

Electrifying the Fleet

NYC Fleet

Update on Electrification for US Postal Service

Keith T. Kerman

NYC Chief Fleet Officer

Deputy Commissioner, DCAS

January 31, 2023

NYC Fleet



NYC Fleet: Clean Fleet and Sustainability

Updated NYC Clean Fleet Plan

[HERE](#)

EO 53: All Electric and Safe Fleet

[HERE](#)

EO 90: Accelerating Electric Fleet Adoption

[HERE](#)



**2021 Clean
Fleet Update**

September 2021



Clean Fleet Transition Plan, EO 53

Clean Fleet Transition Plan

NYC Department of Citywide Administrative Services (DCAS) Fleet

U.S. DOT Volpe National Transportation Systems Center: Alexander Epstein, Ph.D., Scott Lian, Ana Vargas, Andrew Breck, and Brian Xi

New York City Department of Citywide Administrative Services: Keith Kerman and Eric Richardson

[HERE](#)



Fall 2022

DOT-VNTSC-DCAS-22-01

Prepared for: Department of Citywide
Administrative Services, City of New York

NYC DCAS
Citywide Administrative Services

Section 2. Clean Fleet Design and Electrification. The Department of Citywide Administrative Services (DCAS) and NYC Fleet will issue, implement and update a Clean Fleet Transition Plan (CFTP). This plan will be updated at least every two years. The plan will outline alternative fuel, fuel efficiency, and electrification requirements for all City fleet units by type. The plan will also review fuel efficiency and emissions reductions outfitting that is implemented for specific fleet segments only and/or being tested. As part of the plan, the City will report on electrification and charging options for each class of fleet vehicle. The plan will include a schedule for adoption of cleaner vehicles and technologies which will lead to a fully-electric, carbon-neutral fleet by 2040. In addition to City fleet agencies, DCAS will consult with private, non-profit and other public fleets that operate in NYC on this plan. The plan will include a section discussing options for requiring and/or encouraging adoption of these clean fleet improvements with the private fleets the City contracts and regulates. The first CFTP plan aimed at both public and private fleets will be published by January 1, 2021.

