

Leading new energy vehicle city markets in China: A 2021 update

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This briefing is an update to our report that assessed China's top-performing city markets for new energy vehicles (NEVs) as of 2020.¹ Here we present market data for 2021 and compare it with 2020. NEVs, in the Chinese context, refer to battery-electric vehicles (BEVs), plug-in hybrid electric vehicles (PHEVs), and hydrogen fuel cell electric vehicles (FCEVs). Similar to our previous report, we identify the top NEV city markets for passenger cars and commercial vehicles both within their respective categories and by city class and vehicle sub-categories.² In China, cities are informally classified into six tiers based on socio-economic and development characteristics.³ All of the market data used for this analysis is insurance data of vehicles produced domestically in China.

2021 SALES OVERVIEW

While the COVID-19 pandemic continued to impact the automotive market in China in 2021, NEV sales more than doubled from 2020 to 2021, when they reached 3.5 million.⁴ That was more than all new BEV and PHEV passenger vehicles sold globally in 2020.⁵ As shown in Figure 1, the 30 cities with the most NEV deployment in 2021 were 62% of the national total; that is 7% lower than the share of the top 30 cities in 2020. This implies that NEV markets developed more evenly among big and smaller cities and that emerging city markets are playing an increasingly important

- 1 Yidan Chu et al., "Assessment of Leading New Energy Vehicle City Markets in China and Policy Lessons," (ICCT: Washington, DC, 2022), <https://theicct.org/publication/china-city-markets-new-energy-sep22/>.
- 2 In China, passenger cars are motor vehicles with four wheels that carry people and have no more than nine seats and a maximum designed gross vehicle weight \leq 3,500 kg; commercial vehicles are those exclude passenger cars, and the category includes trucks, buses, and utility vehicles.
- 3 There are six city classes in China, namely, Tier 1, New Tier 1, Tier 2, Tier 3, Tier 4, and Tier 5. Tier 1 is the highest rating and generally, higher-rated cities have larger population, stronger economic strength, and better business competitiveness. See more details here: <https://www.yicai.com/news/101430366.html>.
- 4 Ministry of Industry and Information Technology of the People's Republic of China, "Economic Operation of Automobile Industry of China in December, 2021," January 13, 2022, https://www.miit.gov.cn/jgsj/zbys/gzdt/art/2022/art_1560211916c94bd9a0193b92c9acde7f.html.
- 5 Marie Rajon Bernard, Dale Hall, Hongyang Cui, and Jin Li, "Electric Vehicle Capitals: Accelerating Electric Mobility in a Year of Disruption," (ICCT: Washington, DC, 2021), <https://theicct.org/publication/electric-vehicle-capitals-accelerating-electric-mobility-in-a-year-of-disruption/>.

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role. Indeed, the contribution of megacities to the national NEV market continued to contract from 2020 to 2021: Shanghai's sales share dropped from 10% to 8%, Shenzhen's from 7% to 5%, Beijing's from 8% to 4%, and Guangzhou's from 5% to 4%. The top 10 NEV cities in 2021 were almost the same as in 2020, except for Suzhou, which took the 10th place from Liuzhou.

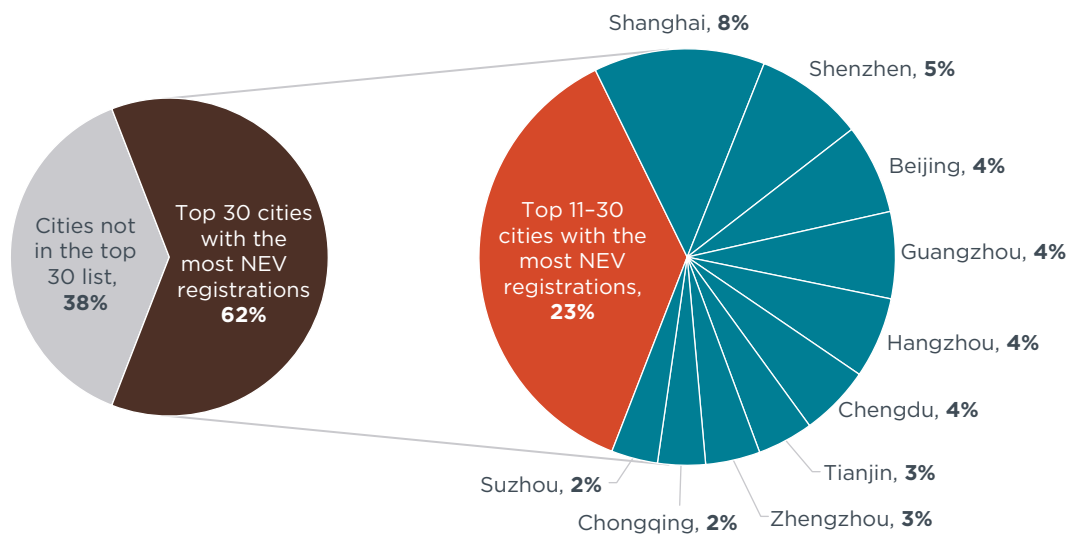


Figure 1. New energy vehicle registrations (passenger cars and commercial vehicles are included) in Chinese cities, 2021.

NEW ENERGY PASSENGER CAR MARKET

MARKET CHARACTERISTICS BY CITY CLASS

Nearly 95% of the NEVs sold in 2021 were new energy passenger cars (NEPCs).⁶ Figure 2 shows the NEPC market share by city class in 2020 and 2021. Notably, Tier 1 cities lost their dominance in terms of market share to New Tier 1 cities in 2021. Meanwhile, Tier 2 through Tier 4 cities had a combined market share of 46% in 2021, 8% higher than in 2020.

