

Fleet



Energy Independence Summit

NYC Fleet

Keith T. Kerman, NYC Chief Fleet Officer

Washington DC

February 11, 2019

NYC Fleet: Who are we?



































Mayor de Blasio: One NYC Plan



December 2015

NYC Clean Fleet

New York City will lead by example in pursuing 80x50 transportation emissions reductions by improving the sustainability of its municipal vehicle fleet

EV

NYC Fleet On-Road Electric Vehicles

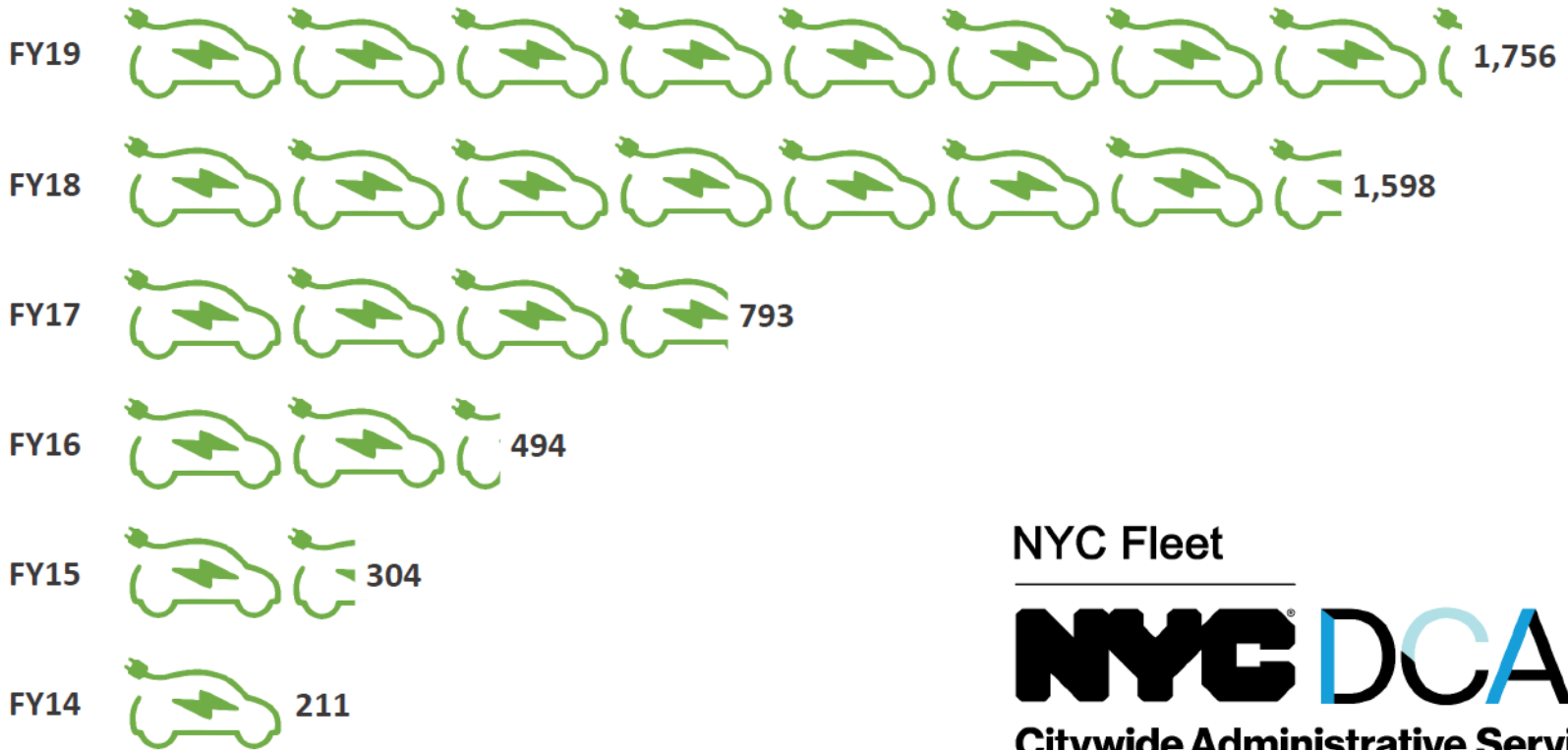


Image from vecteezy.com

NYC Fleet

NYC DCAS
Citywide Administrative Services

EV

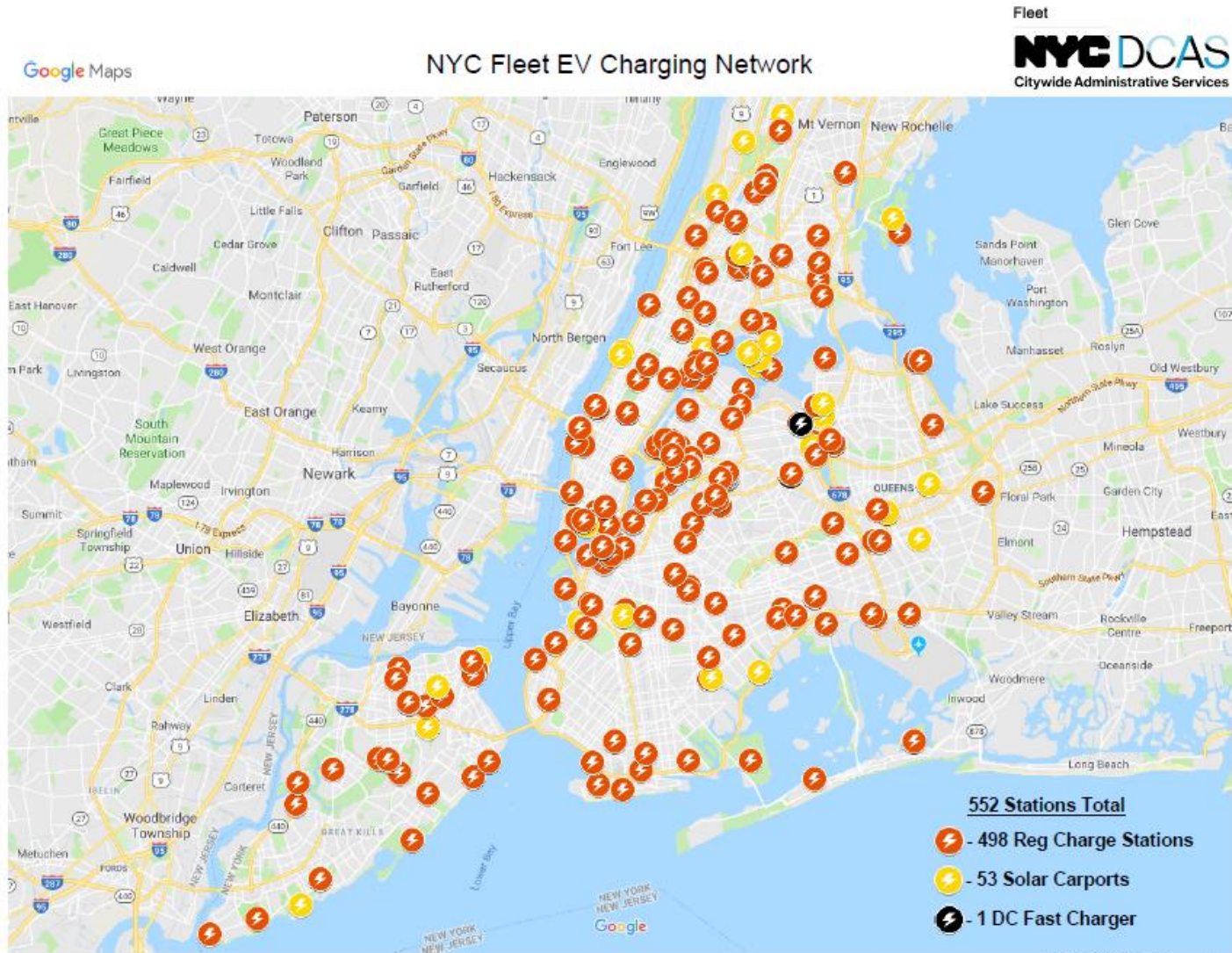


Seth Stein @SethStein · Jan 16

What's got 4 wheels, gets 82MPGe, all-electric 32 mi range & sleek [#dadcore](#) styling? The Mayor's new hybrid minivan



EVSE



EV Training



NYC DCAS @NYCDCAS · 9 Aug 2018



DYK we operate 520 electric vehicle chargers across NYC? One of the largest charging networks in the country. This week we organized **training** on **EV** systems for City electricians from **DCAS** @NYPDnews @NYCSchools @nycHealthy @NYCWater & @FDNY. Thanks to @NYCsanitation for hosting!



