China’s Electric Vehicles Growth Promotes the Sustainable Development

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EVs are critical for energy structure optimization, air pollution control and CO₂ reduction in China.

Petroleum consumption structure in China

- Other
- Construction
- Agriculture
- Residential
- Industry
- Chemical
- Rail
- Aviation
- Waterway
- Road

Source: Sinopec Economics & Development Research Institute, THU, CATS
BEV/passenger car dominates the China’s EV market

**NEV components 2018**

- **Commercial BEV**: 63%
- **Passenger BEV**: 16%
- **Passenger PHEV**: 21%
- **Commercial PHEV**: 0%

**BEV sales**  
- 2011: 0.0%
- 2012: 0.3%
- 2013: 0.1%
- 2014: 0.1%
- 2015: 1.3%
- 2016: 1.8%
- 2017: 2.7%
- 2018: 2.7%

**PHEV sales**

**NEV/Vehicle**

- 2011: 0.00%
- 2012: 0.50%
- 2013: 1.00%
- 2014: 1.50%
- 2015: 2.00%
- 2016: 2.50%
- 2017: 3.00%
- 2018: 3.50%
- 2019: 4.00%
- 2020: 4.50%
- 2021: 5.00%
China’s vehicle market fluctuates since 2018 while EV keeps growing

Source: China Association of Automobile Manufacturers
Charging poles grow rapidly and EV/pole close to 3:1

Source: China Electric Vehicle Charging Infrastructure Promotion Alliance
Experience 1: Systematic policies build the ground for the fast development of EVs in China

- To deploy NEVs in public fleets (bus, sanitary, post, taxi, commute, delivery)
- To deploy 100% NEV buses in main cities in key regions.
- Traffic restriction exemptions
- Green-colored special license plates for EVs
- Mandate NEV sales requirements for 2019 (10% of ICEV product or import) and 2020 (12% of ICEV production or import)
- Allowing NEV credits to be sold
- Purchasing subsidy (phasing out)
- Exemption of the vehicle purchase tax

**Fiscal incentives**

**China ZEV mandate**

**Non-fiscal incentives**

**Blue-Sky Protection Action Plan**

**2019 purchasing subsidies**

BEV: National subsidy is 50% off; local subsidy is cancelled

PHEV: National subsidy is reduced to be 10k RMB; local subsidy is cancelled

Change to subsidize the charging infrastructure construction

Change to subsidize the charging infrastructure construction
Experience 2: Timely setting leading targets by 2025 build the market confidence

**The Medium and Long Term Development Plan of Automotive Industry by MIIT**

- 2 million annual sales by 2020
- 20% of annual sales is NEVs by 2025
- Specific energy density of power battery achieves 260 Wh/kg, cost decreases to 1 RMB/Wh by 2020 and 350 Wh/kg by 2025

**The Guidelines for Electric Vehicle Charging Infrastructure Development by NDRC, NEA, etc.**

- 12,000 centralized public charging stations, 0.5 million public charging poles and 4.3 million restricted charging poles by 2020
Experience 3: National and local efforts supplement and inspire each other

- **Beijing**
  - NEVs 172,000 (2017)
  - 60% new license plates for EVs

- **Shanghai**
  - NEV 165,000 (2017)
  - Highest EV/charging pile (1.27:1)
  - PHEV account for 63.8%

- **Guangzhou**
  - All the bus fleet as EVs
  - Announce to ban the sales of ICEV

- **Hainan**
  - All the taxi fleet as EVs

- **Shenzhen**
  - Set up a target of 100% EV taxies by 2022

- **Taiyuan**
  - All the taxi fleet as EVs

- **Shenyang**
  - All taxies as EVs By the end of 2018
Accelerate the EV deployment to support the sustainable future of China

Accelerate towards zero carbon emissions
Support China early carbon peaking

50% of cities meet target of 25μg/m³
All cities achieve current air quality standards

Accelerate the EV deployment and vehicle electrification transition in China
When will the cost of BEV be equal to ICEV?

Source: CATARC, Research on the Development Trend 2050 of Conventional Vehicle and NEVs in China, 2018
How to accelerate the EV deployment in China?

Source: CATARC, Research on the Development Trend 2050 of Conventional Vehicle and NEVs in China, 2018
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To achieve prosperity and a safe climate through sustainable energy.

**OUR MISSION**
To achieve greenhouse gas emissions neutrality, world-class air quality, energy access, and green growth through transforming energy and optimizing economic structure.

**OUR FOCUS on TRANSPORT**
Zero emissions mobility transformation
Clean and efficient ICEs
Clean and efficient transportation structure
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