

Fleet Sustainability, Citywide Fact Sheet

Alternative Fleet Assets

- New York City currently operates 6,142 units that were designed as alternative fuel vehicles. An additional 7,689 units are fueled by biodiesel, either B5 or B20. In total, 13,831 or 52% of the citywide fleet runs on some type of alternative fuel.
- NYC Sanitation leads the way with 93% of their combined units using some type of alternative fuel.
- Hybrid technology is by far the largest equipment investment with 5,493 units in operation, including some 38 diesel-electric Eaton hybrids and 108 plug in hybrids. The city also operates plug in electric vehicles.

	DCAS	FDNY	Health	DOC	NYPD	DOT	DSNY	DOE	DEP	Parks	Total
CNG	6	0	0	0	0	0	42	0	0	88	136
Biodiesel	0	0	0	214	809	974	4310	0	605	776	7689
Diesel	116	1697	4	0	0	247	0	24	0	0	2088
Diesel Hybrid	5	2	0	4	0	8	13	0	1	15	48
Electric	28	27	0	4	65	14	61	1	126	184	510
Electric / Gas Hybrid	1255	76	182	52	1508	526	826	71	508	333	5337
Gas	663	383	94	244	6398	630	385	207	779	1020	10803
Plug in Hybrid	16	2	0	0	22	11	21	8	5	23	108
Propane	1	0	0	0	4	6	0	0	24	3	38
Solar	0	0	0	0	0	0	0	0	0	3	3
Total	2090	2187	280	519	8806	2416	5658	311	2048	2445	26760
AFV %	63%	5%	65%	53%	27%	63%	93%	26%	61%	58%	52%

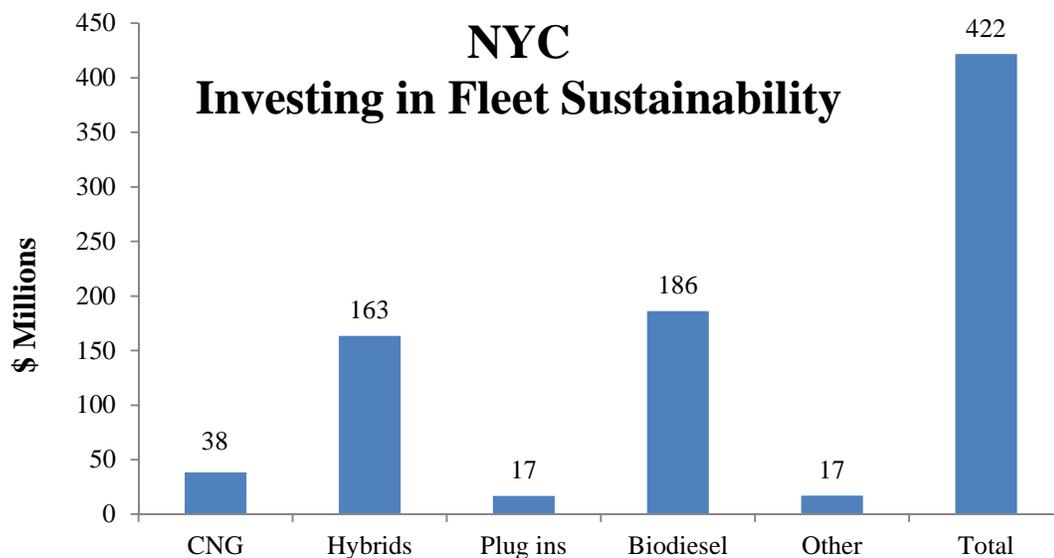
Fuel Type	Total	Percent of Total Fleet
Non Alternative Fuel	12929	48%
EV's	618	2%
Hybrid	5385	20%
CNG	136	1%
Solar	3	.01%
Biodiesel	7689	29%
Total Alternative Fuel	13831	52%

Reducing fuel use

- NYC's Fleet reduced total fuel use by 2.4 million gallons or 4% from FY 2011 to FY 2013.
- In the last five years, NYPD and Parks invested in new automated fuel tracking systems. The City is now planning to roll this out for the entire in-house fuel operation of 200 sites.

Investing in alternatives

- In fleet and fuel, NYC estimates it has invested over \$420 million in sustainable alternatives.



- Since 1994, NYC has received over \$36 million from the Federal Clean Cities CMAQ program administered through NYC's Department of Transportation.
- Many companies have donated alternative fuel units including Daimler Chrysler, Toyota, and others.
- In 2012, the New York Power Authority (NYPA) granted \$180,000 to DCAS to support plug in electric investment, one of many NYPA support projects. In 2013, NYPA granted \$75,000 to DCAS.
- NYC Fleet works closely with the non-profit Clean Cities coalition, the National Biodiesel Board (NBB) and others to advance these efforts.