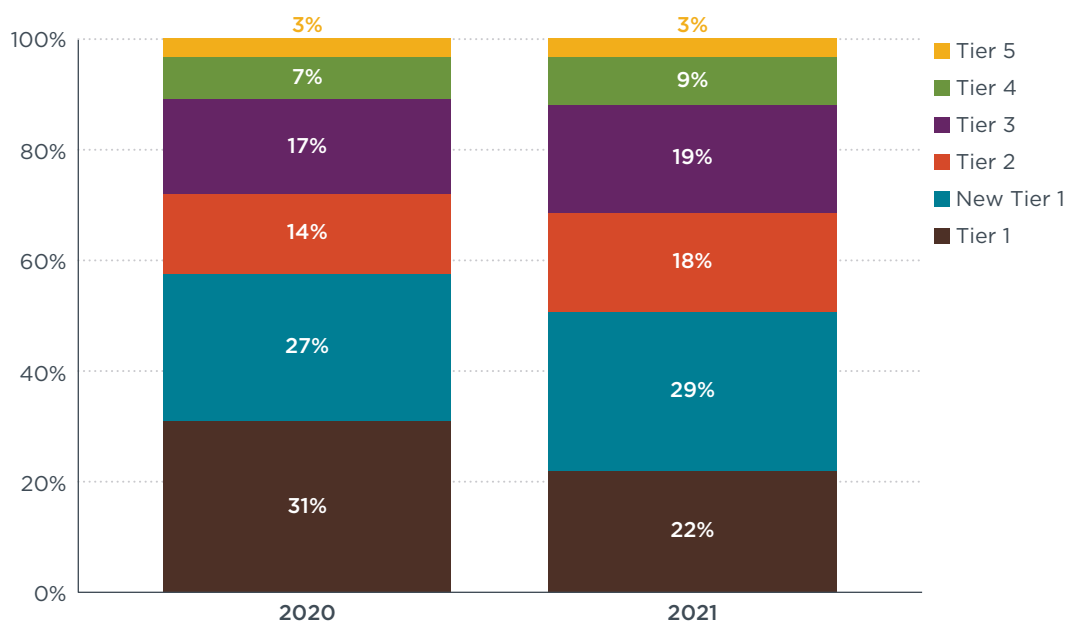


Figure 2. Share of new energy passenger car registrations in China by city tier, 2020 and 2021.

⁶ China Association of Automobile Manufacturers, "Economic Performance of Automobile Industry of China in 2021," January 12, 2022, http://www.caam.org.cn/chn/4/cate_154/con_52353337.html.

Figures 3 and 4 show market composition by vehicle ownership type and by segment for each city class. The national market share of private cars was 78% in 2021, a 7% increase from 2020. Also in 2021, Tier 4 cities replaced Tier 1 cities as the largest private NEPC subnational market, with a share 9% higher than the national average; they were closely followed by Tier 3 and Tier 5 cities. From the perspective of vehicle size, in 2021, consumer preference for small-size cars (A00, A0, and A segments) remained almost the same as in 2020. However, sport utility vehicles (SUVs) were much more popular than in 2020, and the share of mid-size cars (B and C) declined in 2021. SUVs were especially popular in Tier 1 cities, where their market share increased by 42% from 2020 to 2021, and they represented nearly 30% of the national total in 2021.

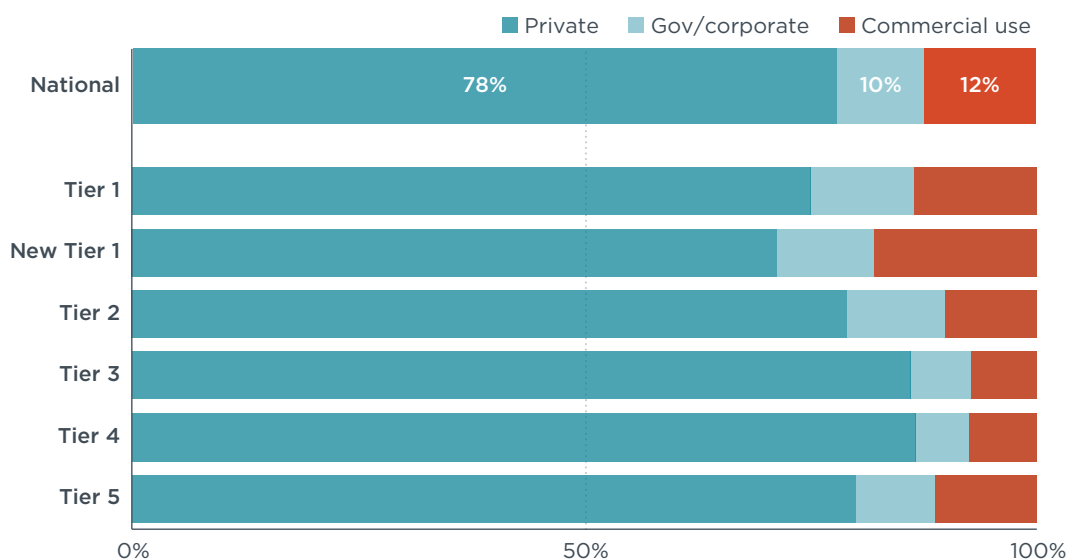


Figure 3. Composition of the new energy passenger car market by ownership type across the city classes, 2021.