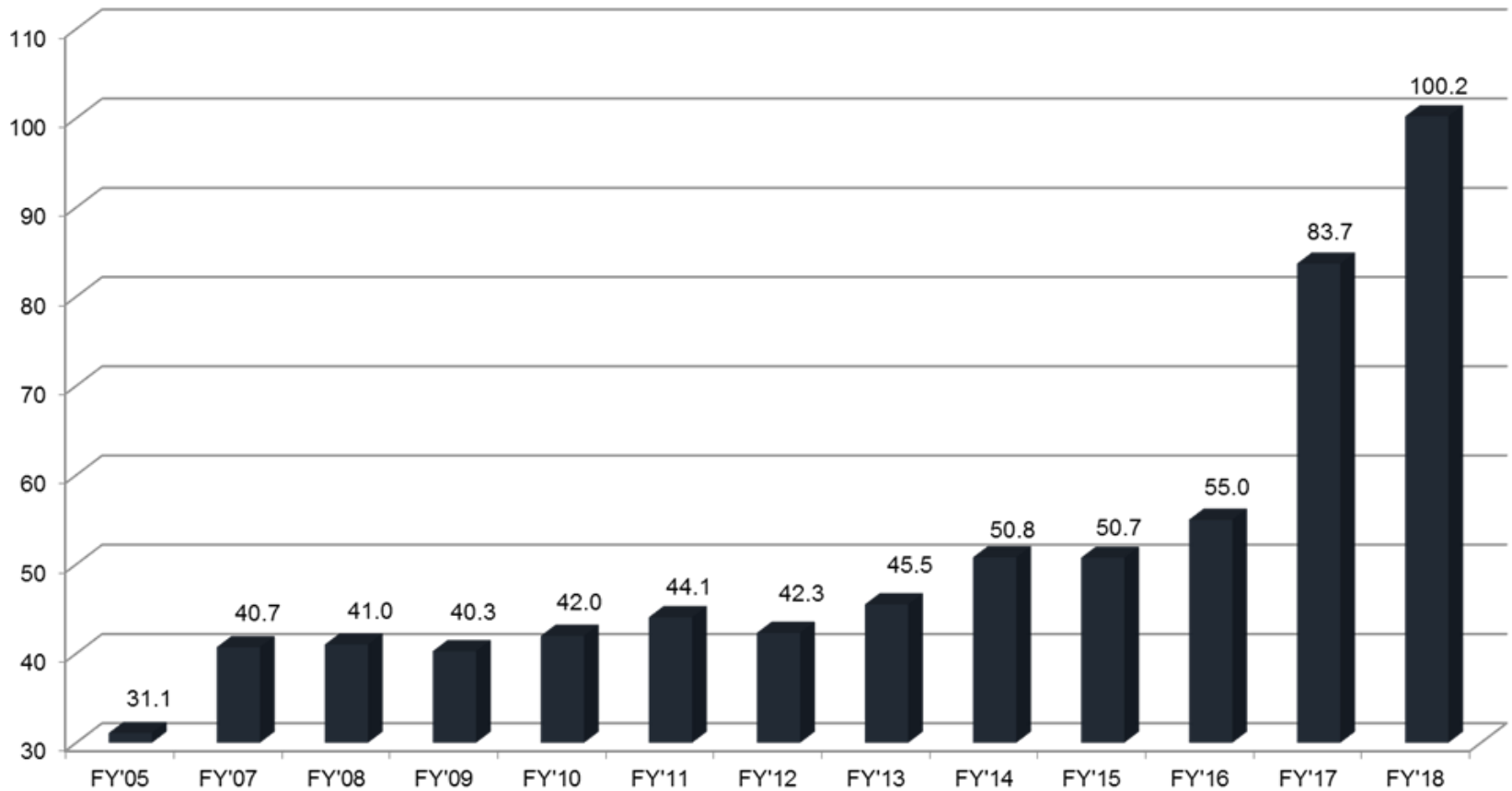
Solar



Green Roofs



Fuel Efficiency



Fuel Efficiency



For Immediate Release

October 5, 2017

Cathy Hanson, chanson@dcas.nyc.gov

FACING THREATS FROM WASHINGTON, NEW YORK CITY PROVES CORPORATE AVERAGE FUEL ECONOMY STANDARDS WORK

Department of Citywide Administrative Services submits comments to EPA protesting roll-back of standards, citing NYC's record 83.7 MPG average for newly purchased City vehicles in FY17 as proof of success

NEW YORK – New York City submitted comments to the Environmental Protection Agency (EPA) today, protesting any roll-back of the Corporate Average Fuel Economy (CAFE) standards of 54.5 MPG by 2025. Disproving the EPA's theory that these goals may be too ambitious or not achievable, NYC achieved a record 83.7 miles per gallon (MPG) on average for newly purchased light and medium duty units in Fiscal Year 2017, outpacing last year's previous record of 55 MPG.