U.S. Department of Transportation
Volpe Center

NYC
DCAS
Citywide Administrative
Services

Electrifying a Complex On and Off-Road Fleet

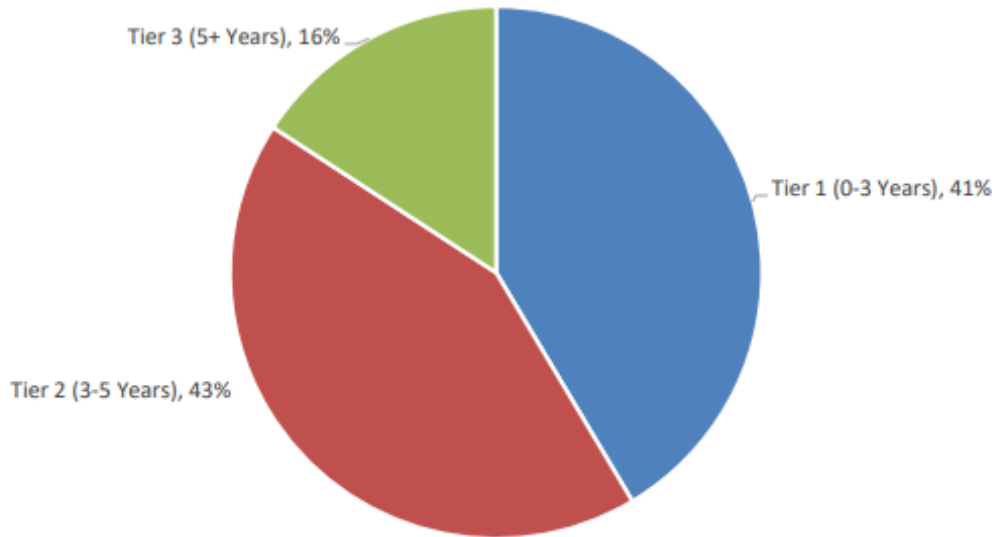


Figure 1. Percent of On-Road NYC Fleet Units by Assigned CFTP Tier

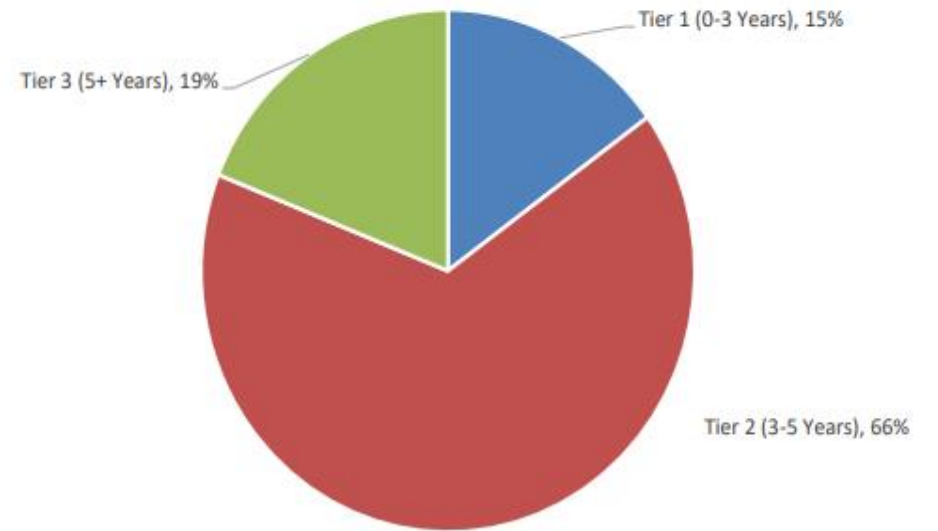


Figure 2. Percent of Fueled Off-Road NYC Fleet Units by Assigned CFTP Tier

EV Investment Announcement



Vehicles Include Electric Transit Vans and Pick-Up Trucks for Agencies Citywide, and Electric Refuse Trucks and Hybrid Plug-In Street Sweepers for DSNY

New Investments in Electric Vehicle Fleet Made Possible by \$10.1 Million in Federal Grant Funding

[HERE](#)

Mayor Adams Announces Nearly 1,000 new Electric Vehicles to Replace Fossil Fuel-Powered City Fleet Vehicles, Deployment of new EV Charging Infrastructure

