# Tentative Plans for Taxicab Greening Over a Minimum Five Year Period

# 3

#### How the Plan Becomes the Requirement

The taxicab greening plan will be authorized by the Board of Taxicab Commissioners as stated in the franchise ordinances. The Board will receive recommendations from the Department and hold public hearings to discuss the greening plan. The taxicab industry, public, other City officials and interested parties will provide comments and discussion. After hearing comments, the Board will approve a Resolution stating the terms and conditions of the new taxicab greening program.

Each taxicab renewal ordinance will be published and provided to the various taxicab franchisees. They will also be provided with the Board's greening program. Each operator must provide a signed statement, addressed to the Council, accepting the terms and conditions of the Replacement Franchise Ordinance, agreeing to comply with all the provisions. This would include the new greening program.

Should any current taxicab operator elect not to sign such a statement, the renewal (replacement) franchise ordinance would become void and null, and the current franchise would be allowed to expire without replacement.

#### How the Green Program Will Be Enforced

The City will monitor the addition of all green taxi vehicles each year and report the changes to the Board of Taxicab Commissioners. Should any operator miss their annual targets, the Board may apply monetary penalties, suspend service from areas of the City and/or the airport, and may recommend revocation of the franchise to the City Council. All such provisions are included in each franchise ordinance, Section 2.2.

Similar to the previous franchise period, each operator will be provided with the minimum greening requirements and will be required to achieve those standards internally. The Department will continue to review any potential opportunities for financial aid or grants to aid vehicle purchases by taxicab owners.

## Basics of the Taxicab Greening Program

Greening will include reductions in both smog pollution and green house gas emissions. The Board of Taxicab Commissioners will provide for the final greening mandates, but tentative greening discussions will provide for the following baseline conditions.

- Each taxicab fleet will be allowed to have exemptions from greening requirements for wheelchair accessible vehicles and approximately 20% of the remaining fleet total for large vehicles (seating at least six to seven passengers) to incorporate multi-passenger trip requirements. These 648 vehicles (comprising 222 wheelchair accessible vans and 426 large vehicles) equates to approximately 27% of the total 2,353 taxicab fleet. The total number of vehicles for greening would be 1,705.
- The remaining fleet vehicles (1,705 vehicles) must be replaced with improved emission vehicles (pollution and green house gas reductions) each year for the next five years. The first year greening requirement may be slightly lower than later years as availability in the market place for these used hybrid and other high fuel efficiency vehicles will increase over time. It is anticipated that the Board may mandate the annual percentage of the 1,705 vehicles for greening each year at approximately 16% for the first year followed by 21% the following four years. This would mean that approximately 273 vehicles would be permitted as green taxicabs by the end of 2011, followed by an additional 358 vehicles each following year. <u>Attachment A</u> providente estimated annual reductions in smog and green house gases over a five year period.

Trans Committee Council File No: 10-099 Item No.: Deputy

10-13-10

- Vehicles to be considered as green will include new and used hybrid and other high mile-per-gallon (mpg) vehicles with low smog pollution levels.
- Vehicle age restrictions and potential added airport access will be based on both the smog pollution emission level and mile per gallon rating of replacement vehicles. Currently, most vehicles are required to be less than four years of age when placed into taxicab service, and must be removed from service at nine years. The tentative greening program will most likely consider different greening levels along with different age and airport access conditions.

## **Potential Greening Levels**

<u>Level 1</u> - Minimum level "green" vehicles may be vehicles of Super Ultra Low Emission Vehicle (SULEV) smog pollution condition and at least 24 mile per gallon average fuel economy. Such vehicles would be provided no added airport access and may be inserted by four years and removed by the eighth year (4 in - 8 out).

<u>Level 2</u> – SULEV emission and 25 to 29 mile per gallon fuel rating. Such vehicles would be provided no added airport access and would be inserted by four years and out by the ninth year (4 in - 9 out).

