fleets in the USA



DIVISION OF FLEET MANAGEMENT

- The City of Columbus Fleet Management Division maintains over 6165 pieces of equipment
- Approximately 3030 are on-road vehicles, i.e., cars, trucks, SUVs, etc.
- Approximately 3135 are off-road, e.g. construction equipment
- Over half (54%) of Columbus' on-road fleet are some type of alternative fueled vehicle
- 3,372,271 total gallons of fuel were consumed in 2018 (including all alternative fuel). Fuel breakdown below
- Petroleum fuel use has steadily declined since sustainability initiatives have been put in place - 27% reduction since 2010



GREEN ACTIONS 2019-2021

As part of its commitment to the American Cities Climate Challenge and to meet the goals of the Paris Agreement, Columbus has committed to reducing greenhouse gas emissions by 30% from City operations by 2020. In order to help meet this goal, the main objective of Columbus' green fleet plan is to reduce our overall fleet emissions. Our efficient management of fuel consumption and increase in the overall efficiency of the fleet has driven down our greenhouse gas emissions over the last few years. From 2015-2017, Columbus reduced our fleet emissions by **14%**.

One of the most effective ways to drive down fleet emissions is to reduce petroleum use. From 2010-2018, city fleet vehicles reduced petroleum use by almost **27%** (almost 920,000 gallons). We expect this trend to continue with the yearly addition of CNG and electric vehicles to our fleet as well as our continued use of biodiesel, E85 and propane fuels. We also continue to refine and enhance “green” procurement policies; to work with city agencies to right-size and downsize their fleets; promote the anti-idle policy and install anti-idle technology where possible, and utilize GPS and AVL telematic technologies. Following are the actions and targets Columbus will utilize to reduce petroleum use and achieve emission reductions over the next three years.

Action: Increase light duty vehicle purchases that are considered green

- **Target:** 75% each budget year

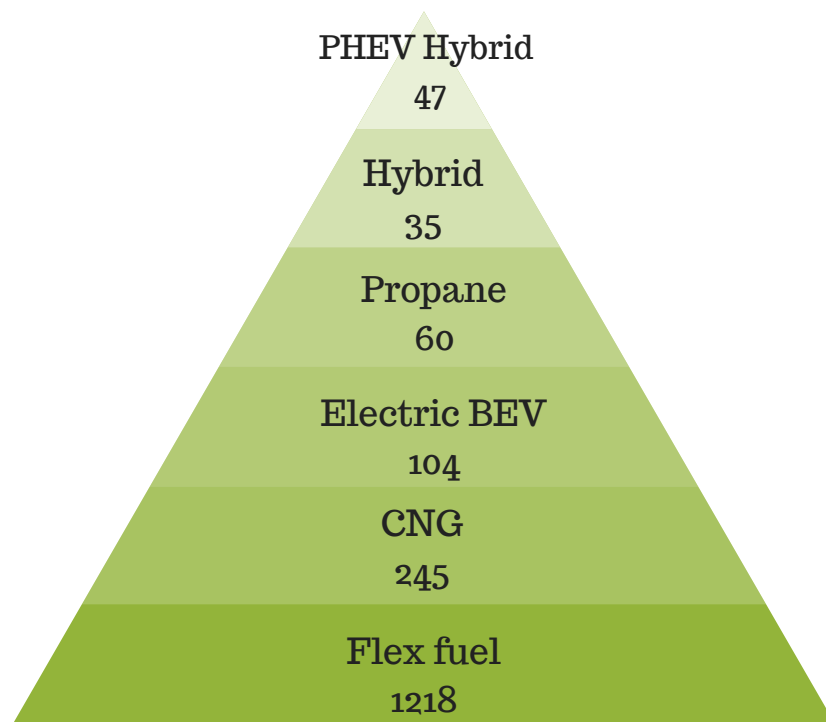
“Environmentally preferable purchasing” policy - Fleet will continue to review all vehicle specifications in conjunction with the end user agency and the Purchasing Office to ensure the most “green” vehicles possible are being specified and will continue to meet with City divisions to review purchase requests in order to right-size vehicles for their intended purpose.