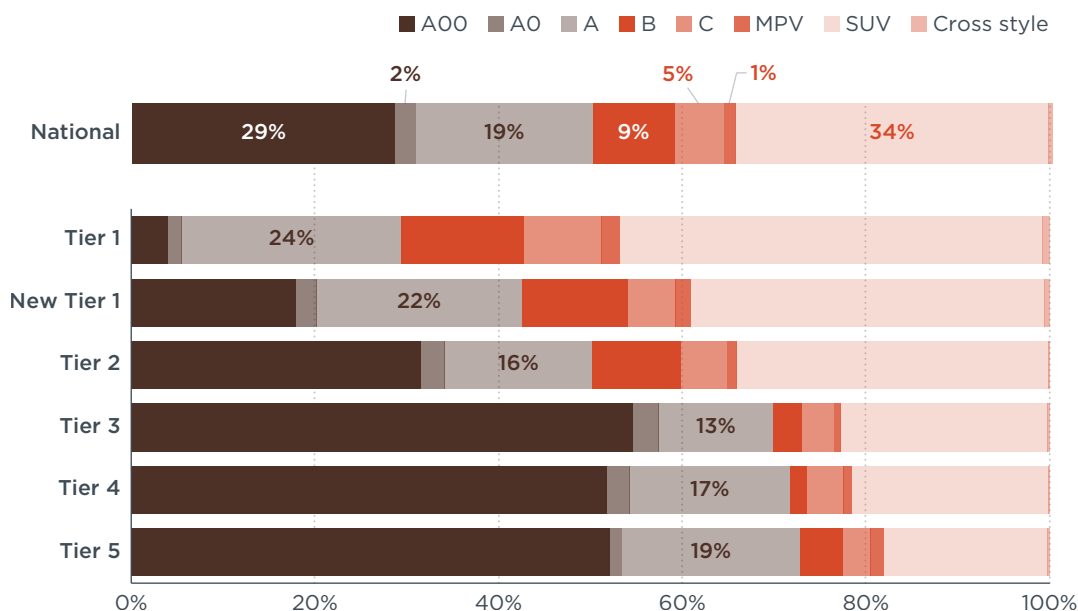


Figure 4. Composition of the new energy passenger car market by segment across the city classes, 2021.

Figure 5 shows vehicle technical features. In 2021, the national averages for electric range and battery capacity of BEVs were 389 km and 47 kWh, respectively, both minor changes from the 379 km and 46 kWh averages in 2020. Similar to what we found in the report based on 2020 data, consumers in Tier 3, 4, and 5 cities preferred small-size cars (A00, A0, and A) with lower electric range and battery capacity; this is largely because they typically have less income and shorter commutes. In contrast, consumers in Tier 1 through Tier 2 cities preferred larger, higher-end cars with better performance.

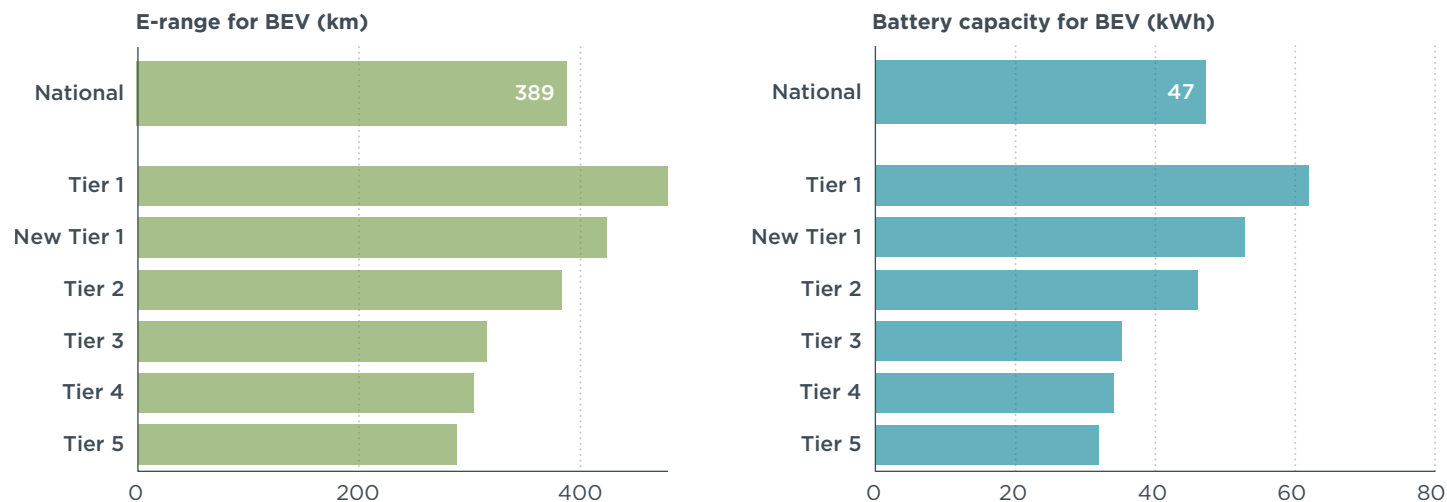


Figure 5. Average electric range and battery capacity of new energy passenger cars (BEVs only) across the city classes, 2021.

CHARACTERISTICS OF THE TOP 30 NEPC MARKETS

The top 30 NEPC city markets in terms of registrations in 2021 collectively contributed 62% of the national total for 2021 (Figure 6). NEPC registrations ranged from over 240,000 in Shanghai on the high end to nearly 23,600 in Shijiazhuang on the low end, and market shares ranged from 37% in Shenzhen to 10% in Dongguan. Ten cities had market shares over 20%. This top city list remained almost the same as it had been in 2020, and Shanghai, Shenzhen, Beijing, and Guangzhou were still the top four in the nation. Only three cities, Heze, Jining, and Xiamen dropped off the list in 2021, and they were replaced by Jinhua, Taizhou (Zhejiang province), and Wuxi.