<u>Level 3</u> – ULEV emission and at least 30 mile per gallon fuel rating. Such vehicles would be provided no added airport access and would be inserted by four years and out by the ninth year (4 in - 9 out).

<u>Level 4</u> – SULEV emission and at least 30 mile per gallon fuel rating. Such vehicles may be provided additional airport access (such as Sundays for approximately six months during the first 18 months of the new franchise period). They may be inserted by four years and out by the  $10^{th}$  year (4 in – 10 out).

<u>Level 5</u> – ULEV emission and hybrid or alternative clean fuel vehicle (such as CNG or clean diesel). Such vehicles would be provided no added airport access and would be inserted by four years and out by the  $9^{th}$  year (4 in – 9 out).

<u>Level 6</u> - SULEV emission and hybrid or alternative clean fuel vehicle (such as CNG or clean diesel). Such vehicles may be provided additional airport access (such as Sundays for approximately six months during the first 18 months of the new franchise period). They may be inserted by five years and out by the  $10^{\text{th}}$  year (5 in – 10 out). The additional year to place these vehicles into taxi service will further aid vehicle owners to find used hybrid vehicles.

See <u>Attachment B</u> for the potential vehicle choices currently available in the above categories. It is anticipated that additional vehicles will added to the list each year. Taxicab owners/operators may also suggest other vehicles for approval should they become available. A summary of the tentative vehicle "greening" levels, potential age rules (in and out of service), and airport access is as follows:

		Mile	s Per Gal	lon	Smog	g Level	V				
Level	Hybrid/Alt Fuel	24 mpg	25-29 mpg	30+ mpg	ULEV	SULEV	4-8 yrs	4-9 yrs	4-10 yrs	5-10 yrs	Airport Extra
1	No	Х				Х	Х				No
2	No		Х			X		X			No
3	No			Х	X			X			No
4	No			Х		X			X		Yes
5	Yes	Х	Х	Х	X			Х			No
6	Yes	Х	Х	Х		X				Х	Yes

# Smog Pollution and Green House Gas Vehicle Emission Reductions for LA Taxicabs

	Potential Poductions in Smort Pollution and				GHG		
	Clio Emission Automa Tavi Elect Emissions	Vehicle Mix	Smog	Smog	(tons	GHG	Total
	GHG Emission - Average Taxi Fleet Emissions		(lbs/yr)	Reduce	CO2/yr)	Reduce	Reduce
	Average Fleet Vehicle Emissions from 1999 to 2003	Tier 1 Vehicles Only	47.3	n/a	34.1	n/a	n/a
	Average Fleet Vehicle Emissions as of June 1, 2010 - base	mix of Tier 1 & Tier 2 vehicles	32.5	n/a	33.8	n/a	n/a
Proposed	Ave Fleet Vehicle Emissions end of 2011 - 273 clean taxis	~ 12% fleet as hybrids, CNG & high MPG	21.1	35%	32.0	5.3%	40%
	Ave Fleet Vehicle Emissions end of 2012 - 631 clean taxis	~ 27% fleet as hybrids, CNG & high MPG	17.3	47%	29.4	13.0%	60%
	Ave Fleet Vehicle Emissions end of 2013 - 989 clean taxis	~ 42% fleet as hybrids, CNG & high MPG	13.2	59%	26.8	20.7%	80%
	Ave Fleet Vehicle Emissions end of 2014 - 1347 clean taxis	~ 57% fleet as hybrids, CNG & high MPG	9.9	70%	24.2	28.4%	98%
	Ave Fleet Vehicle Emissions end of 2015 - 1705 clean taxis	~ 72% fleet as hybrids, CNG & high MPG	7.4	77%	21.6	36.1%	113%



