

Division of Fleet Management

Green Fleet Action Plan

2015-2018

2015 Year-end update

THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF FINANCE
AND MANAGEMENT



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Section 1: Introduction

Columbus Fleet Management continues to be a front-runner in the nation in “greening” our environment. The past several years have yielded significant accomplishments toward this end goal, including:

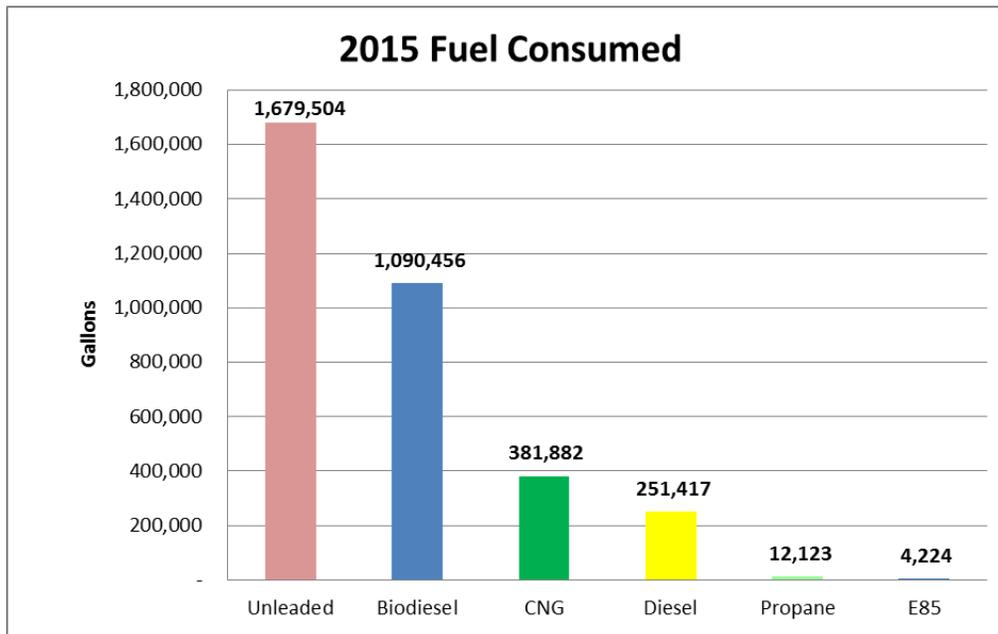
- City of Columbus awarded the #1 Greenest Fleet in North America by Government Fleet in 2011- now considered an “elite” fleet and sit on the judging panel for Government Fleet
- Awarded one of Heavy Duty Trucking’s Top 50 Green Fleets for 2014
- Received the 2012 Sustainability award from Government Green Fleets
- Awarded the “Clean Fuels Champion” statewide award by Clean Fuels Ohio in 2011
- Three Columbus divisions (Public Service’s Planning and Operations Division and the Refuse Division, as well as Public Utilities’ Sewerages and Drainages Division) are all certified as Ohio Green Fleets
- Environmental Stewardship Award (2009) presented to Mayor Coleman by Government Fleet Magazine, Bobbitt Publishing for public sector fleets in the USA

In 2008, former Mayor Coleman issued the City’s first Green Fleet Action Plan (available at www.getgreencolumbus.com). This plan addressed the management, operation and procurement of Columbus fleet vehicles in order to improve vehicle energy efficiency and reduce emissions. Since its’ implementation, Columbus has realized multiple green fleet successes including significant petroleum reductions, an increase in green vehicles in our fleet and the implementation of a CNG initiative including creating and building a CNG infrastructure. The plan is now in its third update, with new targets going through 2018.

This 2015-18 updated plan is a continuation of the original plan and builds upon our successes while strengthening our efforts to reduce our carbon footprint. This document supports the vision for a Green Columbus: Beautiful. Healthy. Prosperous.

Section 2: City of Columbus Facts

- The City of Columbus Fleet Management Division maintains over 6280 pieces of equipment
 - Approximately 3159 are on-road vehicles, i.e., cars, trucks, SUVs, etc.
 - Approximately 3128 are off-road, e.g. construction equipment
- 3,419,607 gallons of fuel were consumed in 2015. Fuel breakdown in 2015 includes:



Section 3: Green Objectives 2015-2018

1. Reduce petroleum use by Columbus fleet vehicles

- **Measure:** Total annual City petroleum use (includes **only** petroleum fuel- does not include “green” fuels - bio fuels, ethanol, CNG, etc.)
 - **Target: Reduce annual petroleum use by 25% compared to 2014 levels by the end of 2018**

Accomplish through: Since 2010, city fleet vehicles have reduced petroleum use by almost 13%. We expect this trend to continue with the yearly addition of CNG vehicles to our fleet and our continued and increased use of flex fuel, hybrid and electric vehicles as well as our increased use of CNG, biodiesel 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.