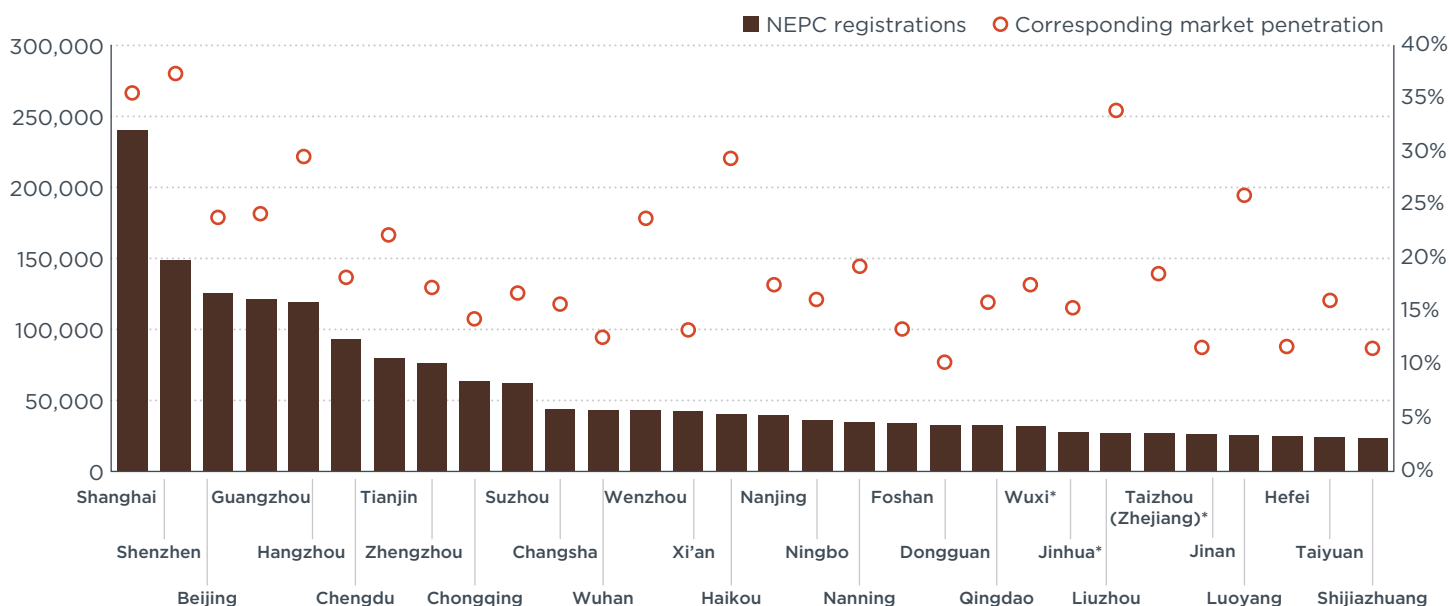


Figure 6. New energy passenger car registrations and their market share in the top 30 cities in China, 2021.

*Denotes cities that were new members of the top 30 list in 2021.

Figure 7 displays the spatial distribution of the top 30 NEPC markets across China and includes each market's sales shares by NEV technology. The leading NEPC city markets in 2021 were concentrated in Central, Eastern, and Southern China, the same as in 2020. In addition, BEVs remained the dominant vehicle technology in all the leading markets, and in all their shares exceeded 60%; the lowest BEV shares of NEPCs in 2021 were in Xi'an and Shanghai.

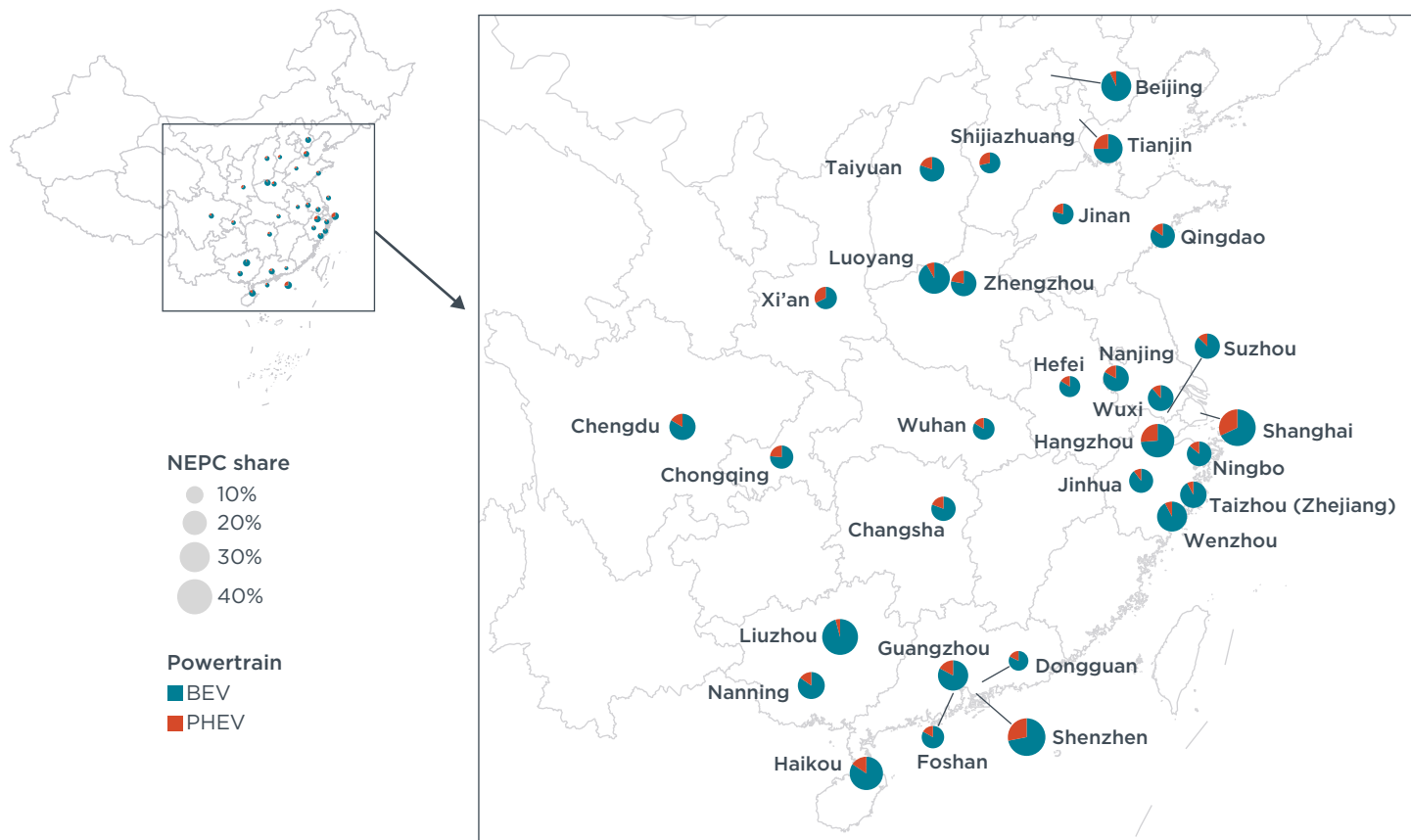


Figure 7. Geographical distribution of the 30 leading cities and their new energy passenger car technology choices, 2021.