January 4, 2023

Electric Fleet

NYC Fleet Electric Vehicles

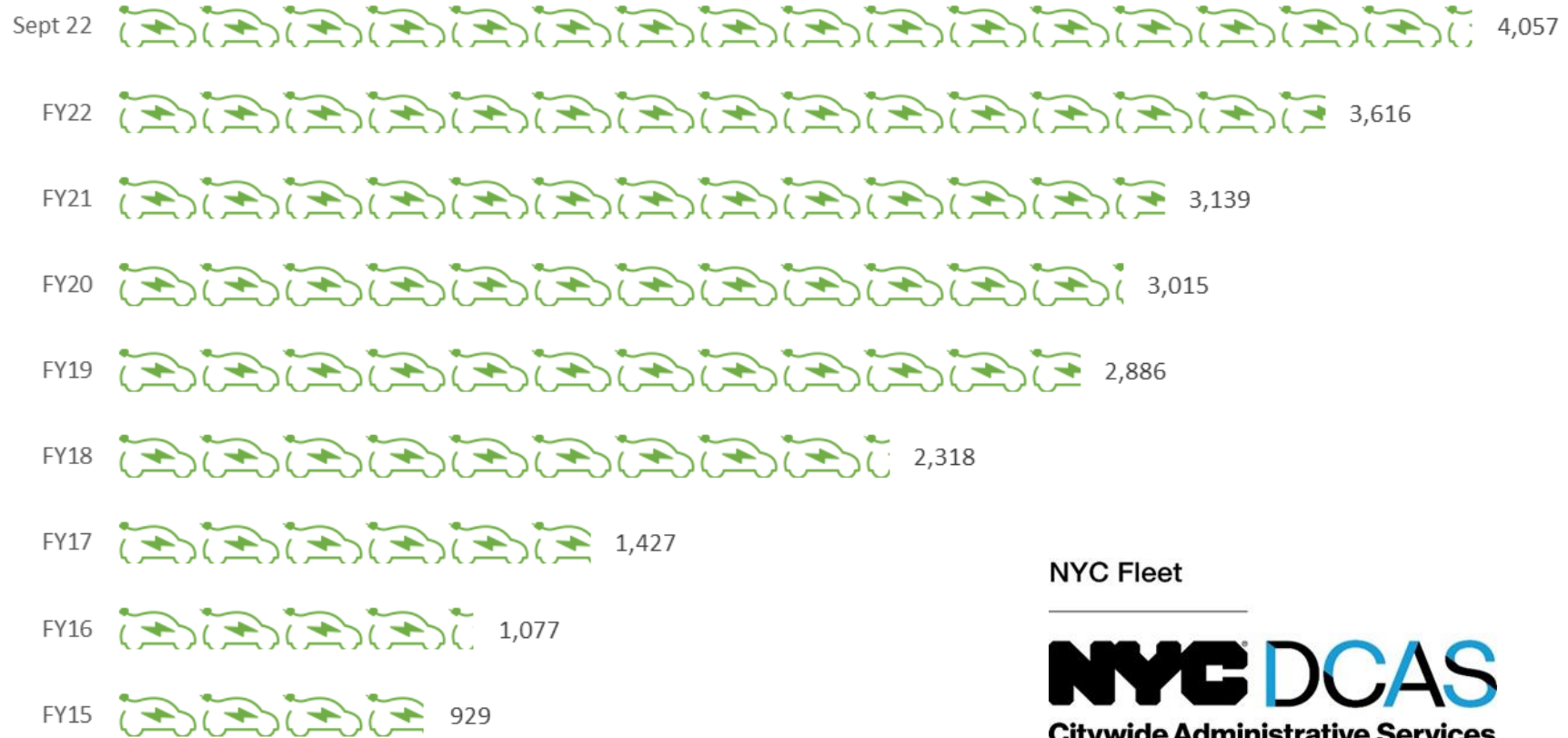


Image from vecteezy.com

NYC Fleet



EV Light Duty



EV for Law Enforcement

NYC orders nearly 200 Mustang Mach-Es for police and first responders

'A critical step towards our goal of a fully electric fleet'

By Makena Kelly | @kellymakena | Dec 30, 2021, 12:28pm EST



All Electric Medium Duty



DSNY Pilot EV Garbage Truck



World's First EV Street Sweepers



Our First Electric School Buses



All electric school bus law

[HERE](#)

NY's Largest EV Charging Network

Google Maps

NYC DCAS
Citywide Administrative Services

NYC Fleet EV Charging Network as of January 2023



Total 1,409 Electrical Charging Ports

- 1020 Level 2 Charging Ports
- 107 Solar Carports + 3 Solar Public Charging = 110 Total Solar Carports
- 110 DC Fast Chargers + 11 DC Fast Public Charging = 121 Total DCFCs
- 7 DOT Municipal Level 3 Chargers
- 38 DOT Municipal Level 2 Chargers
- 112 DOT Level 2 Curbside Chargers
- 1 Mobi Mobile Charger

NYC DCAS
Citywide Administrative Services

Dawn M. Pinnock, Commissioner
Keith T. Kerman, Deputy Commissioner
and Chief Fleet Officer

NYC Fleet Newsletter

March 14, 2022 - Issue 383

DCAS Launches Installation of 200 New EV Fast Chargers

By: Keith T. Kerman

In December 2020, DCAS completed its first 100 electric vehicle (EV) fast charger installations, stemming from a capital project launched in May 2019. Currently, Fleet operates 103 50-kilowatt fast chargers at 12 agencies. This includes 11 sites hosted by NYC Parks and DCAS that are open to the City's fleet and also to the [general public](#).



DCAS has now received the green light to begin the installation of an additional 200 fast chargers on City-owned agency sites. This is part of a long-term plan to have 1,776 EV fast chargers operational by 2030, as we move to an all-electric fleet. The target date for project completion is Dec. 31, 2023. DCAS got the first project done on time and on budget and will work to install twice as many chargers in the same timetable for this second phase.

At the end of this project, 15 agencies will be operating fast chargers. Where the site configurations allow, additional NYC Parks and DCAS locations will be operated as general EV charging hubs.

