



Clean Transportation Program

Brief, Nov 25

*New Energy Vehicles Commercialization Plan:
Regional Pressures, Small Vehicles Performance and a National Transferability Example*

Following the State Council's new guideline¹ for advancing the commercialization of New Energy Vehicles (NEV), MIIT and six other ministries have jointly published the first batch of 17 passenger NEV models eligible for purchase tax exemption in September² and the second batch of 28 more eligible passenger NEV models in October 2014³. The first list represented 56% of passenger NEVs (pure and hybrid electric vehicles) produced in September, while the combined list (see **Table 1**) comprised 84% of NEVs produced in October. Interestingly, while NEVs (passenger and other) production pace in September was 11 times that of the previous year reaching 10,113 (of which 35% were passenger Pure Electric Vehicles, PEVs), October saw a sharp increase of 24 times the production volume compared to the same month in the previous year but with a total volume of only 5,685 NEVs (of which 40% were passenger PEVs).

By October 2014, the cumulative production of NEVs reached 47k, representing a 5 folds year-on-year increase and a 0.3% of total vehicle production, as oppose to 0.06% in the same period of previous year. Passenger PEVs grew 7 folds reaching over 22k, while plug-in hybrids grew 20 folds, reaching just over 10k. Meanwhile, commercial PEVs and PHEVs increased by only 1.3 and 1.8 folds respectively, suggesting the next big market for electrification already is the private vehicle market⁴. Furthermore, production and sales figures have decreased in gap over time indicating NEVs passenger vehicle manufacturing is not only serving manufacturers' EV identity positioning and government obedience but actually may be seeing profitable production⁵. Now infrastructure stakeholders' from regulatory advocates to deployment and operation companies should come on stage for making this an increasing trend⁶. And indeed, in October 2014, six cities have published their cumulative NEV commercialization targets, in

¹ <http://chinaafc.miit.gov.cn/n2257/n2260/c95050/content.html>

² <http://chinaafc.miit.gov.cn/n2257/n2339/c96028/content.html>

³ <http://chinaafc.miit.gov.cn/n2257/n2260/c96310/content.html>

⁴ <http://chinaafc.miit.gov.cn/n2257/n2260/c96570/content.html>

⁵ <http://www.51report.com/free/3052591.html>

⁶ As noted in [iCETs earlier Policy Brief](#), China Unicom has recently signed a charging infrastructure collaboration agreement with Tesla motors.



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accordance to the national government NEVs commercialization action plan for 2014-2015⁷. Implementation of these targets (see **Table 2 and 3**), mainly charging networks, will be more effective and scalable than previous pilot-city efforts⁸.

87% of the combined list of exempt passenger NEVs is comprised of small vehicles⁹; the remaining 13% are SUVs. Small vehicles are indeed the first commercial EV niche market, led by Zotye Zhidou and BYD Qin for PEVs and PHEVs respectively. Zotye Zhidou is a mini-car produced by a small independent manufacturer with no on-road experience, which partnered with Zotye for improving its brand identity¹⁰. A case study of BYD's Qin (a 1.5L PHEVs) shows that its cumulative sales reached 11,179 in October after an average of 1.7k monthly sales in September and October alone following the NEVs tax exemption eligibility (60% monthly sales higher than PEVs). However, most sales are suspected to be driven by the decreased vehicle cost derived from its electric engine rather than a true desire to internalize its electric features: over half of Qin's purchases are by individuals from Shanghai, where an ICE license plate costs RMB 74k on average¹¹ (yes, BYD publishes a detailed list of its sales! An example to Chinese Big Auto...) and NEV license plate costs 0. As of October 2014¹², China has a total of 88 NEVs demonstration cities of which 15 have already introduced local purchase subsidy (see **Table 4**).