Figures 8 and 9 replicate the analysis in Figures 3 and 4 for the top 30 NEPC markets. On average, 74% of the NEPCs registered in the top 30 cities in 2021 were for private use; 11% were for government or corporate fleets; and 15% were for commercial use, namely taxis and cars used for rental or ride-hailing purposes. This was not too different from 2020, when the average market shares of the same sectors were 71%, 12%, and 17%, respectively. Among the leading markets in 2021, the most thriving private car market was Liuzhou and in terms of commercial-use cars, Chengdu led.

As shown in Figure 9, the most popular NEPC vehicle segment was the SUV, which captured an average of 40% of the top 30 markets in 2021. Second most popular was Segment A (22%) and then A00 (17%). While SUVs became more popular from 2020 to 2021, the market share of mid-size cars (Segment B and C) shrank from 26% to 17%. Additionally, although the average market share of mini cars (segment A00) remained the same in 2021, significant variances in their popularity were seen across cities, and the share ranged from 2% in Shanghai to 83% in Liuzhou. Notably, 19 of the top 30 cities for NEPCs were either Tier 1 or New Tier 1 cities. These two city tiers are China's largest and most wealthy cities and this is where high-end SUV models that offer spacious interiors and multifunctional software and hardware, such as the Tesla Model Y and the Li ONE, were widely affordable and popular choices.

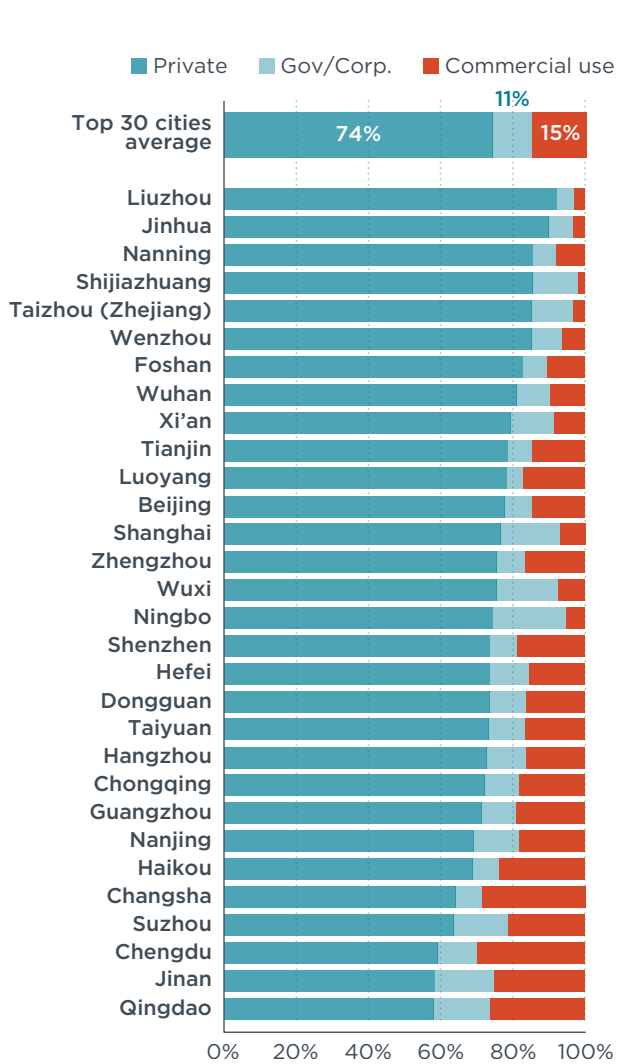


Figure 8. Composition of the new energy passenger car market by ownership type in the top 30 city markets, 2021.

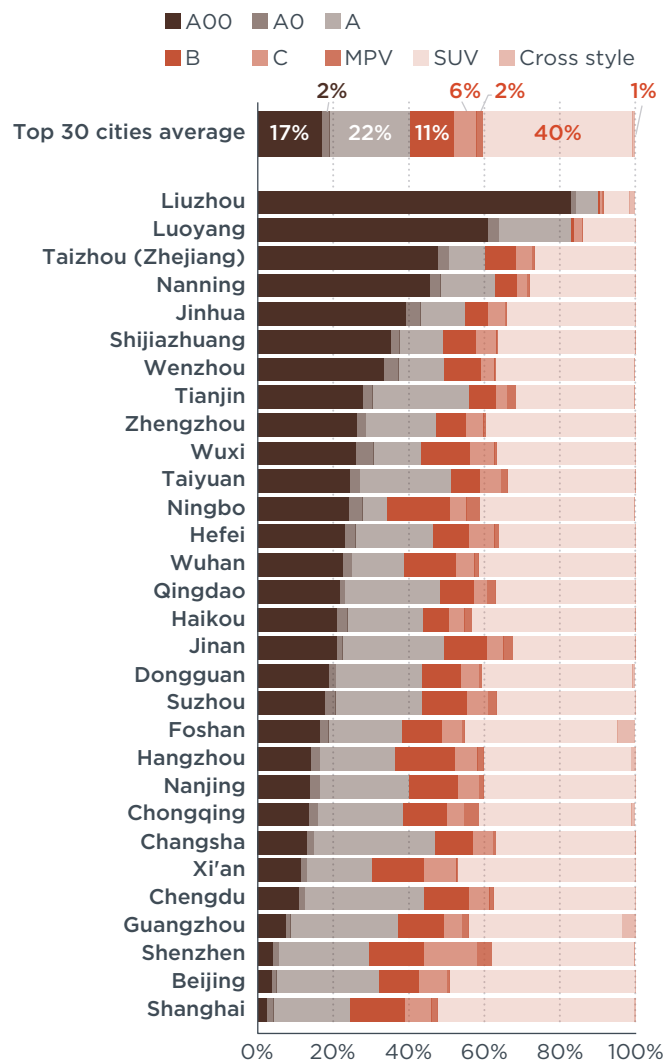


Figure 9. Composition of the new energy passenger car market by segment in the top 30 city markets, 2021.