11 Public Charging Sites [HERE](#)

EV Charging, Level 2, Fast, Solar



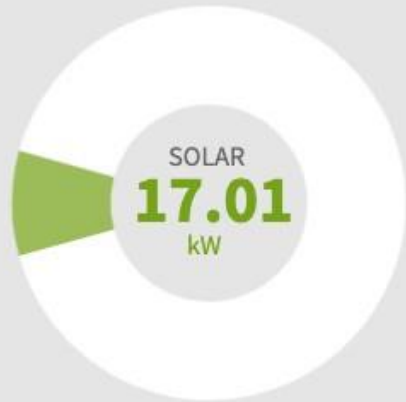
First Solar Canopy for EV Charging



Fleet as Producer of Power



CURRENT PROFILE TIME : 07/09/2020 15:50



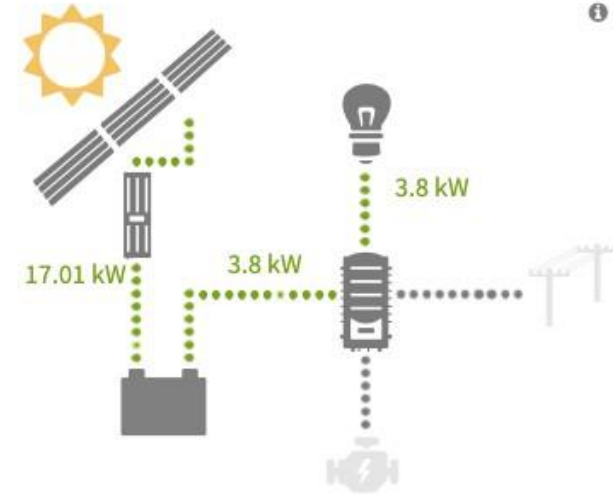
Right Now, You are

PRODUCING

Solar 17.01kW

Load 3.8kW

POWER FLOW



The Day Of



07/09/20



TODAY

● Solar
199kWh

● To Load
16.6kWh

First Curbside Charging



Equipment Resiliency and Backup Power



Reducing Maintenance Costs with EV

[HERE](#)

AXIOS

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Mar 19, 2019 - Energy & Environment

EV maintenance costs in NYC run lower than gas-powered cars



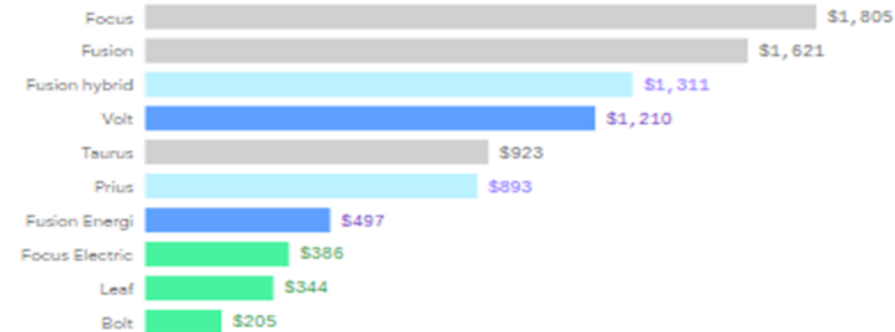
Ben German, author of [Generale](#)



The New York City government's maintenance costs for its electric vehicle fleet were much less per automobile than its gasoline-powered cars, city data released this month shows.

Average maintenance cost for NYC municipal vehicles in 2018

By car energy type: Gasoline Hybrid Plug-in hybrid Electric



Data: [NYC Department of Citywide Administrative Services](#); Chart: Andrew Witherpoon/Axios

Why it matters: Municipal and corporate vehicle fleets are a growth area for EVs, and not just for environmental reasons. That's the upshot of the latest edition of a newsletter I'd never seen until yesterday: the [NYC Fleet Newsletter](#) from Citywide Administrative Services.

Training Mechanics and Emergency Responders



Dawn M. Pinnock, Commissioner
Keith T. Kerman, Deputy Commissioner
and Chief Fleet Officer

NYC Fleet Newsletter

February 4, 2022 - Issue 379

GM Conducts Electric Vehicle Training for City Mechanics

By: Keith T. Kerman

With 2,398 on-road and 793 off-road electric and solar units in operation, and 978 plug-in replacement units on order, New York City's electrification of the City fleet is well underway. Through the transition, our fleet staff are adjusting to the new maintenance and servicing methods that these vehicles need.

Electrification is a major transition for operators and agencies alike, as electric vehicle (EV) charging and range management take on critical importance. However, in the long run, [EVs hold the prospect of greatly reduced maintenance costs](#) compared to their gas powered counterparts, and NYC's fleet staff are critical to supporting this transformation.

Our City's 1,333 mechanics and service workers will be adjusting to new maintenance, servicing, and crash management requirements. All this entails—battery management, crash protocols, charger servicing, and regenerative braking—will pose new dimensions for the City's servicing professionals. To date, our City's mechanics have met every challenge with sustainable fleet options, including biofuels, hybrids, natural gas, and our early electric efforts, so we have no doubt this transition will be successful.