Table 1: List of 17+28 NEV models approved for purchase tax exemption (all are PEVs)

Company	Vehicle Model	Vehicle Name	Range	Curb Weight (kg)	Battery Weight (kg)	Battery Capacity (kWh)
Changan Automobile	SC7005EV	E30	120	1610	380	32/29
Lifan	LF7002CEV	Lifan 620	130	1350	290	24/20
	LF7002EV	Lifan620	140	1490	300/270	30
FAW	CA7005EV1	BesturnEV	100	1425	167	19

⁷ <http://www.miit.gov.cn/n11293472/n11295142/n11299183/16174863.html>

⁸ Huiming, Wang et al. (2013) *New energy vehicles in China: policies, demonstration, and progress*, Mitigation and Adaptation Strategies for Global Change, Vol. 18(2), pp. 207-228
<http://link.springer.com/article/10.1007/s11027-012-9358-6>

⁹ It ICE sister model is an A0/A00-class car, wheelbase between 2 and 2.5 meters, engine displacement generally between 0.8 and 1.6 liters.

¹⁰ http://www.evcar.com/about_index.php

¹¹ http://www.chinadaily.com.cn/hqgj/jryw/2014-11-15/content_12720261.html

¹² <http://www.bloomberg.com/news/2014-10-29/tesla-car-owners-get-12-000-shanghai-plates-for-free.html>



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	CA7005EV3	BesturnEV	200	1608	350	45
Zhengzhou	ZN6493H2YBEV	SUV EV	130	2070	360	40
NISSAN	ZN6494H2YBEV	SUV EV	130	2160	380	38
GEELY	SMA7000BEV	Kangdi EV	150	1160	300/310	21
	SMA7001BEV	Kangdi EV	150	1200	300/310	21
Sichuan Yema	SQJ6452BEV	—	120	1630	500/550	32/45
Shanghai GM	SGM7001EV	Springo	152	1385	265	21
Shanghai Auto	CSA7000BEV	Rowe E50	120	1080	235	18
Chery	SQR7000BEVJ00	Chery eQ	151	1128	256	22
	SQR7000BEVS184	Riich M1 EV	80	1060	235	15
Brilliance Auto	SY7000BEVDAE	H230EV	80	1400	280	19
bmw-brilliance	BBA7000EV(ZIN ORO1E)	Zhinuo1E	150	1970	475	24
Jiangnan	JNJ7000EVM1	Zoyte M300EV	80	1620	167/181/165	20/22
	JNJ7000EVM3	Zoyte M300EV	80	1620	240	18
	JNJ7000EVZ	ZhidouA	85	670	168	12
	JNJ7000EVZ2	SKIO E20	250	760	220	19
	JNJ7000EVZ4	Zhidou301C	83	640	140	12
	JNJ7000EVZ5	Zhidou301B	84	670	160	12
Soueast-motor	DN7000MBEV	V3 EV	80	1330	260	20
DYK	YQZ7001BEV	HORKI	140	1425	290	22
DFMC	DFL7000B2BEV	e30	175	1494	273	24
	DFM7000H2ABE V	E30L	152	995/1025	228	18
	DFM7000H2BBE V	E30	100	920	180	17
	DFM7000H2CBE V	E30	100	920	180	15
	DFM7000H2DBE V	E30L	152	995/1025	228	18
BYD	QCJ7006BEVF	e6	322	2380	750	63
	QCJ7007BEV	DENZA	253	2090	550	48
Foton	BJ6438EV3-1	SUV EV	160	1510	300	36
Beijing-hyundai	BH7000BEVAAA	Shouwang 500e	160	1485	323	28
Baic Motor	BJ7000C7H1 — BEV	Shenbao EV	170	1760	375	38
	BJ7000C7H3 —	Shenbao EV	170	1760	341	38



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	BEV					
	BJ7000B3D1	— EV200	160	1370	285	26
	BEV					
	BJ5021XXYV3R1	Weiwang 307EV	150	1640	454	38
	— BEV					
	BJ6450L3R-BEV	Weiwang 307EV	150	1700	454	38
	BJ7000B3D2-BE V	E150EV	150	1370	277	28
	BJ7000B3D-BEV	E150EV	150	1370	272	23
	BJ7000C7H4-BE V	Shenbao EV	210	1760	355	44
	BJ7000C7H-BEV	Shenbao EV	120	1690	320	30
	BJ7001B3D2-BE V	EV200	200	1295	291	30
	BJ7002B3D-BEV	E150EV	150	1370	285	26
JAC	HFC7000AEV	iEV	152	1200	223	19

