



## **Local Law 38 Annual Report Fiscal Year 2018**

This report details New York City's purchase of fuel-efficient light and medium duty cars (typically, cars and vans respectively). The aim of Local Law 38 (LL38) is to achieve a 25% reduction in fuel consumption by Fiscal Year 2018 as compared to baseline fuel efficiency data from Fiscal Year 2005. This drop in fuel consumption would reduce the amount of greenhouse gas being released and would also improve the city's air quality.

The milestones in the legislation are as follows:

- October 1, 2005: The City will complete a fuel economy inventory of all light-duty vehicles purchased by the City during Fiscal Year 2005 and will calculate the average fuel economy of these vehicles.
- July 1, 2006: Each light-duty vehicle and medium-duty vehicle that the City purchases will achieve the highest California LEV II standards. The City will also achieve a 5% increase in average fuel economy in all light duty vehicles.
- January 1, 2007: The City will report for the last time, whether it has complied with the Local Law standard that 80% of the light duty vehicles are alternative fuel vehicles.

Following the July 2006 fuel economy milestone, the City is to achieve an increase of 8% in average fuel economy in 2007; 10% in 2008; 12% in 2009; 15% in 2010; 18% by 2012; and 20% for fiscal year 2015 and 2016, and 25% in 2017 and 2018.

As of Fiscal Year 2018, the City exceeded the mandated 25% increase in fuel economy for light duty vehicles. Gasoline usage by light and medium duty vehicles has decreased from 2005, but diesel consumption increased because emergency services makes greater use of the gas card program for diesel fueling. This trend does not represent total fuel use which combines in-house and gas card (private) fueling. The City exceeded the legislative goal that 95% of purchases be of the lowest polluting vehicles in their class, by purchasing 98.9% of the City's fleet in the lowest polluting class. The City made a policy decision to purchase CNGs which are in a lower polluting category than the non CNG vehicles. However, not all agencies have the capacity for this charging infrastructure.

The answers below describe the status of the City's implementation of the law and respond to the specific questions posed in the legislation.<sup>1</sup>

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<sup>1</sup>Section 24-163.1 (e)(1) of the Administrative Code sets forth seven questions to which the Annual Report is required to provide an answer.

1. What is the total number of light-duty vehicles and medium-duty vehicles purchased by each agency?

Agency	Light Duty	Medium Duty	Total
Dept. of Health & Mental Hygiene (DOHMH)	1	0	1
Dept. of Environmental Protection (DEP)	151	1	152
Dept. of Transportation (DOT)	67	0	67
Dept. of Citywide Administrative Services (DCAS) & Managed by DCAS	179	15	194
Dept. of Sanitation (DSNY)	64	0	64
Dept. of Parks & Recreation (DPR)	22	25	47
Dept. of Education (DOE)	1	11	12
<b>Total</b>	<b>485</b>	<b>52</b>	<b>537</b>

NB: FDNY and PD are exempt from this reporting requirement as they are emergency vehicles.

2. What is the total number of light and medium duty vehicles purchased in each rating category, disaggregated by vehicle model?
  - a. The total number of zero emission vehicles (ZEV) purchased;
  - b. The total number of advanced technology partial zero emission vehicles (ATPZEV) purchased;
  - c. The total number of partial zero emission vehicles (PZEV) purchased;
  - d. The total number of super ultra-low emission vehicles (SULEV) purchased;
  - e. The total number of ultra-low emission vehicles (ULEV) purchased; and
  - f. The total number of low emission vehicles (LEV) purchased.

Total ZEV	Total ATPZEV	Total TZEV	Total SULEV	Total ULEV	Total LEV	Vehicle Total
112	0	256	112	57	0	<b>537</b>

Note: Please see Attachment A for the breakdown of the above numbers disaggregated by vehicle model. It shows that the vehicles purchased were within the highest fuel efficiency ratings.

3. How many Alternative Fuel Buses were purchased?  
Zero buses were purchased.
4. What is the percentage of light and medium duty vehicles purchased as the lowest polluting vehicle in each category? Target of 95%.