The averages for electric range and battery capacity of passenger BEVs in the top 30 city markets were 432 km and 54 kWh in 2021 (Figure 10), an increase from 407 km and 50 kWh in 2020. Two policies underlying the increases are China's national NEV purchase subsidy, which is tied to both electric range and battery capacity, and the NEV credits policy, the calculation for which is a function of electric range. Although there were differences between cities, these narrowed from 2020 to 2021. In 2021, the average electric range varied from 291 km in Liuzhou on the low end to 487 km in Shanghai on the high end, and it had ranged from 244 km in Heze to 458 km in Shenzhen in 2020. Moreover, the BEVs sold in 29 cities had an average electric range of at least 300 km, the benchmark for a vehicle to qualify for the national purchase subsidy, and that was three more cities than in 2020. The average battery capacity in 2021 ranged from 29 kWh in Liuzhou on the low end to 63 kWh in Shanghai on the high end, and 27 cities had an average of at least 40 kWh, three more than in 2020.

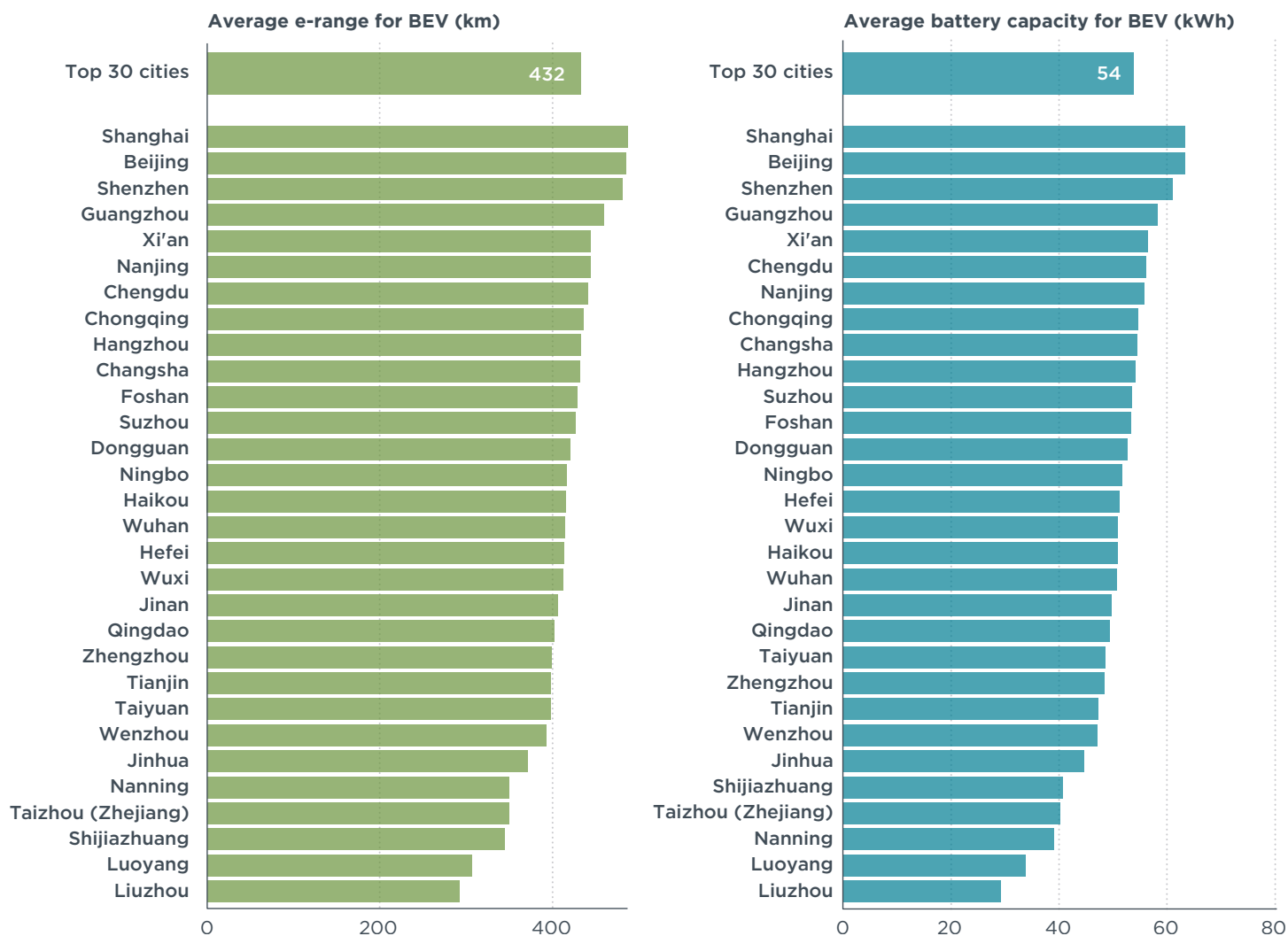


Figure 10. Average electric range and battery capacity of new energy passenger cars (BEVs only) in the top 30 city markets, 2021.

LEADING NEPC MARKETS IN EACH CITY CLASS

Leading markets were selected based on their NEPC market shares instead of absolute number of new registrations, to normalize the difference between big and small vehicle markets. Figure 11 lists each city class's top five NEPC markets, their corresponding performance, socio-economic status, technical performance of BEVs, and the best-selling BEV models.⁷

In 2021, the lists of the top NEPC markets for Tier 1 and Tier 3 cities remained the same as in 2020, with a slightly different ranking. However, the scale of the NEPC markets increased dramatically in nearly all city tiers. Tier 1 cities sold an average of 159,100 new NEPCs in 2021, varying from Guangzhou (121,500) on the low end to Shanghai (240,400) on the high end. In contrast, in 2020, only one city reached 100,000 sales, and Tier 1 cities' average was 86,700. Leaders in Tier 3 were on par with Tier 1 cities in terms of market penetration, despite their smaller scale (an average of 22,100 sales in 2021) and their average NEPC market share was 30.2%, as high as that of Tier 1.

⁷ Tier 1 cities are an exception, as there are only four Tier 1 cities in China.

In 2021, nine new cities joined this top-runner list: Chengdu and Nanjing in New Tier 1, Wuxi in Tier 2, Puyang,⁸ Beihai, and Luohe in Tier 4, and Huangnan, Danzhou, and Fangchenggang in Tier 5. A number of leading cities in Tier 4 and Tier 5 were from Guangxi, a provincial administrative region, and they are Beihai, Laibin, Chongzuo, and Fangchenggang; this is a result of the success of the “Guangxi Mode” of NEV development, a path that replicates practices of the most successful NEV city market in the region, Liuzhou, in city clusters around it, and this was discussed as a case study in our recent report.⁹ In addition, multiple cities across different city tiers in Henan province were among the top city markets: Puyang, Jiaozuo, Luohe, Zhengzhou, and Luoyang.