2015 Year end update: In 2015, city vehicles consumed 2,855,848 gallons of petroleum fuel, **5.4% less** than total petroleum consumption in 2014.

2. Increase the number of green vehicles in Columbus' fleet

Total "green" vehicles in Columbus fleet:

| Vehicle Type | # of vehicles/equipment Beginning 2015 | # of vehicles/equipment year end 2015 |
|--------------|--|---------------------------------------|
| CNG | 116 | 167 |
| Hybrid | 16 | 17 |
| Electric | 10 | 7 |
| Flex fuel | 834 | 1011 |
| Propane | 20 | 35 |
| Total | 996 | 1237 |

- **Measure:** Light duty vehicle purchases that are considered green
 - **On-going Target: 50% each budget year**

Accomplish through: Continue to enforce "environmentally preferable purchasing" policy, 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 continue to meet with City divisions to review purchase requests in order to right-size vehicles for their intended purpose.

2015 year end update: In 2015, Columbus purchased 221 light duty vehicles. Of these, 156 or **71%**, were green vehicles. The majority of green light duty vehicle purchases were flex fuel.

- **Measure:** Heavy-duty truck purchases that are considered green (excluding Safety vehicles)
 - **On-going Target: 80% each budget year**

Accomplish through: Continue to enforce "environmentally preferable purchasing" policy and continue to review all vehicle specifications to ensure that green options are included where feasible. 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.

2015 year end update: In 2015, Columbus purchased 109 heavy duty vehicles (excluding Safety). Of these, 91 or **83%**, were green. Of the 91 heavy duty purchases, 52, or 57%, were CNG.

- **Measure:** Off-road equipment that is considered “green”
 - **Target:** Implement “green’ off road options where equipment is available as the application fits.
 - **Target:** Convert gasoline powered carts to electric where feasible. Explore funding options to install electric charging stations

Accomplish through: Fleet Management will work with divisions to explore available green off-road options such as propane mowers and electric golf carts at city-owned golf courses and implement where operationally effective. Fleet will explore the possibility of funding the capital needs to install electric cart charging stations. Fleet will also work with Purchasing to include green options in off-road equipment specifications.

2015 year end update: Columbus added 13 propane mowers to our fleet for use by Recreation and Parks in 2015. Through a purchase incentive program offered by the Propane Education and Research Council (PERC), the City received a \$1000 incentive for nine of the mowers purchased (total \$9,000) in exchange for providing one season worth of data to PERC for research purposes. Columbus is also participating in a propane golf equipment research program with R & R Products and PERC. R & R has provided, at no cost to the city, four pieces of new propane golf course mowing equipment for use at the Airport Golf Course during the research testing period (one mowing season). In exchange for data provided by the city, we will have the option to purchase the equipment at a depreciated 55% discount rate at the end of the program. Columbus used **12,123** gallons of propane in 2015, which qualify for **\$6,062** in federal tax credits.

- **Measure:** Electric vehicle use
 - **Target:** Explore electric vehicle options and infrastructure available and viable to the City of Columbus operations; explore cost and funding opportunities

Accomplish through: The City of Columbus developed an electric vehicle readiness plan with help from the *Project Get Ready* community network. The plan outlines the ideal locations for vehicle charging stations. A Department of Energy grant obtained through project partner Clean Fuels Ohio allowed the city to install two of these stations for use by the public that are currently operational. Fleet Management will continue to work with divisions to identify opportunities for electric vehicle use that fit the vehicle’s operational requirements.

2015 year end update: No additional electric vehicles were added to the city’s fleet in 2015. However, Fleet continues to work with divisions to try and identify

opportunities for electric vehicle use and expects to dedicate much of our green efforts to exploring electric vehicles in 2016.

3. Expand CNG fueling infrastructure

- **Measure:** Increase the number of city-owned CNG fueling stations
 - **Target:** 3rd CNG fueling station open and pumping fuel by 2nd Q 2016
 - **Target:** Explore option for 4th CNG fueling station downtown

Accomplish through: The City's first CNG station has been open and operating on Groves Road since April 2012. In addition to City agencies, this station is accessible to the public via Visa/MasterCard payment. Phase 3 of this station is planned for 2015/16 with the addition of another set of compressors, which will double the current pumping ability. The City's second CNG station on Morse Road near Cleveland Avenue opened in July of 2014 and is also open to the public via Visa/Mastercard payment.

Property for Columbus' third CNG station has been purchased on the west side of the city and design of the station is underway. Construction is expected to be ready to bid by 2nd quarter of 2015, with a goal of pumping fuel by second quarter 2016.