Lowest Category	Other	Vehicle Type
367*	3	Medium Size Sedan
1	1	Regular Size Van
104	0	Small-size Sports Utility
5	2	Mid-size Sports Utility
4	0	Light-duty Pick-ups
50	0	Medium Duty Vans
<b>Total: 531* vehicles</b>	<b>Total: 6 vehicles</b>	
<b>Total: 98.9% (see below)</b>		

\*As per 24-163.1(b)(2), The city shall not be required to purchase a zero emission vehicle or advanced

technology partial zero emission vehicle in accordance with paragraph one of this subdivision if the only available vehicle or vehicles that achieve such a rating cost greater than fifty percent more than the lowest bid as determined by the applicable procurement process for a vehicle available in the next highest rating category that meets the requirements for the intended use by the city of such vehicle or if, after consultation with the affected agency, the commissioner determines that the use of such vehicle would be impractical or would unduly hinder the operations of a city agency, or if the commissioner determines that the city lacks the charging and fueling infrastructure to support use of such a vehicle, provided that the next highest rating category that meets the requirements for the intended use by the city of such vehicle shall be selected.

5. *What is the average fuel economy of light duty vehicle purchases?*

The average fuel economy is 100.2 miles per gallon. Please see Attachment B for details.

6. *If a vehicle was not purchased in the highest fuel rating category, what was the basis for purchasing a vehicle in the next highest fuel rating category?*

A waiver is needed from DEP in order to select a vehicle in the next rating category. In FY 2018, DEP issued no waivers.

7. *What is the percentage increase in fuel economy? Target of 5% to 25%.*

The average fuel economy was 100.2, which exceeds the required reduction of 25% by Fiscal Year 2018 by obtaining a 31% increase. The baseline 2005 average fuel economy was 31.1 miles per gallon.

8. *What is the estimated amount of fuel consumed by motor vehicle, disaggregated by vehicle type?*

The chart below is based on the Gas Card System, which shows an increase in consumption of diesel since 2005. The increase in diesel use is because emergency services makes greater use of the gas card program for diesel fueling. There was a decrease in gasoline consumption across the entire city fleet (light and medium duty vehicles) since 2005.

2005 Gallons of Diesel	2018 Gallons of Diesel
337,554	1,115,718

2005 Gallons of Gasoline	2018 Gallons of Gasoline
2,828,217	2,514,147

9. *What is the estimated total amount of equivalent carbon dioxide emitted for each type of fuel consumed by motor vehicles, disaggregated by fuel type?*

<b>CO<sub>2</sub> Calculations for Local Law 38 Fiscal Year 2018</b>		
<b>Year</b>	<b>2005</b>	<b>2018</b>
Gasoline Consumed (gal)	2,828,217	2,514,147
CO <sub>2</sub> emissions (lbs)	54,867,410	48,774,451.8
Diesel Consumed (gal)	337,554	1,115,718
CO <sub>2</sub> emissions (lbs)	7,493,699	24,545,796
<b>Total CO<sub>2</sub> Emissions (lbs)</b>	<b>62,361,109</b>	<b>73,320,247.8</b>
<b>Reduction (lbs)</b>	NA	<b>10,959,138.8</b>
<b>Reduction (%)</b>	NA	<b>(17.5%)</b>

Attachment A

Emissions Ratings on City Requirements Contracts for Fiscal Year 2018

Vehicle Type	ZEV	TZEV	APTZEV	SULEV	ULEV	LEV
<b>Light Duty Vehicles</b>						
<b>Medium Sedan</b>						
Toyota Prius, Prime		158				
Toyota Camry Hybrid				3		
Ford Fusion, Energi		97				
Chevrolet Bolt Crossover	112*					
<b>Regular Size Van</b>						
Chrysler Pacifica					1	
Chrysler Pacifica Hybrid				1		
<b>Small-Size Sports Utility Vehicles</b>						
Toyota Rav 4 Hybrid				104		
<b>Mid-size Sport Utility Vehicles</b>						
Toyota Highlander Hybrid				5		
Chevrolet Suburban					1	
Chevrolet Tahoe					1	
<b>Light Duty Pickups</b>						
Ford F-150					4	
<b>Medium Duty Vehicles</b>						
<b>Medium Duty Vans</b>						
Chevrolet Express Van					1	
Chevrolet Express Van 3500					32	
Ford Transit 150					17	