Interestingly, in 2021, the BYD Han—a high-end car model in segment C—was the most popular model in the BEV NEPC market in Shenzhen, where BYD is headquartered. Similarly, Shanghai, Guangzhou, and Beijing all have relationships with the makers of the most popular BEVs: Tesla has a megafactory in Shanghai; GAC Group, the enterprise that produces Trumpchi AION.S, a compact car model falls into segment A, is headquartered in Guangzhou; and BAIC Group, the enterprise that produces the Beijing EU series, another compact car model, is headquartered in Beijing. Elsewhere it was the Hongguang mini, a mini car model that costs about CNY 30,000 - CNY 40,000 (subsidies not considered) and offers a 120 - 170 km electric range, that was dominant and it was the best seller in 17 cities. Hongguang mini models are produced by SGMW, a manufacturer headquartered in Liuzhou; this is part of the Guangxi Mode mentioned above.

⁸ City classification is done by Yicai, a finance news outlet in China. Although the city classification was slightly different in 2021 than it was in 2020, the changes mostly did not involve the cities in our top-cities ranking; the exception was Puyang, which was classified as a Tier 5 city in 2020, but then a Tier 4 city in 2021.

⁹ Chu et al., “Assessment of Leading New Energy Vehicle City Markets.”

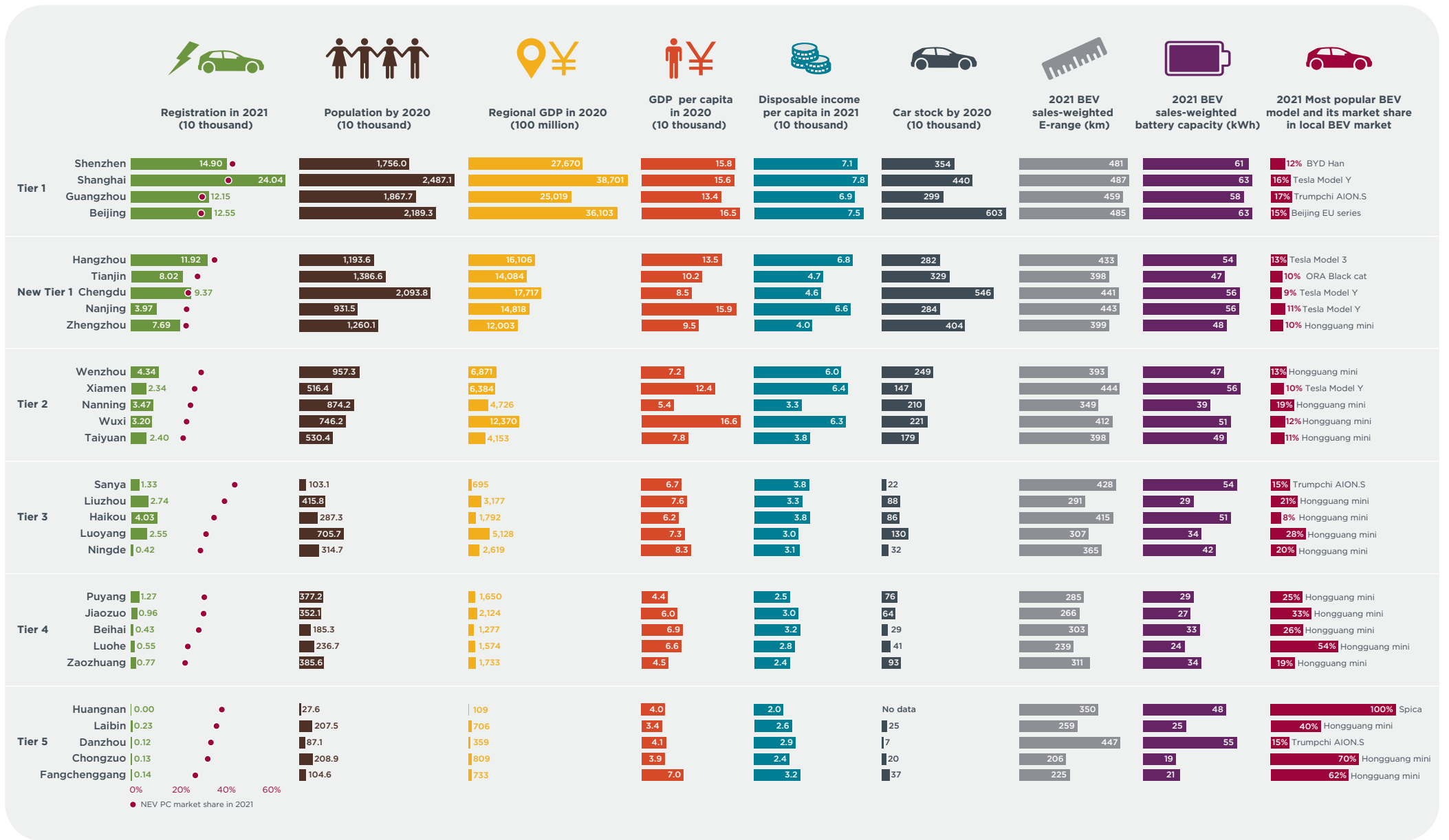


Figure 11. Top five cities in each city class with the highest new energy passenger car market penetration in 2021 and their select new energy vehicle market and socio-economic characteristics.

NEW ENERGY COMMERCIAL VEHICLE MARKET

OVERALL MARKET TRENDS

The year 2021 marked a reversal of the contraction in the NECV market that had been continuous since 2018. Indeed, the NECV market grew tremendously in 2021, by 70%, and that was in stark contrast with the 6.6% decrease in total commercial vehicle sales nationwide in 2021.¹⁰ Nearly 200,000 new NECVs were registered in 2021 and that was 4.6% of the total commercial vehicle market.

