



## Clean Transportation Program

### Brief, December 31

*New Energy Vehicles:  
Calculation Methods for Electric Vehicle Subsidies 2016-2020*

Pursuant to the national effort to accelerate adoption of New Energy Vehicles (NEV) and favorable tax and license plate exemption policies published earlier this year<sup>1</sup>, the Ministry of Finance, National Reform and Development Commission, Ministry of Information Technology and Ministry of Science and Technology published a draft of the National 2016-2020 Electric Vehicle Range Based Subsidy on December 26<sup>th</sup>, calling for comments by January 30<sup>th</sup>, 2014<sup>2</sup>. The new draft would replace the current subsidy calculation method that came into effect on October 2013. The highlights of the new draft are as follows:

- 1. The subsidy amount is calculated based on the electric vehicle's range.** The vehicles are divided into three major vehicle types: passenger vehicles, busses and utility vehicles. A different calculation method is suggested for each vehicle type:

#### 1.1 Passenger Vehicle (PV) Electric Range Based Subsidy:

Passenger Vehicle Type	EV Range (km)			
	100≤R<150	150≤R<250	R≥250	R≥50
<b>Battery Electric Vehicle BEV</b> (k RMB)	32	45	55	/
<b>Plug-In Hybrid Electric Vehicle PHEV</b> (k RMB)	/	/	/	32

China's recently published free tax list states there are currently eight passenger EV models with an electric range of less than 100km and only three models with a range higher than 250km (BYD E6, BYD DENZA, and SKIO E20).

The current calculation method provides the same subsidy for PHEVs of over 50 e-km range and PEVs of 80-150 e-km range, while the new draft suggests that PEV of 100-150 e-km range are equivalent to PHEV of 50 e-km

<sup>1</sup> <http://icet.org.cn/english/reports.asp?fid=20&mid=23>

<sup>2</sup> [http://jjs.mof.gov.cn/zhengwuxinxi/tongzhigonggao/201412/t20141230\\_1173891.html](http://jjs.mof.gov.cn/zhengwuxinxi/tongzhigonggao/201412/t20141230_1173891.html)



range and above. In short, the new draft does not increase demand for small PEVs (low-speed electric cars), but rather favors PHEV growth. Here is the current subsidy calculation method:

Passenger Vehicle Type	EV Range (km)			
	$80 \leq R < 150$	$150 \leq R < 250$	$R \geq 250$	$R \geq 50$
<b>Battery Electric Vehicle BEV</b> (k RMB)	35	50	60	/
<b>Plug-In Hybrid Electric Vehicle PHEV</b> (k RMB)	/	/	/	35

### 1.2 Bus Energy Consumption Based Subsidy:

Type	Energy Consumption ( $E_{kg}$ , Wh/km·kg)	Bus Length (meters)		
		$6 \leq L < 8$	$8 \leq L < 10$	$L \geq 10$
<b>E-Bus</b> (k RMB)	$E_{kg} < 0.3$		400	500
	$0.3 \leq E_{kg} < 0.4$	300	360	460
	$0.4 \leq E_{kg} < 0.5$		320	420
	$0.5 \leq E_{kg} < 0.6$	260	/	/
	$0.6 \leq E_{kg} < 0.7$	220	/	/
<b>PHE-Bus</b> (k RMB)		170	200	230
<b>Fast Charger E-Bus</b> (k RMB)		100	120	150

In comparison, the current subsidy is calculated in a more simplified and somewhat ambiguous way, as described in the below table. It is worth noting that the new regulation encourages the market introduction of E-buses with lower energy consumption and rewards fast charging buses. The new draft also rewards small PHE-buses aimed at cross-segment electrification, which were not been previously rewarded.

Type	Bus Length (meters)		
	$6 \leq L < 8$	$8 \leq L < 10$	$L \geq 10$
<b>E-Bus</b> (k RMB)	300	400	500
<b>PHE-Bus</b> (k RMB)	/	/	250



### 1.3 Utility Vehicles Battery Capacity Based Subsidy:

Utility vehicles (garbage, cleaning and other municipality services trucks) are eligible for a subsidy of RMB 1.8k for each Kwh, and up to RMB 130k. This is to say, a utility vehicle with a 72Kwh battery capacity could receive the highest possible subsidy. Currently, there are 5 vehicles with a battery capacity exceeding 72Kwh.

Current regulations reward each Kwh with RMB 2k, and limits the reward to RMB 150k per utility vehicle. In the coming years prior to the replacement of the existing subsidy calculation method by the new draft, municipalities are projected to speed the electrification of their utility fleets.

### 2. The subsidy is planned to be reduced over time as follows:

2016	2017	2018	2019	2020
100%	90%	90%	80%	80%

- 3. The long awaited guarantee for electric battery performance has been issued as part of the new subsidy calculation method:** vehicle manufacturers should provide guarantees of 10 years or 150,000 km range for their vehicles' battery performance. It is worth noting that most EVs available on the Chinese market have not passed the crash-test, according to expert comments<sup>3</sup>.
- 4. The draft suggests penalties would apply for vehicle manufacturers that failed to meet the performance requirement** based on which they received their subsidy, including providing false marketing or technical information. However, in the absence of a clear management system and agreement among ministries on penalty amounts, this section is merely wishful thinking.

For more details, comments and collaboration, please contacts [maya.bd@icet.org.cn](mailto:maya.bd@icet.org.cn)

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<sup>3</sup> E.g. <http://www.c-ncap.org/>, <http://www.chinanews.com/>