Table 2: City NEV commercialization status and targets

	City/Province	2013-2015 plan	Jan 2013-Sep 2014	
			Vehicles sold	% target achieved
1	Zhejiang (4 cities)	10100	5203	52%
2	Beijing	35020	4762	14%
3	Shenzhen	35000	4189	12%
4	Heifei	5720	4145	72%
5	Shanghai	10000	4022	40%
6	Jiangsu (6 cities)	18085	3118	17%
7	Tianjin	12000	1726	14%
8	Zhengzhou	5500	1423	26%
9	Guangdong (7 cities, excluding GZ)	10000	1369	14%
10	Guangzhou	10000	1241	12%
11	Chongqing	10000	995	10%
12	Hebei (10 cities)	13141	803	6%
13	Xian	11000	710	6%
14	Xiangyang	5000	561	11%
15	Qingdao	5200	510	10%
16	Changzhutan	6100	492	8%



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17	Taiyuan	5000	489	10%
18	Wuhan	10500	389	4%
19	Chengdu	5000	298	6%
20	Wuhu	5110	252	5%
21	Shenyang	5000	232	5%
22	Dalian	5000	225	5%
23	Yunnan (4 cities)	5000	223	4%
24	Weifang	5500	174	3%
25	Linyi	5690	173	3%
26	Guizhou (6 cities)	6000	166	3%
27	Xinxiang	5000	153	3%
28	Fujian (10 cities)	10000	153	2%
29	Ningbo	5000	119	2%
30	Jiangxi (7 cities)	5300	118	2%
31	Zibo	5000	63	1%
32	Luzhou	5000	48	1%
33	Changchun	10000	33	0%
34	Inner Mongolia (2 cities)	5000	25	1%
35	Harbin	5000	5	0%
36	Jincheng	6000	3	0%
37	Lanzhou	5000	3	0%
38	Liaocheng	5010	3	0%
39	Haikou	5000	0	0%

Table 3: Selected city NEV commercialization self-reported targets and status

	Beijing		Tianjin		Hebei		Total	
	2013 Actual	2015 Target	2013 Actual	2015 Target	2013 Actual	2015 Target	2013 Actual	2015 Target
Bus	1306	1597	137	2000	90	3775	1481	7372
Taxi (include rental company)	1944	2200	120	500	0	0	2071	2700



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Special Vehicles (Postal service, sanitation truck, freight etc.)	Freight		470		3380		1940		
	Sanitation truck	1909	1230	82	120	3		1987	7150
State-financed vehicle		216	N/A	14	N/A	0	N/A	216	N/A
Leasing vehicles		N/A	3000	N/A	0	N/A	0	N/A	3000
Full Cell commercial vehicle		N/A	10	N/A	0	N/A	0	N/A	10
Total Vehicle		5375	8507	353	6000	93	5715	5755	20222
Charging Station		7		9	49	2		18	49
Charger		2883	6748	471	4000	100	5455	3454	16203
Battery Swap Station			3 BEV, 1-2 Hydrogen		6		83		94

Table 4: Local matching NEV purchase subsidies

1:1 national/local ratio	13 cities/provinces: Beijing, Shanghai, Qingdao, Nanjing, Changzhou, Xi'an, Wuhan, Jiangsu, Tianjin, Nanchang, Luzhou, Hunan, Yanzhou and Guangdong province.
1:1 national/local ratio with declining slope	5 Cities: Beijing, Wuhan, Tianjin, Xi'an, Luzhou
Further subsidies	2 cities: Guangzhou, Qingdao

For more details, comments and collaboration, please contact maya.bd@icet.org.cn