\* As per 24-163.1(b)(2), The city shall not be required to purchase a zero emission vehicle or advanced technology partial zero emission vehicle in accordance with paragraph one of this subdivision if the only available vehicle or vehicles that achieve such a rating cost greater than fifty percent more than the lowest bid as determined by the applicable procurement process for a vehicle available in the next highest rating category that meets the requirements for the intended use by the city of such vehicle or if, after consultation with the affected agency, the commissioner determines that the use of such vehicle would be impractical or would unduly hinder the operations of a city agency, or if the commissioner determines that the city lacks the charging and fueling infrastructure to support use of such a vehicle, provided that the next highest rating category that meets the requirements for the intended use by the city of such vehicle shall be selected.

**Emission Ratings**

(As defined by the California Air Resources Board)

[www.driveclean.ca.gov](http://www.driveclean.ca.gov)

**ZEV: Zero Emission Vehicles**

ZEVs have zero tailpipe emissions and are 98% cleaner than the average new model year vehicle. These include battery electric vehicles and hydrogen fuel cell vehicles.

**TZEV: Transitional Zero Emission Vehicle**

TZEV is the new terminology for Enhanced Advanced Technology Partial Zero Emission Vehicle and meet the same requirements of an enhanced AT PZEV and have additional "ZEV-like" characteristics. A dedicated compressed natural gas vehicle or a hybrid vehicle with engine emissions that meet the PZEV standards.

**AT PZEV: Advanced Technology PZEVs**

AT PZEVs meet the PZEV requirements and have additional "ZEV-like" characteristics. A dedicated compressed natural gas vehicle or a hybrid vehicle with engine emissions that meet the PZEV standards would be an AT PZEV.

**SULEV: Super Ultra Low Emission Vehicle**

SULEVs are 90% cleaner than the average new model year car.

**ULEV: Ultra Low Emission Vehicles**

ULEVs are 50% cleaner than the average new model year car.

**LEV: Low Emission Vehicle**

Minimum rating that will meet California Air Resources Board standards.

Attachment B

CITYWIDE LIGHT DUTY VEHICLE PURCHASES FISCAL YEAR 2018 CALCULATION OF AVERAGE CITY MILEAGE AS REQUIRED FOR LOCAL LAW 38 REPORTING				
VEHICLE TYPE	NUMBER PROCURED IN FY'18	FUEL TYPE	EPA MPG CITY	WEIGHTED FACTOR (COL. B x COL. C)
CHEVROLET BOLT	112	ELECTRIC	128	14,336
CHEVROLET SUBURBAN	1	GAS	15	15
CHEVROLET TAHOE	1	GAS	16	16
CHRYSLER PACIFICA	1	GAS	18	18
CHRYSLER PACIFICA HYBRID	1	ELECTRIC/GAS	84	84
FORD F150	4	GAS	16	64
FORD FUSION ENERGI, PLUGIN	97	ELECTRIC/GAS	97	9,409
TOYOTA CAMRY HYBRID	3	ELECTRIC/GAS	51	153
TOYOTA PRIUS PRIME, PLUGIN	158	ELECTRIC/GAS	133	21,014
TOYOTA HIGHLANDER HYBRID	5	ELECTRIC/GAS	29	145
TOYOTA RAV4 HYBRID	104	ELECTRIC/GAS	34	3,536
<b>GRAND TOTALS</b>	<b>487</b>			<b>48,790</b>
AVERAGE CITY MILEAGE FOR LIGHT DUTY VEHICLES PURCHASED IN FY'18				100.2