# **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**

#### 8GWh New Policy Will Possibly Trigger Fast-Paced Industrial Consolidation.

Last week, Automobile Power Battery Industry Standard Conditions (2017,Draft for comment) was released and aroused heated discussion and even panic in the market, suddenly raising the annual production capacity requirement for single battery maker to 8GWh, nearly 40 times the past standard. In additional, two more specific quantitative requirements were mentioned: no serious security incidents about production and operation in recent 2 years; R&D personnel shall not be less than 10% of the total number of employees or the total number of which shall not be less than 100 people.

Tougher standards of high capacity, technology and security will certainly eliminate some unqualified enterprises, maybe 90% out of 150 battery manufacturers, of which BYD, CATL can meet the 8 GWh requirement in 2016 while Guoxuan High-Tech, OptimumNano are expected to be qualified in 2017.

#### New Regulation for Bus Technology was Revealed; Ternary Battery will be allowed in Electric Bus.

Recently, MIIT issued Safety Technical Standards for Electric Bus, assuring that qualified ternary battery can be applied in electric bus again, which have caused huge panic among overall lithium industry. Industry watchers began to worry about the future of LFP battery, for which it's hard to meet the high energy density standards for bus subsidy. What's worse, ternary battery's release may fiercely accelerate the market share decrease of LFP battery.

Below are energy density of LFP battery in major bus manufacturers. Except for them, most bus players only have 80-95Wh/kg and get lowest subsidy that cannot cover their bat-

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	Company Name	Battery Energy Den- sity (Wh/kg)	PACK Energy Densi- ty (Wh/kg)
	BYD	160	>115
	CATL	150	>115
	Guoxun High-Tech	130	95-115
	China Aviation lithi- um Battery	130	95-115

#### SHM MOGOMMENTS:

China government aimed at establishing the industrial technical regulation. High energy density and tough bus subsidy requirements will cause ternary's growth and LFP's decline. 8GWh production capacity, if the policy was landed officially, will surely trigger fast-paced industrial consolidation.



# 2.MARKET

#### LFP's Bitter Winter is around the corner?

LFP battery has a leading position in electric commercial vehicles field, nearly 100% market share in 2016 since ternary battery is forbidden to apply in electric bus. But now, ternary's release and high energy density qualification will cause huge pressure on LFP.

Ternary battery will see its release in bus from 2017, due to some certification process, it will be at lease half-year buffer period for LFP.

In the future, LFP is likely to be partly applied in energy storage system owing to its disadvantage in power battery.

## SMM COMMENTS:

Ternary battery was chosen by both China government and industry market. Upstream cathode suppliers and downstream EV manufacturers will follow the trend, and relevant segments will see panic in short term but explosive growth in long term.

## **3.BUSINESS STRATEGY**

# Cathode Material, Battery and EV Enterprises start new layout to survive.

Bus manufacturers will restructure their battery supply chain to qualified for high-amount subsidy.

Battery players especially LFP manufacturers will suffer a serious bitter winter. According to SMM, some manufacturers have restarted the R&D on ternary battery for bus, transition from LFP to ternary or construction for new production line will cost about 8-10 months. So it's safe to come to the conclusion that at least half year from now, some enterprises will enter into extremely hard period.

According to some cathode manufacturers, their downstream clients have shown production transition trend to ternary.

### SMM COMMENTS:

The stronger tends to be stronger: big players are searching for M&A opportunity to strength their comprehensive competitiveness to meet regulation and subsidy requirements; mid and small player will struggle to survive, so they will clearly need technology and capital support.