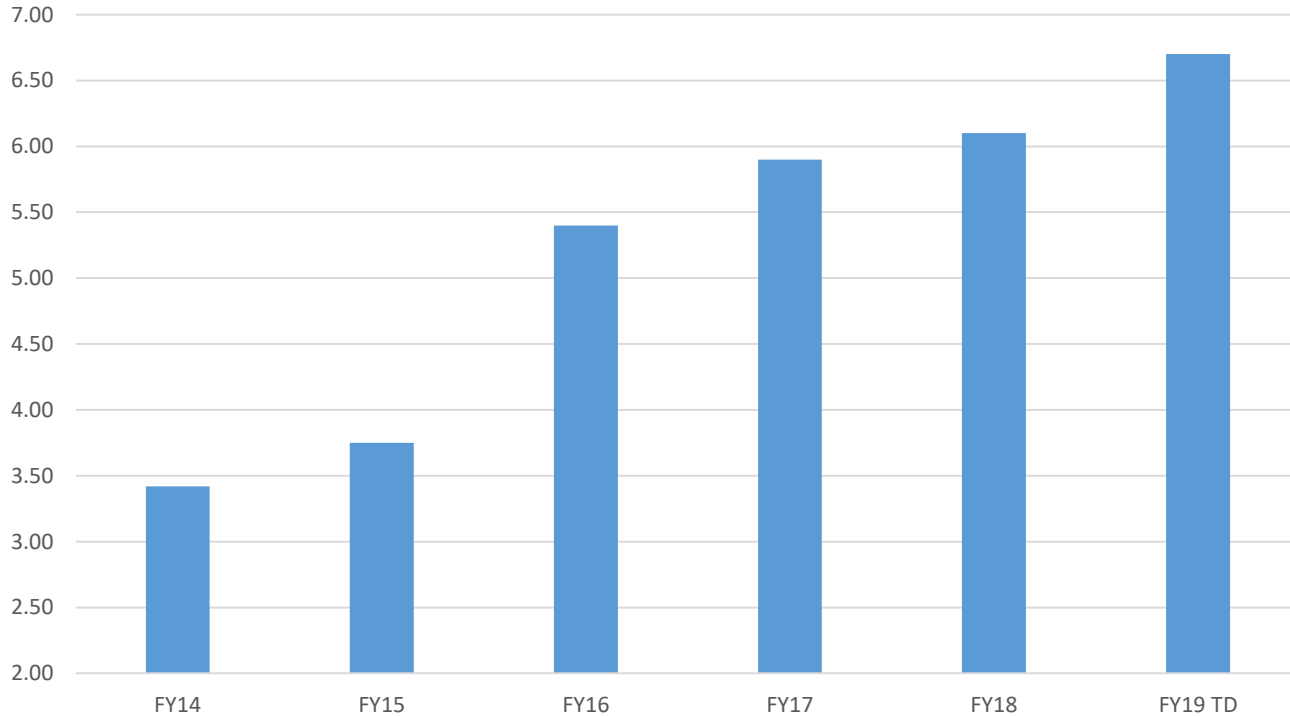
In 2005, led by then Council Member Bill de Blasio, the New York City Council passed Local Law 38, which requires the City fleet to report annually its CAFE equivalent each year for new light and medium duty fleet units and to purchase fuel efficient new vehicles. The fleet started in FY05 at 31 MPG on average and has now nearly tripled the fuel economy of its new vehicles. NYC has found this type of regulation leads to better, cheaper, more reliable, and more fuel efficient vehicles. In just the last four years, New York City demonstrated a 28 percent improvement in actual fuel economy, with a savings of more than \$600 dollars per vehicle.

"NYC has shown that ambitious CAFE standards work. For Washington to rollback these standards shows a disregard for what cities can and should achieve to help combat climate change," said **Mayor Bill de Blasio**. "We all have a responsibility to do our part. Washington should be looking to increase the standards, not do away with them. "

"In 2016, NYC matched the 2025 federal CAFE goal of 54.5 miles per gallon for its City fleet," said **Department of Citywide Administrative Services Commissioner Lisette Camilo**. "In 2017 we did even better thanks to our investment in hybrid and electric vehicles. We've shown the

Fuel Efficiency

NYC Fleet Fuel Economy, Including Off-Road



NYC Fleet: Fleet Fuel Economy including Off-Road Fuel Use

FY14	FY15	FY16	FY17	FY18	FY19 TD
3.42	3.75	5.40	5.90	6.10	6.70

Notes:

(1) Indicator now tracked in Mayor's Management Report (MMR)

(2) Fleet includes over 5,000 off-road pieces and thousands of hand held equipment units.

In this chart, fuel impact of off-road counted to transporting fleet units.

Hybrid Police Cars



Hybrid and Plug in Ambulances



Alternative Fuel Vehicle Marketplace

NYC Fleet Alternative Fuel Models

MAKE	MODEL	COUNT	FUEL TYPE
CHEVROLET	BOLT	230	ELECTRIC
CHEVROLET	EXPRESS	39	ELECTRIC GAS HYBRID
CHEVROLET	EXPRESS	73	CNG
CHEVROLET	SILVERADO HY	23	ELECTRIC GAS HYBRID
CHEVROLET	TAHOE HYBRID	74	ELECTRIC GAS HYBRID
CHEVROLET	VOLT	104	PLUG-IN
CHRYSLER	PACIFICA	8	PLUG-IN
CRANE	LT25232B012	1	CNG
CRANE	LT2523ZB004	16	CNG
FORD	C-MAX HYBRID	120	ELECTRIC GAS HYBRID
FORD	ESCAPE HYBRD	401	ELECTRIC GAS HYBRID
FORD	FOCUS ELEC	16	ELECTRIC
FORD	FUSION ENERG	401	PLUG-IN
FORD	FUSION HYBRD	1,377	ELECTRIC GAS HYBRID
FORD	TRANSIT CONN	4	ELECTRIC
FORD	TRANSIT VAN	5	ELECTRIC GAS HYBRID
GLOBAL	M4	117	DIESEL HYBRID
GMC	YUKON HYBRID	9	ELECTRIC GAS HYBRID
HONDA	ACCORD HYBRD	6	ELECTRIC GAS HYBRID
HONDA	CIVIC	36	CNG
HONDA	CIVIC HYBRID	19	ELECTRIC GAS HYBRID
IC CORP	PC105	3	DIESEL HYBRID
JOHNSTON	VANGUARD	2	CNG
KENWORTH	MT45 CHASSIS	1	DIESEL HYBRID
KENWORTH	T270	11	DIESEL HYBRID
KENWORTH	T300	16	DIESEL HYBRID
KENWORTH	T370	17	DIESEL HYBRID
MACK	LEU633	23	CNG
MERCURY	MARINER HYBD	2	ELECTRIC GAS HYBRID
NAVISTAR	ESTAR	3	ELECTRIC
NISSAN	ALTIMA HYBRD	50	ELECTRIC GAS HYBRID
NISSAN	LEAF	267	ELECTRIC
TOYOTA	AVALON HYBRD	12	ELECTRIC GAS HYBRID
TOYOTA	CAMRY HYBRID	302	ELECTRIC GAS HYBRID
TOYOTA	HIGHLAND HYB	194	ELECTRIC GAS HYBRID
TOYOTA	PRIUS	2,249	ELECTRIC GAS HYBRID
TOYOTA	PRIUS PLUGIN	399	PLUG-IN
TOYOTA	RAV4 HYBRID	479	ELECTRIC GAS HYBRID
TOTALS	38	7,109	