Potential Green Vehicle Emissions for Smog & Green House Gas (mpg est @ 70% city & 30% hwy - 60,000 miles/year)															
Potential Green Vehicle List Levels 1-6	Vehicle Type	Fuel	Model Years	Pas Trur Caj	sseng nk & T pacity	er, otal , cf	Engine Size	mpg City/Hwy	mpg ave	Smog Level	Smog (Ib/yr)	GHG (tons CO2/yr)	veh age changes & airport incentives	Air Pollution Score	Green House Score
Level 1 - SULEV & 24 mpg												B. W. L.			
Saturn Aura Gasoline '09	midsize	gasoline	2009	98	16	114	2.4L/4cyl	22/33	24.4	sulev-pzev	3.97	24.06	4-8; no LAX xtra	9.5	7.0
Toyota Camry Gasoline '10	midsize	gasoline	2010	101	15	116	2.4L/4cyl	22/32	24.3	sulev-pzev	3.97	23.96	4-8; no LAX xtra	9.5	7.0
Hyundai Sonata '09-'10	large sedan	gasoline	'09-'10	105	16	121	2.4L/4cyl	22/32	24.3	sulev-pzev	3.97	24.93	4-8; no LAX xtra	9.5	7.0
Level 2 - SULEV & 25-29 mpg				71.20.2					NE YE		C. Starter				
Hyundai Elantra '07+	midsize	gasoline	2007+	98	14	112	2.0L/4cyl	25/33	27.0	sulev-pzev	3.97	21.98	4-9; no LAX xtra	9.5	8.0
Kia Spectra '07-'09	midsize	gasoline	2007+	98	15	113	2.0L/4cyl	24/32	25.9	sulev-pzev	3.97	22.80	4-9; no LAX xtra	9.5	7.0
Nissan Altima Gasoline '07-'10	midsize	gasoline	2007+	101	15	116	2.5L/4cyl	23/31	24.9	sulev-pzev	3.97	23.72	4-9; no LAX xtra	9.5	7.0
Nissan Sentra '10	midsize	gasoline	2010	97	13	110	2.0L/4cyl	26/34	28.0	sulev-pzev	3.97	21.21	4-9; no LAX xtra	9.5	8.0
Nissan Sentra '09	midsize	gasoline	2009	97	13	110	2.0L/4cyl	25/33	27.0	sulev	3.97	21.98	4-9; no LAX xtra	9.0	8.0
Volkswagen Jetta Wagon '10	small wgn	gasoline	2010	74	33	107	2.5L/5cyl	23/30	24.7	sulev-pzev	3.97	24.56	4-9; no LAX xtra	9.5	7.0
Level 3 - ULEV & 30+ mpg															1.20
Volkswagen Jetta Wagon '10	small wgn	diesel	2010	74	33	107	2.0L/4cyl	30/42	32.8	ulev	16.54	20.82	4-9; no LAX xtra	7.0	8.0
Level 4 - SULEV & 30+ mpg		100						S. S.	No.	1. 12. 1				16.6	
none available at this time															
Level 5 - ULEV & Hybrid or CNG		19.00		-							-		1		276.74
Chevy Malibu if ULEV emission obtained															
Level 6 - SULEV & Hybrid or CNG			3. 3. 3	-									len la la la la		
Honda Civic GX CNG '06+	compact CNG	CNG	2006+	90	6	96	1.8L/4cyl	24/36	26.7	sulev-pzev	3.97	18.04	4-10; yes LAX xtra	9.5	9.0
Honda Civic Hybrid '07+	compact Hybrid	gasoline	2007+	91	10	101	1.3L/4cyl	40/45	41.4	sulev-pzev	3.97	14.37	4-10; yes LAX xtra	9.5	10.0
Honda Insight Hybrid '10	compact Hybrid	gasoline	2010	85	16	101	1.3L/4cyl	40/43	40.9	sulev-pzev	3.97	14.64	4-10; yes LAX xtra	9.5	10.0