Mayoral (PLANYC) and local mandates support fleet sustainability

- Mayor Bloomberg's environmental vision, PLANYC, sets a goal of reducing greenhouse gas emissions by 30% below FY2006 levels by 2017. NYC Fleet's efforts are guided by these goals and fleet sustainability has received tremendous support and investment.

- City Local Law 38 (2005) also requires the city in most cases to buy the lowest polluting vehicle in each category of light and medium duty vehicles, and to achieve a 20% reduction in fuel consumption based on fuel efficiency standards by 2015. NYC Fleet has already performed well above these targets. Average fuel efficiency of new purchases increased from 31.1 miles per gallon in FY 05 to 42.3 miles per gallon in FY 12, a 36% increase in miles per gallon. NYC Fleet works closely with NYC DEP to enforce these rules.

Reducing diesel tailpipe emissions

- In compliance with two New York City Local Laws (#39 of 2005 and #77 of 2003) NYC Fleet is ensuring that all diesel equipment, on and off road, has the best in emissions reducing technology.
- Currently 5,247 on-road vehicles citywide have either the latest diesel emissions reduction technologies, or the best available retrofit technology (BART), usually Diesel Oxidation Catalysts (DOCs) or Diesel Particulate Filters (DPFs). NYC retrofitted 1,775 vehicles through this initiative.

Leadership in biodiesel use

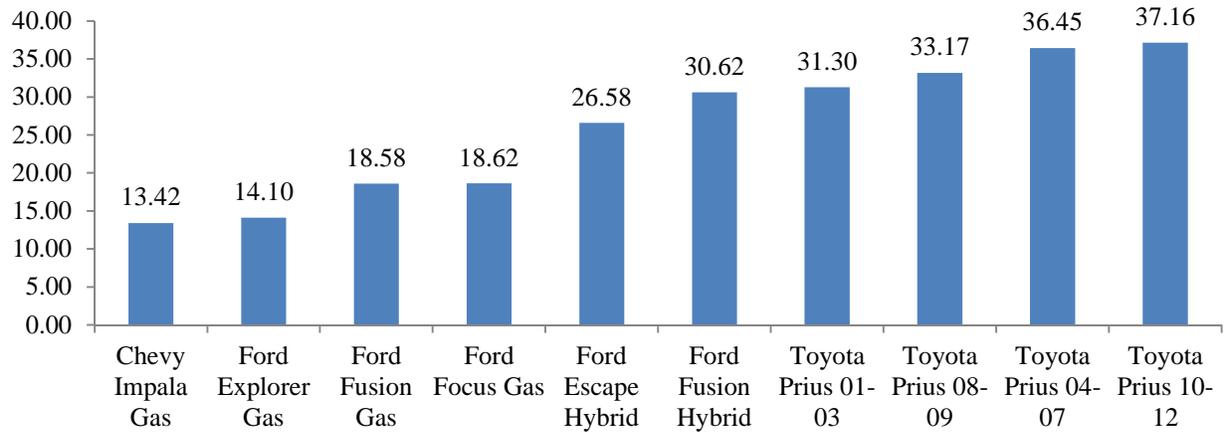
- Since 2007, Parks and Sanitation have been leading in use of biodiesel. Parks operates its entire diesel fleet on B20, and has piloted B50 and B100. Sanitation operates the nation's largest public works agency and exclusively uses biodiesel, and in 2013 Sanitation began using B20 for its entire diesel fleet.
- In 2012, Corrections and DEP transitioned to biodiesel use. NYPD transitioned to biodiesel in 2013. Transportation and Fire are working to expand biodiesel use. The City's plan is to exclusively use biodiesel blends (B5) for the diesel on-road fleet by the end of 2013.
- Biodiesel blend use as a percent of all in house diesel fuel use was 63% in FY 12 and 71% in FY13. As of June 2013, 74% of in house diesel use was biodiesel. Agency biodiesel blend usage was 9,258,142 gallons in FY 12 and 11,925,594 gallons in FY13. The biodiesel component of diesel fueling was 547,395 and 797,678 gallons in FY12 and FY13 respectively.

The Nation's largest hybrid fleet

- With almost 5,500 units, NYC may operate the nation's largest fleet of hybrids. In actual fuel economy tracking, NYC has achieved 50% or more reduction in fuel use. Studies by NYPD have also shown that hybrids overheat less often than gas units, increasing reliability.