[Find a Car](#)[Save Money & Fuel](#)[Benefits](#)[My MPG](#)[Advanced Cars & Fuels](#)[About EPA Ratings](#)[More](#)[Q](#)

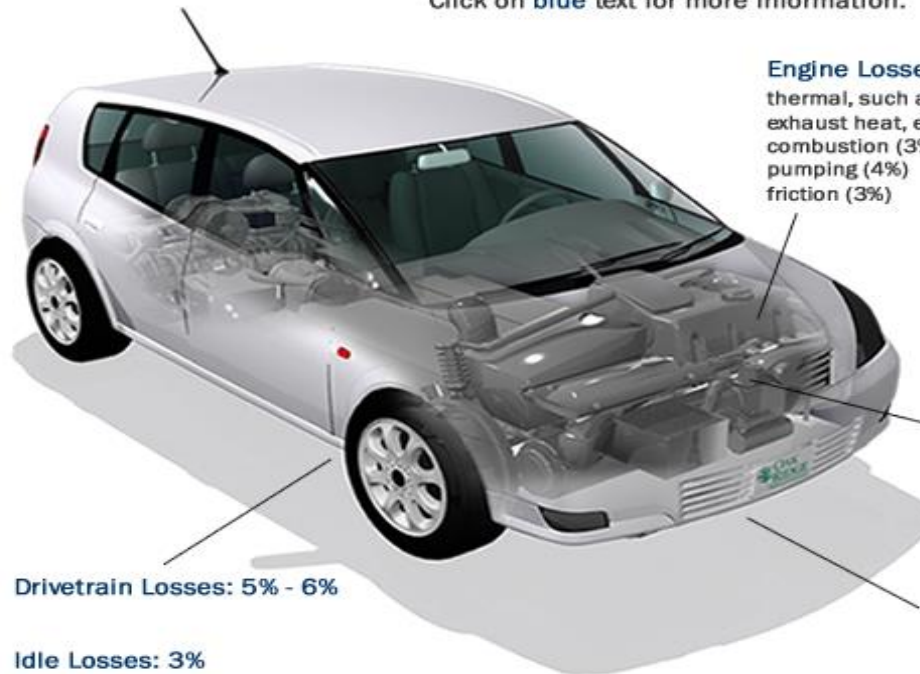
Where the Energy Goes: Gasoline Vehicles

Only about 12%–30% of the energy from the fuel you put in a conventional vehicle is used to move it down the road, depending on the [drive cycle](#). The rest of the energy is lost to engine and driveline inefficiencies or used to power accessories. Therefore, the potential to improve fuel efficiency with advanced technologies is enormous.

[Combined](#)[City](#)[Highway](#)

Energy Requirements for Combined City/Highway Driving

Click on blue text for more information.



Idle Losses: 3%

In this figure, they are accounted for as part of the engine and parasitic losses.

Some percentages may not add to 100% due to rounding.