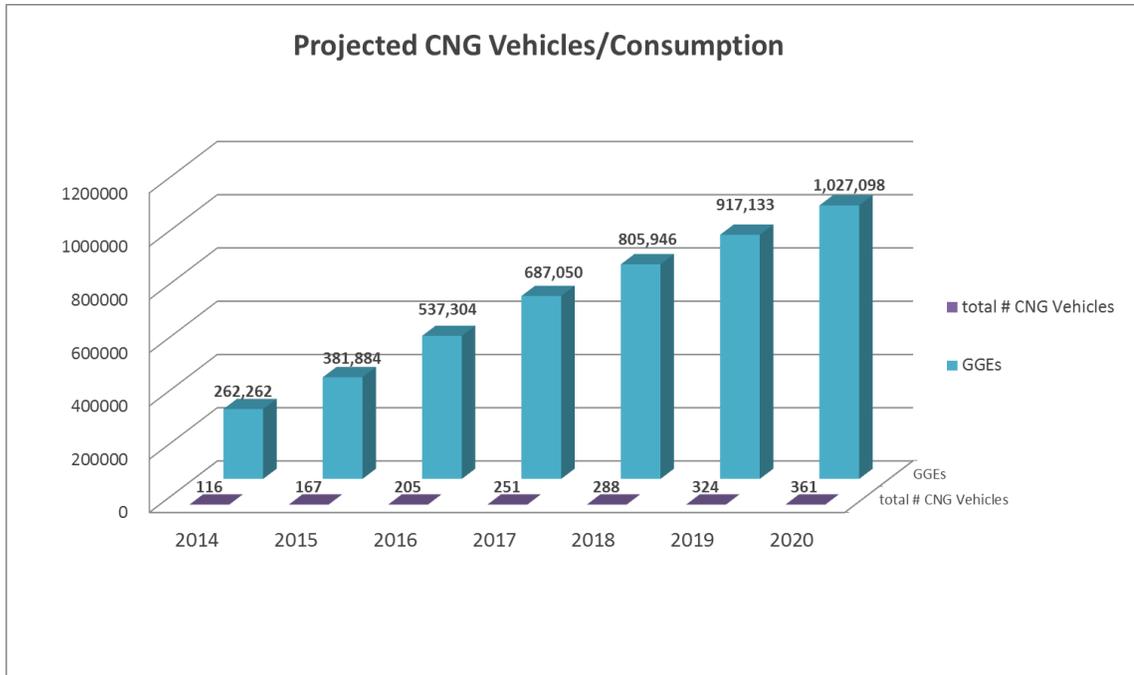
Columbus is currently exploring the option of a fourth CNG station in the downtown area, with a target of being able to bid the design by early 2015.

2015 year end update: Design is underway on the West side CNG station on Krieger Court. Due to a switch in the city's purchasing system to electronic bidding, the construction bid has been delayed and is now projected to be ready to bid by February. The station is expected to be open and pumping fuel by the end of 2016. Design has also begun on the city's fourth CNG station in the downtown area. In 2015, Columbus finalized its partnership with COTA to expand their current CNG fueling facility to give Columbus vehicles access at the McKinley Avenue fuel station. This station is also expected to be pumping fuel by the end of 2016.

4. Expand numbers of CNG vehicle fleet

- **Measure:** Increase the number of CNG vehicles in the City's fleet
 - **Target:** As fueling infrastructure grows, implement strategy for increasing the number of CNG vehicles to keep pace with infrastructure growth

Accomplish through: Fleet Management has been and will continue working with City Departments to project CNG vehicle purchases through 2020 that will keep pace with fueling infrastructure. Based on replacement criteria and the availability of future CNG fuel, prospective projections for CNG vehicles and fuel consumption are as follows:



2015 year end update: Columbus added 52 CNG vehicles to our fleet in 2015, bringing our year-end CNG vehicle total to 167. City vehicles consumed 381,884 gges of CNG in 2015, saving over **\$111,000** compared to the average cost of diesel. Total CNG fuel pumped by city stations in 2015 was 612,802 gges, which qualify for over **\$306,400** in federal tax credits. Fuel savings and tax credits combined total over **\$417,000** for the city. Public retail sales at the CNG North station comprised 52% of total sales in 2015, while 27% of sales at the Groves Road station were to public customers. In order to increase our retail fuel sales, Fleet is discussing the possibility of offering volumetric pricing to retail customers, and City CNG stations will soon be accepting four additional types of credit cards.

Section 4: Next Steps

Achievement of these goals and targets will require the cooperation and participation of all City department and divisions. The Fleet Management Division, with support from the Environmental Steward's Office, will take the lead in implementing these initiatives 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 green our fleet, while minimally impacting City operations.