CHINA EV INSIGHT

THE MOST FASCINATING NEWS IN ELECTRIC VEHICLE INDUSTRY

Brought to you by: SMM Electric Vehicle| Expertise in China Electric Vehicle

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1.POLICY

Subsidy Policy Trend

The national subsidy policy is still yet to release. Shengji Ye, deputy secretary-general of China Association of Automobile Manufacturers, predicted that subsidy policy is about to be landed by end of this year.

Based on primary research and educated estimation, SMM predicts that subsidy policy for NEV as below: subsidies for passenger vehicle may still be allocated by mileage of EV but will decrease overall; Policy for bus may run into a major turn — subsidies for battery electric bus may be allocated by battery energy density while subsidy for plug-in hybrid electric bus may be allocated by fuel saving ratio; Subsidies for logistics vehicle, however, may be postponed to release with supplementary policy, since its technical standards are up in the air for now.

Energy Density	Subsidy
80Wh/kg-110Wh/kg	1440RMB/Wh
110Wh/kg-120Wh/kg	1800RMB/Wh
120+Wh/kg	2160RMB/Wh

Subsidies for battery electric bus may decrease by about 30%-50%;

Fuel Saving Ratio	Subsidy
40%-50%	2400RMB/Wh
50%-60%	3000RMB/Wh
60%+	3600RMB/Wh

SMM COMMENTS:

Till now, there is no certain word about what's coming for Chinese EV manufacturers. But there surely are some lighthouses on the road — Policy environment will be friendly to passenger vehicles where rapid growth can be assured; Restriction of ternary materials application on buses is to be relaxed; Logistics vehicle industry may disappoint investors and manufacturers in short term, but explosive growth can be expected in near future.

2.MARKET

Battery Recycling in China suffers " Bitter Winter"

Future volume of waste power battery is predictably huge, according to research institutions in China, by which we are talking about 32.2Gwh (about 0.5million ton) and 10 billion market size by 2020.

However, low-profit and incomplete policy system have curbed the explosion of this market. According to some recycling enterprises, they are struggling to break even, especially for LFP battery recycling. A series of regulations and incentive policies have been released this year, appointing battery manufacturers as the main responsible party. But as the policy is non-binding for now, no strict rules for reward and punishment erected, policy implementation is not positive for now.

GEM, Brunp Recycling and Chilwee are three professional battery recycling companies in China. GEM, as the pioneer in recycling technology, owns over 40 patents in battery recycling field.

SMM COMMENTS:

Battery recycling market in China is emerging. Limited by high recycling cost, policy is still the key driving force.

3.BUSINESS STRATEGY

Will Tesla 21700 Battery Cause "Big Size Battery" Trend in China?

Tesla revealed its new 21700 cylindrical battery, which aroused heated discussion in China EV industry. Compared with 18650 battery, 21700 battery has a bigger size, which is said to have the highest energy density with lowest cost.

Given that big size battery's advantage is widely acknowledged, 18650 is expected to keep the winner position in China for quite a time. On one hand, industrial ecosystem is not yet ready for 21700, where there are no consistent standards for EV, battery and pack, and mass-production and scale economy are hard to be met, while 18650 has formed a complete industry chain with its consistent size. On the other hand, 18650 and 32650 battery types are popularized in government's document, battery manufacturers would rather not take risk before 21700 is formally listed in the catalogue.

Few players manufactures various types of cylindrical battery except for OptimumNano, Wisewod, PLB and Youlion etc.

SMM COMMENTS:

There is no doubt that Tesla's "big size battery" will bring a positive impact on the technical development in China EV industry, but it may not be a quick transition. Downstream demand and policy support need to be in place before mass production.