Biofuels

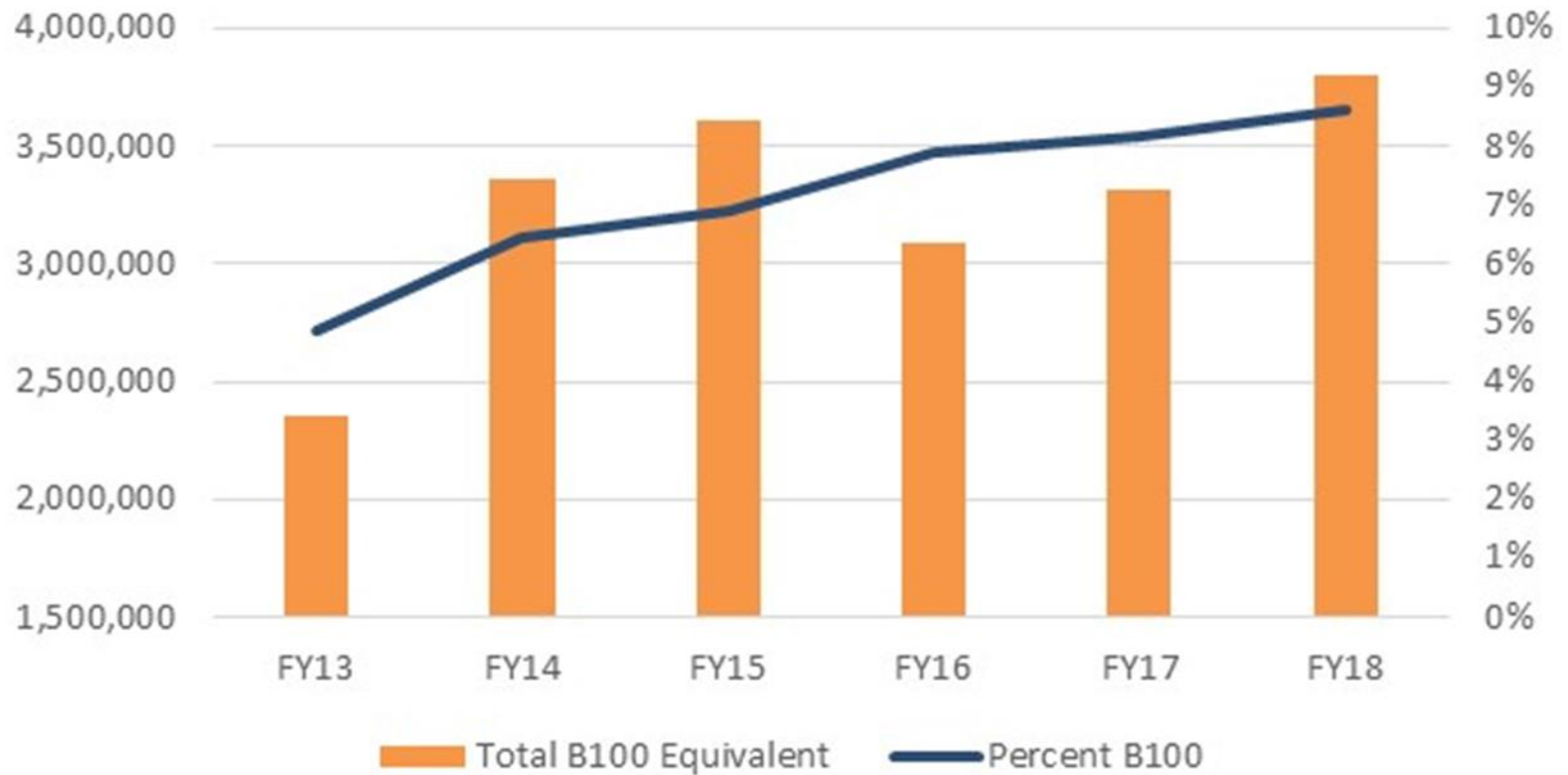


Biofuels

NYC Government Use of Biodiesel Blends			
FY	Blended Gallons for Government Buildings	Blended Gallons for Government Fleet	Total
13	31,736,530	11,925,594	43,662,124
14	35,457,127	14,080,534	49,537,661
15	35,554,585	15,597,826	51,152,411
16	22,669,030	15,281,204	37,950,234
17	23,792,071	15,780,318	39,572,389
18	27,412,541	15,588,687	43,001,228
Total	176,621,884	88,254,163	264,876,047

Biofuels

Biodiesel Use in NYC Fleet and Buildings



Biofuels



Biofuels



For Immediate Release

October 19, 2017

Cathy Hanson, chanson@dcas.nyc.gov

PUSHING BACK AGAINST WASHINGTON'S THREATS TO REDUCE ENVIRONMENTAL STANDARDS, NEW YORK CITY SUPPORTS AMERICA'S FARMERS AND BIODIESEL SUPPLIERS

Department of Citywide Administrative Services submits comments to EPA protesting roll-back of national renewable fuel standards and announces further expansion of use of biodiesel for fleet and buildings.

NEW YORK – New York City submitted comments to the Environmental Protection Agency (EPA) today, protesting any roll-back of the Renewable Fuel Standards (RFS) which call for minimal use levels for renewable fuels like biodiesel. Biodiesel has proven a reliable and effective fuel for NYC fleet and buildings and has helped reduce air pollution in the City while lowering greenhouse gas emission. NYC continues to grow its implementation of biofuels in buildings and fleet and calls on Washington to do the same nationally.

Biofuels can be produced in many ways including recycling of used grease from restaurants and the use of farm products such as soy plants.

Already a leader in biodiesel use, NYC is set to expand the use of biofuels:

- **Mayor de Blasio signed Local Law 119 of 2016, one of the most ambitious biofuels laws in the country.** This law will transition all fuel oil used in heating to B20 by 2034. The first stage of the expansion is happening now with all NYC public and private buildings transitioning from B2 to B5 effective October 1, 2017.
- NYC owned government buildings will meet this goal **eight years before the law requires**, going from B5 to B10, effective the winter of 2017/2018,
- NYC will also introduce the use of **renewable diesel (RD) for the first time** with a 1 million-gallon purchase scheduled for use by City agency fleets in spring, 2018. Like biodiesel, RD uses renewable and natural feedstock's to replace fossil fuels.

These efforts require a healthy and growing national biodiesel industry and set of suppliers. We object to any effort to roll-back the Renewable Fuel Standards on the part of

Biofuels

For Immediate Release



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DCAS to Expand Use of 99% Petroleum-Free Renewable Diesel in City Vehicles

City Aims to Phase Out Use of Traditional Diesel Fuel

NEW YORK – The NYC Department of Citywide Administrative Services (DCAS) today announced that it will expand use of renewable diesel fuel, a 99% petroleum-free alternative to traditional diesel fuel. The fuel reduces CO2 emissions by 65% compared to the petroleum-based version. This move is part of the City's efforts to phase out its use of regular diesel.

The City plans to bid a long-term contract to purchase renewable diesel following a successful six-month demonstration period in which the City tested nearly one million gallons of renewable diesel in City fleet vehicles. Each year, City fleet units use up to 17 million gallons of diesel that could be displaced through this initiative.

"The climate crisis is real and it's urgent, and that is why the City of New York is leading the way on reducing carbon emissions," said **Lisette Camilo, Commissioner of the NYC Department of Citywide Administrative Services**. "Renewable diesel is 99% petroleum-free and helps keep fossil fuels in the ground and emissions out of our air."

Biofuels



Biodiesel Technical Training Course

BIO 2B: Biodiesel Vehicle Maintenance



Presented by the
National Biodiesel Board

Biofuels

MEDIA | NEWS RELEASES

GOODYEAR USING SOYBEAN OIL-BASED RUBBER IN TIRES

AUGUST 29, 2017

AKRON, Ohio, August 29, 2017 – The Goodyear Tire & Rubber Company is harvesting some unique “seeds” of innovation as it introduces a new tire technology with support from the United Soybean Board (USB).

The first commercial use of a new soybean oil-based rubber compound is helping Goodyear enhance tire performance in dry, wet and winter conditions. A Goodyear team of scientists and engineers created a tread compound, or formulation, using soybean oil, which is naturally derived, cost-effective, carbon-neutral and renewable.

“Goodyear’s legacy of innovation drives us to continue to apply new technology solutions, developing superior performing tires that meet consumer demands,” said Eric Mizner, Goodyear’s director of global materials science.

By employing soybean oil in tires, Goodyear found a new way to help keep the rubber compound pliable in changing temperatures, a key performance achievement in maintaining and enhancing the vehicle’s grip on the road surface.

Goodyear’s tests have shown rubber made with soybean oil mixes more easily in the silica-reinforced compounds used in manufacturing certain tires. This also improves manufacturing efficiency and reduces energy consumption.

Fleet Management

OPERATIONS

New York City Doubles Car Sharing Use

March 6, 2018 • by Staff [f](#) [t](#) [in](#) [e](#)



Photo via [Open Grid Scheduler / Grid Engine/Flickr](#)

New York City fleet drivers increased their use of car sharing significantly in 2017, the city's Department of Citywide Administrative Services (DCAS) reported in its second annual report on car sharing.

