

Summary

In 2013, the City Council passed Local Law 75 regarding the use-based fuel economy of the City's non-emergency light and medium-duty vehicles.

DCAS currently reports on the EPA-certified manufacturer's listed miles per gallon (MPG) as part of Local Law 38 of 2005, which governs the purchase of new light and medium-duty vehicles.

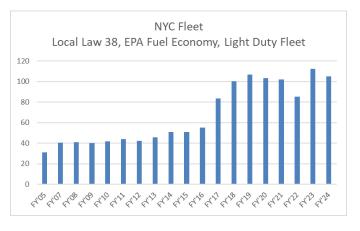
Local Law 75 of 2013 requires the reporting of the actual "use-based" fuel economy of city vehicles, as impacted by weather, traffic, use of A/C and heaters, idling, and other road and operational conditions.

In 2013, DCAS did not have the reporting capacity to provide use-based fuel economy in the manner required by the law. As part of Mayoral Executive Order 41 of 2019, DCAS added live telematics tracking for all on-road city vehicles. This initiative is managed through the DCAS Fleet Office of Real Time Tracking (FORT).

The telematics devices can read fuel consumption and usage directly from the vehicle computer. In FY20, for the first time, DCAS reported real-world miles per gallon (MPG) using the telematics system to produce the calculated MPG. From FY20 to FY23 DCAS further expanded the telematics program to include additional vehicles and usage. The FY24 report tracks a record 48.35 million miles of use and 8,842 vehicles.

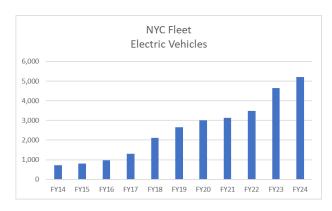
Key results:

- Increased Fleet Reporting: The use of telematics has enabled DCAS to improve the reliability of use-based fuel economy data while increasing the total units and miles tracked. In the first year of Local Law 75 reporting in 2015, DCAS reported on 5,202 vehicles. In FY24, DCAS is reporting on 8,842 vehicles, an increase of 3,640 (+70%). The 48.35 million miles reported on in the FY24 report is also the most to date. This local law report does not cover law enforcement, FDNY, and other emergency service vehicles or heavy-duty trucks. For future reports, DCAS will be assessing its capacity to add emergency vehicles and trucks to this reporting.
- Achieving EPA Fuel Economy Over 100 Miles per Gallon (MPG): For the sixth year in seven years, DCAS achieved a Corporate Average Fuel Economy (CAFE) of over 100 MPG for new light-duty vehicles. The average EPA fuel economy of new light-duty units, as reported in Local Law 38 of 2005, achieved 105 miles per gallon in FY24. For comparison, EPA's latest report on US fuel economy was 27.1

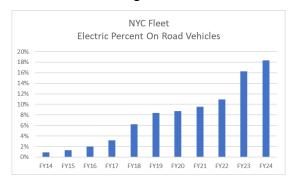


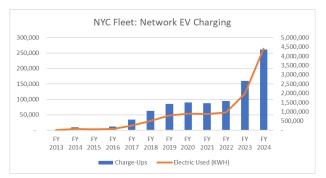
MPG in 2023 which was a record high. In comparison, DCAS achieved nearly 4 times that level.

• Major Increase in Electric Vehicle Use, Nearly Double Last Year: DCAS currently operates the largest electric fleet (5,400+) and electric vehicle (EV) charging network (2,200+ ports) in New York State. In FY23, DCAS reported over 4.3 million miles of use with the all-electric battery electric vehicles (BEV) included in Local Law 75 reporting. This was nearly double the 2.38 million miles of all electric use in FY22. In FY24, DCAS is reporting 8.5 million miles, nearly

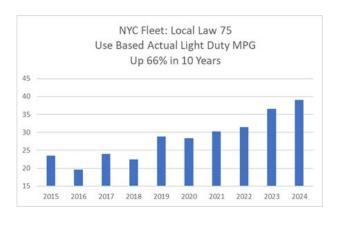


doubling use again. Over the last two years, from FY22 to FY24, there was also an 82% increase in miles using plug-in hybrid (PHEV) electric vehicles, from 5.31 million to 9.67 million miles among the vehicles included in the LL75 reporting.





Fuel Economy: In FY23, DCAS achieved 36.5 actual use-based miles per gallon for the light-duty fleet across 5,573 units and 31.2 million miles tracked. In FY24, DCAS achieved 39 MPG across 5,848 vehicles and 34.7 million miles tracked. This was the most fuel-efficient light duty fleet in 10 years. As would be expected, the trends for actual use-based fuel economy follow the trend lines for the EPA new vehicle fuel economy, with both trends steadily improving.



• Need to Manage Charging and Fuel Economy for Plug-in Hybrid EVs (PHEVs): FY24 saw a one-year increase in fuel economy across all units tracked by 4%. The most fuel-efficient of the gas-burning units were the plug-in hybrids (PHEVs) which achieved 38.03 MPG fuel economy in actual use. These units can both plug in and use liquid fuels when the battery is at low charge. The fuel economy for the PHEVs did decline in FY24, from 42.94 in FY23 and 42.63 in FY22, to 38.03 MPG in FY24. At the same time, the total number of PHEVs went up from 1,068 in FY22 to 1,435 in FY24. Part of this impact is the increased proportion of PHEV SUVs in our total PHEV fleet. DCAS is procuring very few PHEV sedans at this time, with a focus on all electric BEV sedans. DCAS is procuring

PHEV SUVs for agencies like DSNY that require that flexibility for storm and emergency events. DCAS will work with agencies to better ensure PHEVs are charged whenever possible.