[HERE](#)



Hybrids and More Efficient Vehicles

CBS2 Rides Along In NYPD Highway Unit's New Hybrid SUV

Program: CBS2 News At 5 Categories: Automotive, News, Local News, WCBSTV



Biofuels and a Low Carbon Fuel Standard



CASE STUDY

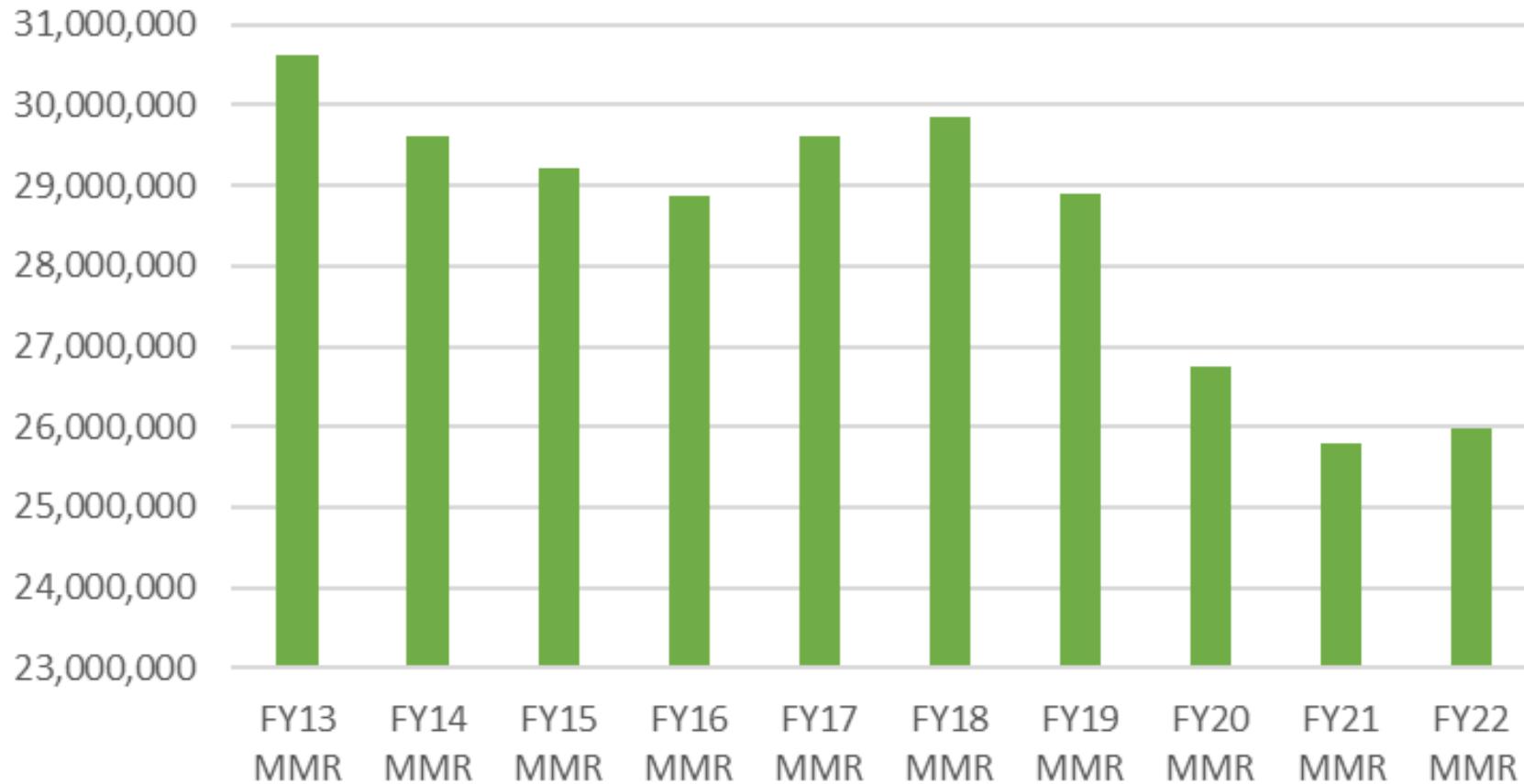
RENEWABLE DIESEL IN CALIFORNIA

Many cities and private companies have seen the importance and opportunity of replacing fossil diesel fuels with renewable diesel, a next stage biofuel derived from waste cooking oils, animal fat and excess soybean oils. Critically, renewable diesel can be used by a traditional engine and can immediately replace fossil diesel without investing in new or retrofit equipment. **San Francisco, Oakland, Sacramento, and San Diego** have successfully switched to entirely renewable diesel, and UPS, Google and Boeing have also begun to phase in RD in their fleets.