Fleet Management



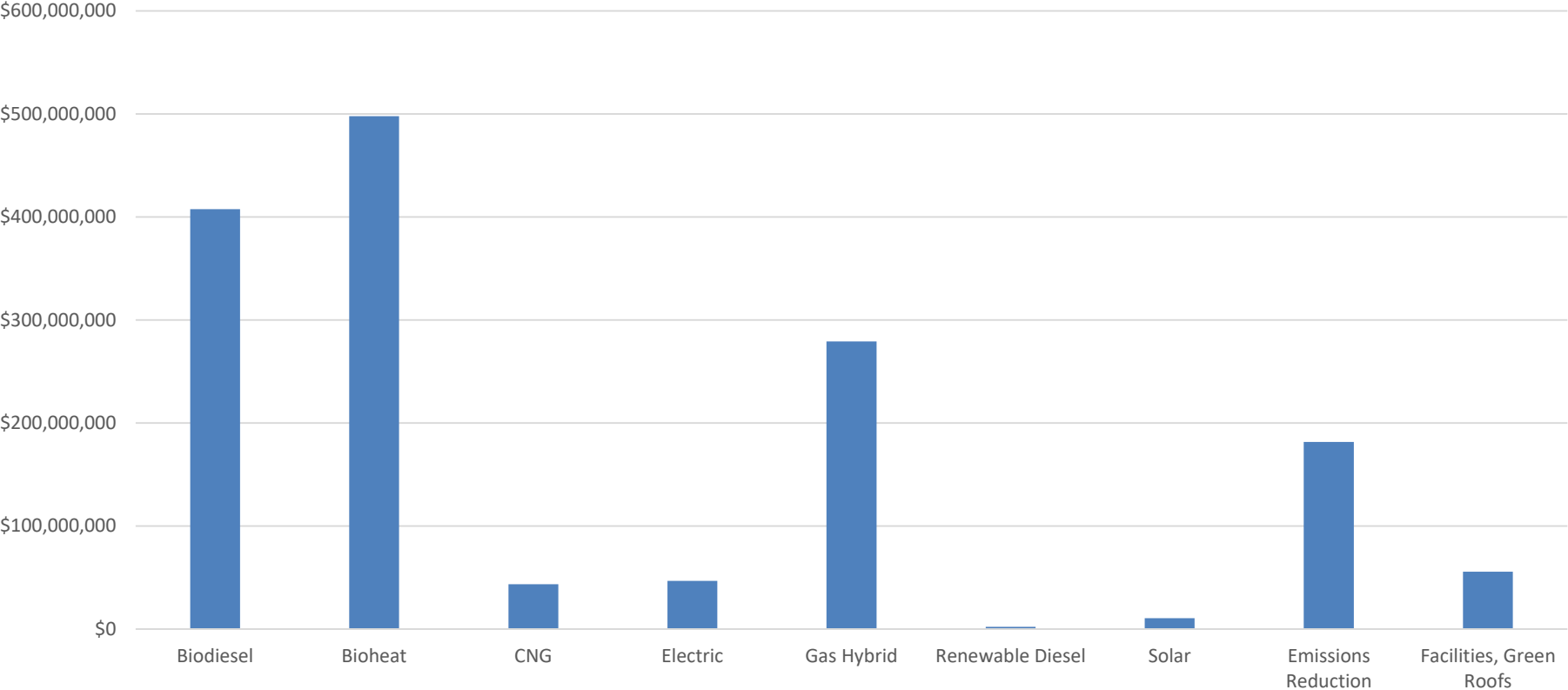
Fleet Management

<p>2017 Toyota RAV4 Hybrid AWD X</p> <p>Hybrid Vehicle Gasoline</p>  <p>2.5 L, 4 cyl, Auto(AV-S6) MSRP: \$29,030 - \$34,030</p>	<p>2017 Toyota Prius X</p> <p>Hybrid Vehicle Gasoline</p>  <p>1.8 L, 4 cyl, Automatic (variable gear ratios) MSRP: \$24,685 - \$30,015</p>
<p>Regular Gasoline</p> <p>32 MPG combined city highway city/highway 3.1 gal/100mi</p> <p>Gasoline  474 miles Total Range</p>	<p>Regular Gasoline</p> <p>52 MPG combined city highway city/highway 1.9 gal/100mi</p> <p>Gasoline  588 miles Total Range</p>

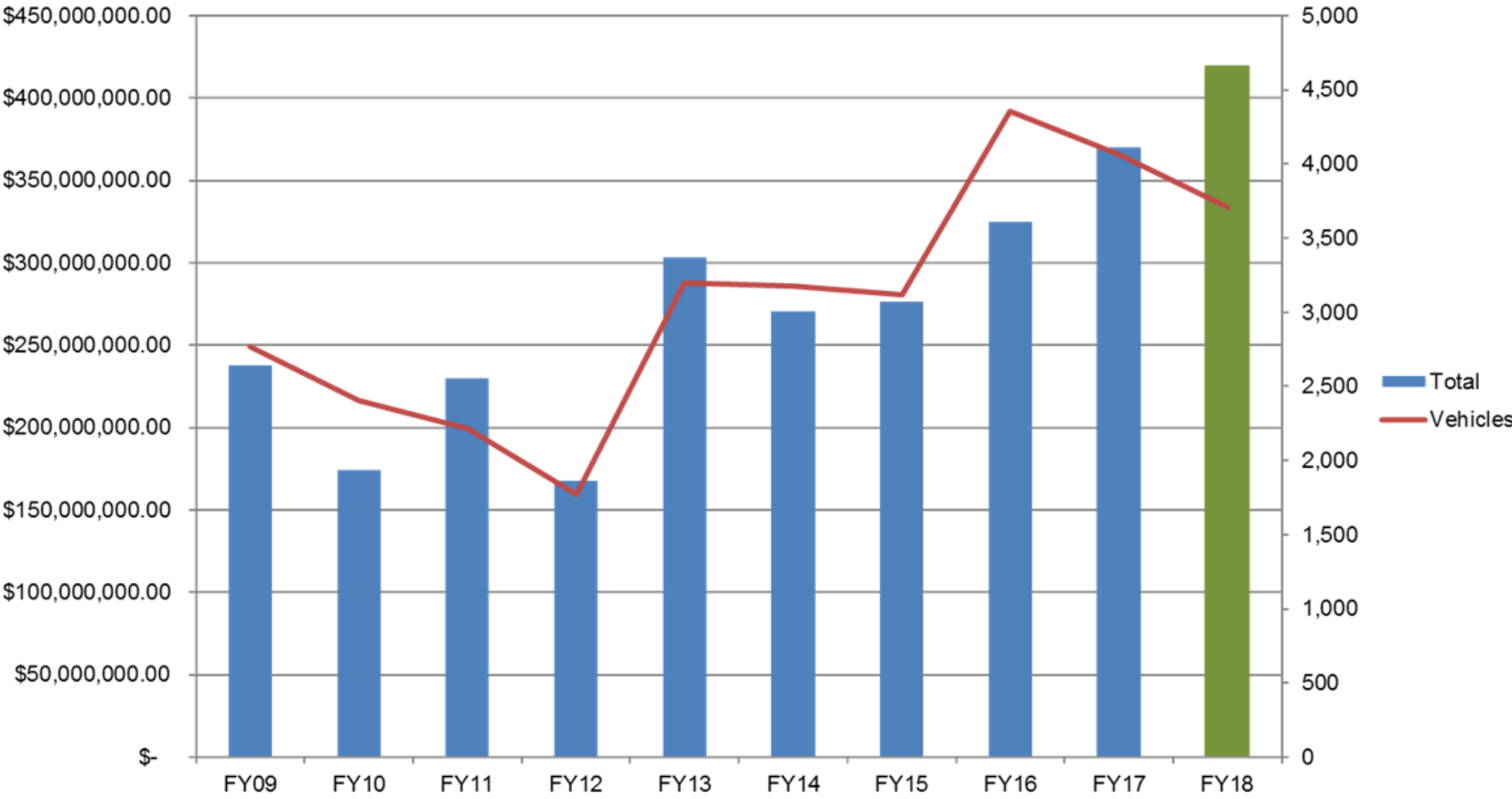
ARI Repair Costs: Average Cost Per Vehicle by Vehicle Type	Day (Avg)	Month (Avg)	FYTD
Mid-size Car	\$3.09	\$67.14	\$805.67
Mid-size SUV	\$5.04	\$109.70	\$1,316.40