Lexus HS 250H Hybrid '10	compact Hybrid	gasoline	2010	90	12	102	2.4L/4cyl	35/34	34.7	sulev	3.97	16.85	4-10; yes LAX xtra	9.0	9.0
Ford Fusion/Merc Milan Hybrid '10	midsize Hybrid	gasoline	2010	101	16	117	2.5L/4cyl	41/36	39.4	sulev-pzev	3.97	14.90	4-10; yes LAX xtra	9.5	10.0
Nissan Altima Hybrid '07-'10	midsize Hybrid	gasoline	2007+	101	10	111	2.5L/4cyl	35/33	34.4	sulev-pzev	3.97	17.25	4-10; yes LAX xtra	9.5	9.0
Toyota Camry Hybrid '07+	midsize Hybrid	gasoline	2007+	101	11	112	2.4L/4cyl	33/34	33.3	sulev-pzev	3.97	17.48	4-10; yes LAX xtra	9.5	9.0
Toyota Prius Hybrid '10	midsize Hybrid	gasoline	2010	94	21	115	1.8L/4cyl	51/48	50.1	sulev-pzev	3.97	11.77	4-10; yes LAX xtra	9.5	10.0
Toyota Prius Hybrid '06-'09	midsize Hybrid	gasoline	'06-'09	96	16	112	1.5L/4cyl	48/45	47.1	sulev-pzev	3.97	12.79	4-10; yes LAX xtra	9.5	10.0
Ford CV CNG '07+	large car CNG	CNG	2007+	111	14	125	4.6L/8cyl	17/24	17.8	sulev	3.97	26.13	4-10; yes LAX xtra		
Ford Escape/Mariner Hybrid 2wd '10	suv Hybrid	gasoline	2010	100	28	128	2.5L/4cyl	34/31	33.0	sulev-pzev	3.97	18.22	4-10; yes LAX xtra	9.5	9.0
Ford Escape/Mariner Hybrid 2wd '09	suv Hybrid	gasoline	2009	100	28	128	2.5L/4cyl	34/31	33.0	sulev-pzev	3.97	18.22	4-10; yes LAX xtra	9.5	9.0
Ford Escape/Mariner Hybrid 2wd '08	suv Hybrid	gasoline	2008	100	28	128	2.3L/4cyl	34/30	32.7	sulev-pzev	3.97	18.13	4-10; yes LAX xtra	9.5	9.0
Ford Escape/Mariner Hybrid 2wd '07	suv Hybrid	gasoline	2007	100	28	128	2.3L/4cyl	31/29	30.4	sulev-pzev	3.97	19.52	4-10; yes LAX xtra	9.5	8.0
Ford Escape/Mariner Hybrid 2wd '06	suv Hybrid	gasoline	2006	100	28	128	2.3L/4cyl	30/28	29.4	sulev-pzev	3.97	20.19	4-10; yes LAX xtra	9.5	8.0
Lexus RX 450h Hybrid 2wd '10	suv Hybrid	gasoline	2010				3.5L/6cyl	32/28	30.7	sulev	3.97	19.32	4-10; yes LAX xtra	9.0	8.0
Lexus RX 400h Hybrid 2wd '08	suv Hybrid	gasoline	2008		38		3.3L/6cyl	27/24	26.0	sulev	3.97	23.22	4-10; yes LAX xtra	9.0	7.0
Lexus RX 400h Hybrid 2wd '06-'07	suv Hybrid	gasoline	2006-07		38		3.3L/6cyl	28/25	27.0	sulev	3.97	22.33	4-10; yes LAX xtra	9.0	8.0
Toytoa Highlander Hybrid '06+	suv Hybrid	gasoline	2006+	136	10	146	3.3L/6cyl	27/25	26.4	sulev	3.97	22.46	4-10; yes LAX xtra	9.0	8.0
Note: Smog Pollution Levels from Califor	rnia Air Resource	s Board (C/	ARB) Certi	fication	Webs	site at	www.arb.	ca.gov/mspi	rog/onra	aod/cert/cert.	php				
Note: mpg & Green House Gas baseline I	levels from US En	vironmenta	I Protectio	n Ager	ncy - G	ireen \	Vehicle Gu	ide website	at www	v.epa.gov/gre	envehic	les/Index.do;	jsessionid=8230f0b	44c805929	32f6