

Weekly Briefing

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China's New Energy Vehicles

- China's government leaders have outlined an ambitious plan to increase the sales and production of new energy vehicles.
- As in other countries, without substantial subsidies or carbon taxes, aggressive targets will be difficult to achieve.

China's long-term strategy for the automotive industry is to expand the production and sale of new energy vehicles (NEVs), or plug-in hybrid electric (PHEV) and battery electric vehicles (BEV). The long-run goal is to be positioned as a leader in connected and autonomous vehicles (AVs), both in the technological development as well as in smart city transportation.

By 2025, the government planners are charting a path to:

- Establish global leadership position in important auto-related technologies, especially battery and electric motor, power transmission, and electronics to support AVs.
- Achieve best-in-class quality across vehicle platforms of all sizes.
- Expand "smart" R&D and what they call a "new industrial ecology."
- Lower CO₂ emitting vehicles as a gateway to fully autonomous machines servicing gate-fenced cities.

With these goals in mind, it is helpful to look at the data on vehicle production, sales, and the NEV segment (see table). NEV sales reached 507,000 units last year, while total sales were 28 million units (all vehicles, retail and commercial). Earlier this year, Ministry of Industry and Information Technology (MIIT) officials announced a total vehicle sales target of 35 million units, with NEVs making up 7 million units or one-fifth of the total target. At a 1.7% market share last year, there is a long way to go to achieve an NEV market share of 20% by 2025.

Technology and innovation leadership is an aspiration among the central planners. Last weekend, the vice minister of MIIT stated that China will set a target deadline for the termination of all production and sale of gasoline and diesel powered cars and trucks. One advantage China has in achieving the NEV sales target is the minicar market (segments A and B) as well as commercial buses where they are achieving scale volumes of NEVs.

Even so, challenges to achieve this target are numerous. Many larger NEVs are more costly to produce and pricing is higher, thereby making the market equation difficult for buyers. Product development of NEVs is more complex and requires ongoing innovation and breakthroughs, particularly in battery storage. And, as Tesla has done, in order to set sights on connected and autonomous features, this technology likely needs to be embedded into existing vehicle platforms to ensure a cost-effective transition in the future which can exploit these features.

China Motor Vehicle Summary

	Vehicles in Operation Mils Units	Production Mils Units	Total MV Sales Mils Units	NEV Sales 000s Units
2005	32	5.7		--
2010	78	18.3	18	--
2011	94	18.4	18	8
2012	109	19.3	19	13
2013	127	22.1	22	18
2014	146	23.7	23	75
2015	163	24.5	24	331
2016	192	28.1	28	507
YTD				
2017 Est.	220	NA	28	800*
Targets				
2020	NA	30		2,000
2025	NA	35		7,000

Source: China Association of Automobile Manufacturers (CAAM), MIIT, and UMEL.

* CAAM Target for Full Year 2017; the annualized rate of NEV sales in August was 816,000 units; CAAM data tracks sales to dealers, not end consumers.

Key Takeaways

- **China putting power of the government behind the development of NEVs.**
- **But this will require a large budget, with significant investment in the auto and energy sectors, along with a viable and complex supply chain.**
- **There is the risk of capital misallocation as market signals are missing, resulting in scant price discovery.**
- **Getting to 7 million NEVs by 2025 will require a global product development strategy and support of domestic vehicle companies.**