Investment: Sustainable Technology

NYC Fleet
\$1.5 Billion in Spending on Sustainability



Investment: Acquisitions



Savings

CITYWIDE SAVINGS PROGRAM

Description	City Personnel Plan as of 6/30/18 Increase/(Decrease)	(City Funds in 000's)			
		2017	2018	2019	2020
Citywide Savings Initiatives					
<u>Citywide Fleet Optimization.</u> Reduce the size of the city's fleet and the number of vehicles rented through expansion of citywide car sharing (FastFleet), and accelerated review of underutilized city vehicles that can be transferred to those agencies with new vehicle needs or retired.		--	(10,000)	(13,000)	(11,000)
<u>Reduction in paper checks.</u> Reduction in the number of paper checks circulating by addressing vendor payments, increasing the number of employees paid via direct deposit and eliminating inter and intra agency checks.		--	(1,000)	(2,000)	(3,000)
<u>Savings to be achieved from a color printing cap.</u> Savings to be achieved from a color printing cap.		--	(1,000)	(1,000)	(2,000)
Subtotal:		--	(12,000)	(16,000)	(16,000)

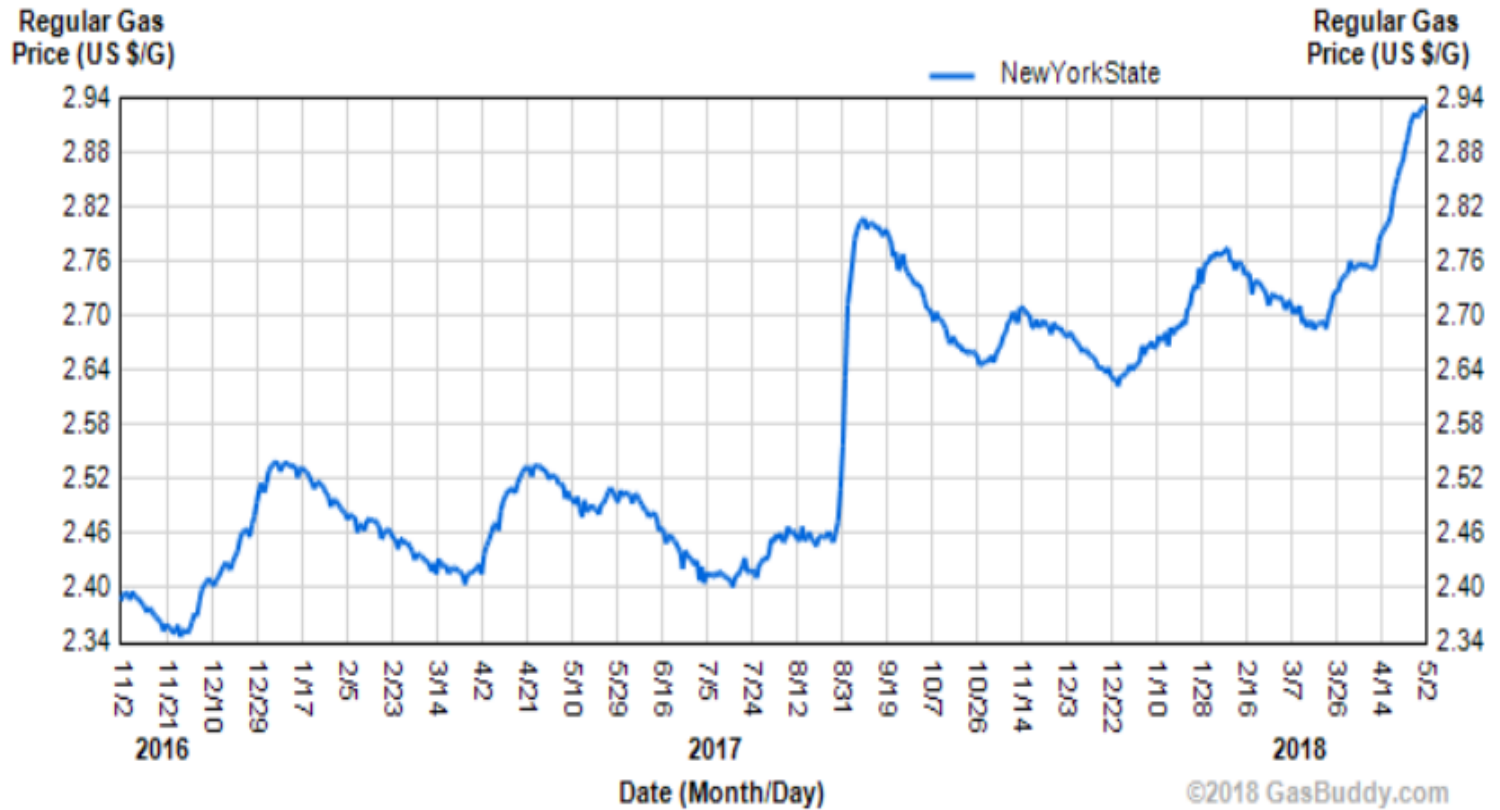
Citywide Savings Program

Citywide Savings Initiatives

Description	City Personnel As of 6/30/19	(City Funds in 000's)				
		FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
<u>Paper Reduction</u> City agencies will phase out the creation and storage of most types of paper documents, which will reduce storage costs.		--	(250)	(800)	(3,000)	(4,500)
<u>Electric Vehicles</u> The City will transition to purchasing battery powered electric vehicles (BEVs) in order to decrease fuel and maintenance costs.		--	(1,938)	(2,263)	(2,589)	(2,914)
<u>Agency Phone Plan Review</u> DoITT will review phone plans to ensure competitiveness, improve billing, and upgrade technology.		--	(1,575)	(3,500)	(3,500)	(3,500)
<u>Fleet Legal Coordination</u> DCAS will share information with Law related to the defense of automobile-related claims made against the City.		--	(4,800)	(4,800)	(4,800)	(4,800)
<u>Standardize Travel Policies</u> Review agency travel requests to promote cost-effectiveness.		--	(1,000)	(1,000)	(1,000)	(1,000)