MPG

Actual Fuel Economy, NYC, 2012



- NYC has invested in many brands of hybrid and ultra-low emissions vehicles including:
 - Toyota Prius and Highlander: 2,676
 - Ford Fusion and Escape: 1,546
 - Honda Civic 162
 - Chevrolet Silverado and GMC Yukon 62
 - Nissan Altima 243
 - Kenworth Eaton diesel electric hybrids 39

The World's Greenest Police Fleet

- NYPD is exempt from NYC's Local Laws on fleet alternatives due to its critical emergency role. Despite this, the NYPD is now a leader in alternative fuel implementation.
- NYPD began their fleet sustainability efforts with in 2002 with 5 unmarked hybrid Toyota Prius vehicles used for administrative functions. NYPD now uses 1,595 vehicles that are hybrid, plug in, or all electric, including marked patrol cars and 1 person electric scooters.
- NYPD reduced annual fuel use from 10,035,498 gallons in FY 08 to 8,845,730 gallons in FY 13, a reduction of 1,189,768 gallons annually.
- The Park Enforcement Patrol (PEP) division of Parks operates an entire fleet of 75 alternative fuel units for safety patrols in Parks.

Plugging in to the future

- NYC Fleet is expanding its plug in electric efforts. NYC recently doubled its GM VOLT fleet to 104 units, one of the largest fleets of Volts in the nation. In 2013, the City purchased 17 Ford Focus EVs and 43 Nissan Leafs. NYC also operates 9 Ford Transit Connect and 1 Navistar EV vans.
- The City currently operates 118 EV in-house charging stations with more planned.
- For almost a decade, Parks has used nearly 200 all electric carts to provide staff and quiet maintenance and security of park sites citywide.

- NYC Fleet is partnering with others to expand plug in use. DCAS recently supported the City Department of Education with its first 7 plug in electric vehicles, to support education programs and to introduce New York City's kids to EV's. Taxi (TLC) is piloting 6 all electric Nissan Leaf taxis, and NYC Fleet is working with Zipcar to expand EV options. The Mayor's Office of Sustainability is promoting a Missions Electric initiative to promote public and private EV implementation.

DSNY Alternative Fuels Laboratory

- DSNY opened a state of the art heavy duty vehicle emissions testing laboratory in 2010 to test fuel efficiency and emissions of the various models that DSNY uses. DSNY has tested numerous models of alternative fuel vehicles including:
 - CNG refuse trucks
 - Diesel refuse trucks
 - Diesel hybrid electric refuse trucks
 - Diesel hybrid hydraulic refuse trucks
 - CNG sweepers
 - Diesel sweepers
- The lab has started to provide testing services to other agencies and companies including:
 - Testing a hybrid diesel hydraulic yard hustler for the EPA
 - Comparison testing of several yard hustlers for NYPA

Compressed Natural Gas (CNG)

- New York City built and operates three CNG fueling sites: in Central Park, Flushing Meadows Corona Park, and at a Sanitation facility in Woodside, Queens.
- The fleet includes 81 Honda Civic CNG sedans, 22 sweepers and 21 collection trucks at Sanitation, 10 vans, and 2 Ford utility units.

Solar

- Parks operates three solar units: 2 Bad Boy utility vehicles donated by BP in May 2007 and a first solar-electric light tower purchased from Progress Solar Solutions in January 2012. Parks has also piloted solar retrofits on other electric carts.

Recognition of NYC Fleet and Sustainability

- NYC and Parks won the first Greenest Fleet Award from National Association of Fleet Administrators (NAFA) in 2008.
- Parks won Fleet of the Year (Vocational) from *Fleet Owner Magazine* in 2008. Sanitation won the very next year.
- NYC won Government Green Fleet Awards from *Automotive Fleet News* in 2009, 2010, 2011 and this October 2012. The City as a whole, along with NYPD, Parks, DSNY and DCAs individually have all been recognized in this national green fleet award contest.
- DCAS Managed Fleet won Top 100 Fleets in the U.S. from *Government Fleet News* in 2008, 2010, and 2012, and NYC Fleet won in 2013.
- Parks won 100 Best Fleets in North America in 2010 and 2011.

- Parks won Government Green Fleet Award from 100 Best Fleets in 2010 and 2011.
- Parks won an Eye on Biodiesel Award in 2011.
- OFA won a Fleet Environmental Leadership Award from *Government Fleet News* in 2009.
- NYPD won 100 best fleets each year 2008 to 2011.
- Parks was 1 of 3 organizations to win the inaugural round of Green Fleet Certifications from Empire Clean Cities in May 2013.

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