Reducing Fuel Use

NYC Fleet Fuel Use



More Electrification: NYC Fleet, Parks, NYPD



NYPD goes electric

Author
Keith Kerman, Deputy
Commissioner, Chief Fleet
Officer, Department of Citywide
Administrative Services

The New York City Police Department operates the largest police fleet in North America and is leading the way on implementing hybrid and all-electric vehicles for law enforcement.

[HERE](#)

electric



Top:
NYC's 30,000 strong existing electric
fleet includes sedans, SUVs, and
minivans.

Electric New York

New York City is to transition to an all-electric city fleet by 2040. The executive order from Mayor Bill de Blasio also requires the city to procure the safest possible vehicles.

[HERE](#)

emissions



NYC Parks leads the charge

Author
Keith Kerman, Chief Fleet
Officer and DCAS Deputy
Commissioner, NYC

How NYC Parks Department has transformed its fleet of vehicles and equipment to ensure that New Yorkers and tourists enjoying the city's parks can also enjoy their clean air.

[HERE](#)

Using Telematics to Reduce the Fleet

Press Release

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Email



Print

Mayor Adams Reduces NYC's Vehicle Fleet, Saving Taxpayer Dollars and Reducing Carbon Emissions

April 25, 2022

City Will Save \$13.7 Million Through New Measure as Part of Upcoming Executive Budget

City Car Fleet Will Shrink to Bloomberg-Era Levels, With Focus on Reduction of Vehicles Used for Employee Commuting

NEW YORK – New York City Mayor Eric Adams today announced a reduction of the city's vehicle fleet by at least 855 vehicles in an effort to save taxpayer dollars and reduce carbon emissions. The four percent reduction of the on-road fleet will focus on non-emergency vehicles, and will reduce the city's fleet to its size in the Bloomberg administration. In all, the plan announced today is expected to result in 5.13 million fewer miles driven per year — representing a 2,072 metric ton reduction in carbon dioxide emissions.

Intelligent Speed Assist (ISA) Initiative



New Technology on City Fleet Cars to Reduce Speeds and Save Lives

IN THIS STORY

DCAS is conducting a pilot program on 50 city vehicles with new Intelligent Speed Assist technology. ISA restricts the vehicle's speed based on the local speed limit on the road where the vehicle is travelling.

EV Challenges

- Need for strong upper-level leadership
- Managing charging for PHEVs within a fleet environment
- Charging must be in place first. Procurement of EV vehicles can outstrip install of charging.
- Upgrading electric building capacity, especially as EV projects grow in scale. There can be costly electric upgrades involved.
- Establishing technical know-how to install and then maintain EV charging. New role in fleet for building managers and electricians.
- Emergency resiliency for EV infrastructure. Need for generators, solar carports, battery storage that can support charging infrastructure.
- Training mechanics, tow truck operators, and emergency response for EV including what to do in crashes and fires.
- Matching EV vehicle range to existing duty cycle for vehicles. Studying actual versus listed range.
- Additional up-front costs for EVs, especially in trucking.
- Inter-operability across multiple EVSE, charging suppliers.
- Challenge of buy-in across agencies, operations, services, and cultures

NYC Annual Fleet Show, May 11, 2023



NYC Parks

34th Annual Equipment & Vehicle Show

Thursday, May 11, 2023
9:00 a.m. to 2:00 p.m.
Rain Date: Friday, May 12, 2023

Flushing Meadows Corona Park,
Queens, by the Unisphere

Fleet Management

NYC DCAS

This show highlights vendors who support the City of New York's Clean Fleet and Vision Zero initiatives, as well as daily operations. Vendors will offer a wide array of products to improve vehicle safety, including cameras, truck side guards, systems to track and manage fleets, and systems to avoid or mitigate collisions. The show will also highlight vehicles and equipment with alternative fuels and emissions-reducing technologies, along with the latest in light and heavy-duty vehicles, trucks, horticultural equipment, tools, fleet services, and more.

The show is free to all exhibitors and attendees.

More information, including registration information, will be available on the [NYC Department of Citywide Administrative Services website](#).



Accessibility Questions?
Contact DCAS Accessibility at 212-386-0256, or accessibility@dcas.nyc.gov by Thursday, May 4.

#ONENYC

**VISION
ZERO**

NYC Fleet Partnering Across the US and World



Contact

For more information, go to the NYC Fleet website:
<http://www.nyc.gov/html/dcas/html/employees/fleet.shtml>

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DCAS

THANK YOU