Pricing

18 Month Average Retail Price Chart



Pricing

Diesel gallon of fuel

New York: \$3.321

London: \$6.567 (£4.85)

- Additional charges in London area tied to diesel and other vehicles:
 - \$15.52 (£11.5) Daily congestion "C charge" on all vehicles in London.
 - \$13.50 (£10) Daily "T charge" for older diesel vehicles in London
 - \$9.92 (£7.35) Hourly parking charge for diesel vehicles in some boroughs.

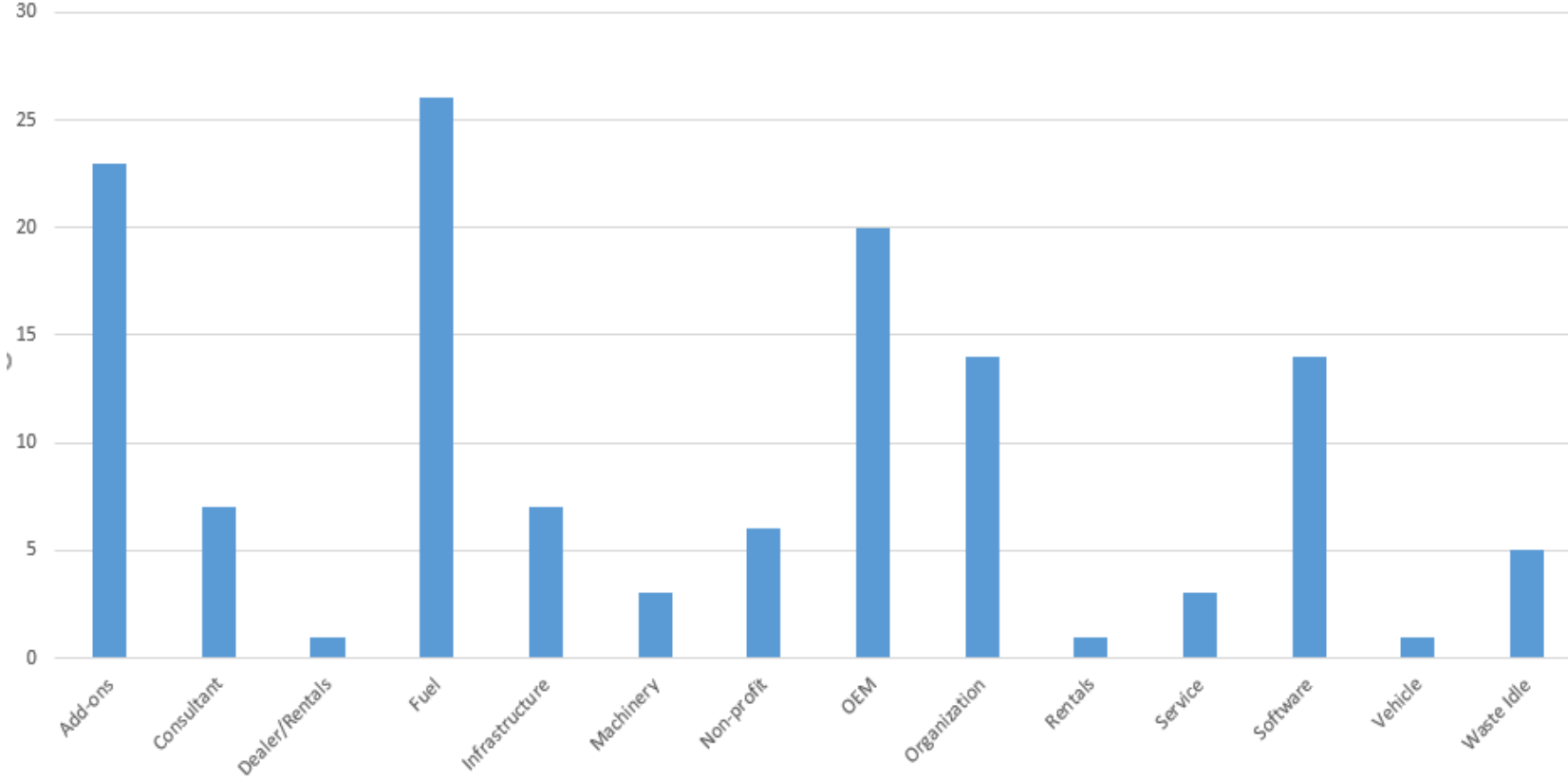
Potential charge for using a diesel vehicle for a day:

2 gallons of diesel + C charge + T charge + 2 hours parking = \$62.

*This is based on April 30, 2018 average diesel price in NY from NYSERDA, average diesel price in London from PetrolPrices.com, and May 4 Pound to Dollar conversion rate.

Partnership

NYC Clean Fleet RFI



Partnership

International Fleet Safety and Sustainability Forums



Local Authority Plant & Vehicles
Future Fleet Forum 2019
23rd & 24th January, The Guildhall, London

Hosted by
CITY LONDON

futurefleetforum.co.uk

Brought to you by

NYC Citywide Administrative Services Fleet
The Council of Ministers and Members
LAPV
CITY LONDON POLICE
CITY LONDON



International Fleet Forum
Smart, Safe, and Sustainable
Montreal, Canada
3rd and 4th, June 2019

Partnership



NYC Parks

30TH ANNUAL EQUIPMENT & VEHICLE SHOW

Thursday, May 17, 2018, 9am to 2pm

Rain Date: Friday, May 18

Flushing Meadows Corona Park,
Queens, by the Unisphere

This show highlights vendors who support NYC's Clean Fleet and Vision Zero initiatives, as well as daily operations. We will have vendors offering 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 also highlights 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.

Free to all exhibitors and attendees.

For more information or to RSVP, please call (212) 386-0377 or email dkrantz@dcas.nyc.gov



Accessibility Questions?

Contact DCAS Accessibility at 212-386-0266, or accessibility@dcas.nyc.gov by May 11, 2018.

NYC Citywide
Administrative
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ZERO**
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Fleet



Thank you!

NYC Fleet

February 11, 2019