- Diesel Medium Duty Units are More Fuel Efficient than Gas Medium Duty Units: Diesel units are 33% more fuel efficient than gasoline units in actual use, 11.74 MPG for diesel versus 8.82 MPG for gas. DCAS is working to increase medium-duty electric vans and pickups in the fleet including the Ford Lightning, the Ford E-Transit, and the Chevrolet Silverado EV. However, there remain limitations in the implementation of electric medium-duty options including the lack of electric options for plowing. In these cases, DCAS is shifting to diesel options. Diesel gets superior fuel economy. In addition, DCAS has transitioned the entire fleet to renewable diesel as announced by Mayor Adams in October 2024, decreasing greenhouse gas emissions and air pollution.
- Hybrid and Plug-in Hybrid Light Duty Vehicles Achieve Dramatically Better Actual
 Fuel Economy than Gasoline Units: Light duty plug-in hybrids achieved 38 MPG in
 FY24, and light-duty hybrids achieved 33 MPG. Light-duty gasoline units achieved 20
 MPG. Light-duty hybrid units were 65% more fuel efficient than light-duty gasoline units.
 Light-duty plug-in hybrids (PHEVs) were 90% more fuel efficient than light-duty gasoline
 units, and 15% more fuel efficient than light-duty hybrids. In 2020, DCAS reported that
 hybrids were achieving better actual fuel economy against their EPA ratings than
 gasoline vehicles.

DCAS also operates a small number of hybrid medium-duty units. There were 159 reported in the FY24 report. These hybrid medium-duty units did not report improved fuel economy from FY23 to FY24 and did not report superior fuel economy over either gasoline or diesel medium units. DCAS no longer procures hybrid versions of diesel trucks as the focus turns to all-electric options. DCAS <u>announced</u> in December 2024 plans for a major purchase of 55 electric trucks.

• Fuel Economy for Hybrid Vehicles Remained Steady from FY23 to FY24: DCAS saw very little change in fuel economy over the last year for hybrid light-duty or medium-duty units. As DCAS continues to electrify vehicles, the mix of remaining gas and hybrid vehicles will change which could impact this annual reporting.

DCAS will use these results to further inform our vehicle procurement and fleet sustainability efforts.

| Use Based Fuel Economy Report for FY23 and FY24

Local Law Report

2023			
Agency Count of Unit			
DCAS	3,059		
DEP	1,211		
DHMH	204		
DOCN	407		
DOT	1,458		
Parks	1,268		
DSNY	1,169		
Total	8,776		

2024				
Agency Count of Units				
DCAS	2,443			
DEP	1,358			
DHMH	202			
DOCN	467			
DOT	1,506			
Parks	1,610			
DSNY	1,256			
Total	8,842			

2023				
Subgroup	Count of Units	Total Miles	Total Gallons	MPG
Light	5,573	31,209,315	854,985	36.50
Medium	3,203	12,802,425	1,201,925	10.65
Total	8,776	44,011,740	2,056,910	21.39

2024				
Subgroup	Count of Units	Total Miles	Total Gallons	MPG
Light	5,848	34,688,571	889,703	38.99
Medium	2,994	13,668,846	1,279,124	10.69
Total	8,842	48,357,417	2,168,827	22.30

2023				
	Count of Units	Total Miles	Total Gallons	MPG
Light	5,573	31,209,315	854,985	36.50
Plug-in	1,310	8,273,167	192,669	42.94
Hybrid	1,895	12,884,317	387,158	33.28
Gas	881	5,613,028	258,565	21.70
All Electric	1,451	4,171,592	-	-
Diesel/Bio	36	267,211	16,593	16.10

2024				
	Count of Units	Total Miles	Total Gallons	MPG
Light	5,848	34,688,571	889,703	38.99
Plug-in	1,435	9,672,474	254,353	38.03
Hybrid	2,025	11,854,927	355,661	33.33
Gas	954	5,416,278	267,698	20.23
All Electric	1,398	7,432,327	-	-
Diesel/Bio	36	312,564	11,991	26.07

2023				
	Count of Units	Total Miles	Total Gallons	MPG
Medium	3,203	12,802,425	1,201,925	10.65
Hybrid	160	759,055	94,232	8.05
Diesel/Bio	1,239	5,537,385	443,736	12.47
Gas	1,558	6,371,328	663,957	9.59
All Electric	246	134,657	-	-

2024				
	Count of Units	Total Miles	Total Gallons	MPG
Medium	2,994	13,668,846	1,279,124	10.69
Hybrid	159	1,067,869	133,240	8.01
Diesel/Bio	1,263	5,529,337	471,044	11.74
Gas	1,331	5,949,826	674,839	8.82
All Electric	241	1,121,815	-	-