Electric vehicles - Fleet Management continues to implement its portion of the Smart Columbus initiative which includes the addition of 200 electric vehicles to our fleet by 2020, along with implementing the necessary charging infrastructure.

2019 mid-year update: So far in 2019, Columbus has purchased 139 light duty vehicles. Of these, 64, or **46%**, have been green vehicles. The majority of green light duty vehicle purchases have been battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs). As part of Phase 3 of the Smart Columbus initiative, Fleet recently ordered an additional 58 BEVs and PHEVs for use by various city departments, with another 17 ordered by various divisions. These 75 vehicles are expected to begin arriving by late fall this year. Columbus currently has 125 of the 200 Smart Columbus electric vehicles in service.



Number alternative fueled vehicles in Columbus fleet: **1709**



Action: Increase heavy duty vehicle purchases that are considered green (excluding Safety vehicles)

- **Target: 80% each budget year**

Compressed Natural Gas (CNG) vehicles - Fleet will continue to enforce the City's "environmentally preferable purchasing" policy and continue to review all vehicle specifications to ensure that green options are included where feasible on heavy duty vehicles. CNG vehicles will likely comprise the majority of "green" heavy duty purchases in the coming years. Fleet Management will work closely with divisions to purchase CNG vehicles that will keep pace with fueling infrastructure while continuing to meet operational need. All heavy duty purchases will be targeted for CNG when possible, as heavy duty vehicles are the largest consumers of fuel and therefore yield the greatest return on fuel savings and reduced emissions.

2019 mid-year update: So far in 2019, Columbus has purchased 12 heavy duty vehicles. Of these, 7, or **58%**, have been green vehicles. The majority of green heavy duty vehicle purchases have been CNG vehicles.



Action: Utilize anti-idling technology where feasible

- **Target:** 25% reduction in idle time when utilized

GRIP - Columbus has installed anti-idling technology, known as GRIP units, on approximately 300 new police cruisers since 2015. These devices allow the cruisers to reduce idling, thereby significantly reducing fuel consumption. The technology stops and restarts a cruiser automatically without affecting the on-board power needs that are essential to operate computers and radio communications.

The cumulative totals include a life-to-date reduction in idle time of approximately 33%, or 346,050 hours, which equates to saving approximately 11,419,719 miles on the cruisers by avoiding wear and tear on the engines. The GRIP system has saved an estimated 152,262 gallons of fuel and reduced carbon emissions by 1,355 metric tons since being installed in 2015, the equivalent of removing 250 passenger vehicles from the road.

Action: Implement green off-road options where equipment is available and fits the application

- **Target:** Continue to explore propane and electric options for off-road equipment

Fleet Management will work with divisions to explore available green off-road options, and will also work with our Purchasing Office to include green options in off-road equipment specifications.

Propane - Columbus currently has 52 propane mowers in service, for use mainly at municipal golf courses and parks. Mowers continue to be replaced with propane when available. We also have 6 propane powered forklifts and one propane floor sweeper.

Electric - Fleet has several electric utility carts in use around our Groves Road facility and additional carts on order for other locations. The utility carts come equipped with flat beds and are able to haul 6,000 pounds of load as well as tow. These carts all replace gasoline powered units.



Next Steps

Achieving these targets and reducing our emissions from fleet operations will require the participation of all City departments and divisions. The Fleet Management Division, with support from the Director of Finance and the Mayor's Sustainable Columbus initiative, will take the lead in implementing these actions and will track the progress of the targets. Updates will be provided at mid-year and year end to outline the activity that has taken place. We expect this document to be fluid- new technology, new grant opportunities, funding challenges, etc. are constantly happening. Every effort will be made to take advantage of the best options available to make our fleet as sustainable as possible while minimally impacting City operations.



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