Figure 12 depicts the market trends of NECVs in the past decade by leading cities and then Figure 13 illustrates the national market by major vehicle categories. Since 2017, most NECV sales were in the top 20 cities (labeled in color in Figure 12). Compared with the previous years, the collective market share of these top 20 cities declined to just above half of the market in 2021, implying that smaller cities have gained market traction recently. Regarding vehicle type, mid- and heavy-duty passenger NECVs (mainly city buses and coaches) and new energy urban logistics vehicles have dominated the market in the past (Figure 13). However, straight trucks, tractor trucks, dump trucks, and other utility vehicles (e.g., sanitation vehicles, postal vehicles, and engineering trucks) had pronounced market growth in 2021 despite their smaller market presence in terms of absolute sales. Indeed, the market size of new energy straight trucks more than tripled, and the markets for new energy tractor trucks and dump trucks were approximately eight times and four times larger, respectively, in 2021 than they had been in 2020.

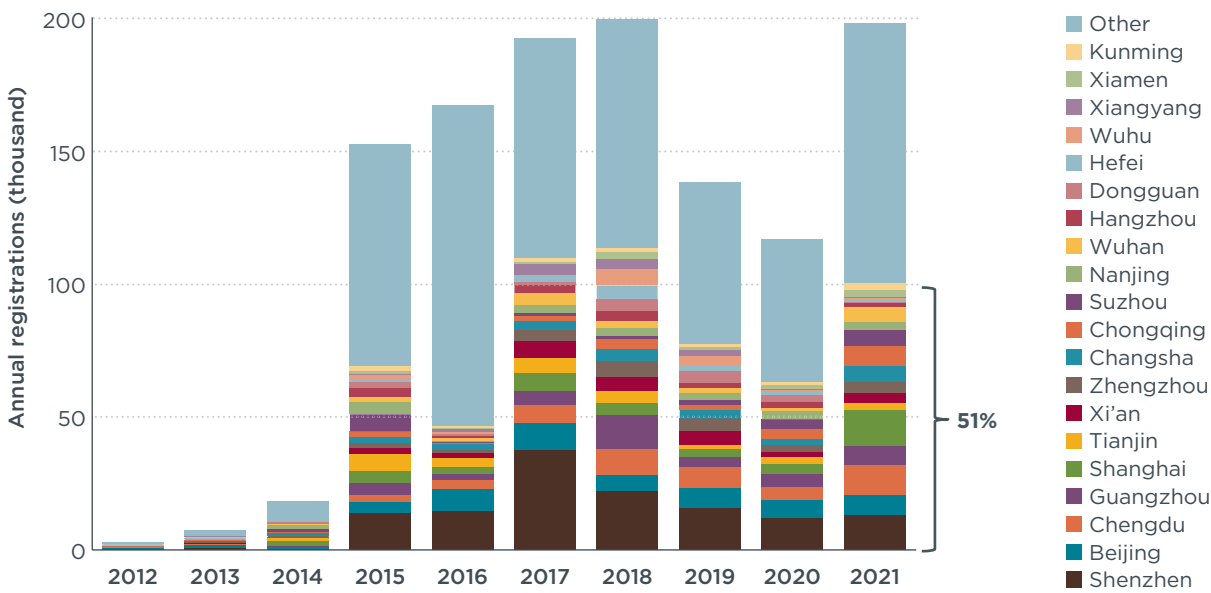


Figure 12. Registrations of new energy commercial vehicles in the top 20 cities, 2012-2021.

¹⁰ China Association of Automobile Manufacturers, "Economic Performance of Automobile industry of China in 2021."

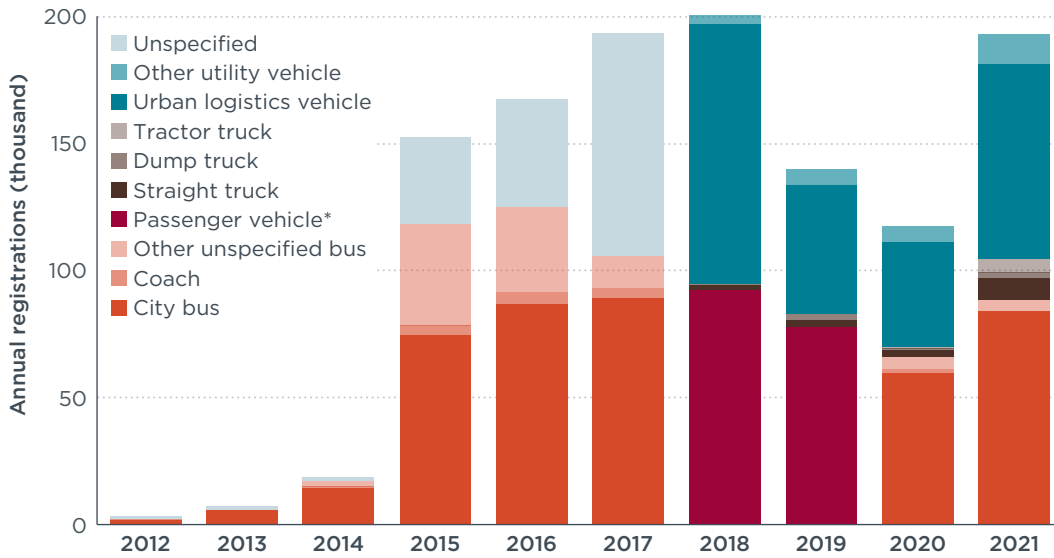


Figure 13. Registrations of new energy commercial vehicles in China by broad category, 012-2021.

*Passenger vehicle includes city bus, coach, and other unspecified buses; available data did not allow us to differentiate between city bus and coach in 2018 and 2019.

Figure 14 plots the spatial distribution of new NECVs registered in 2021 by vehicle category. We see that passenger NECVs were primarily deployed in Eastern, Central, and Southern China and in Sichuan province; while Zhejiang province was the leader with the most sales, five provinces deployed over 6,000 new vehicles. Guangdong province continued to be the national leader in the new energy urban logistics vehicle market, led by Shenzhen and Guangzhou, and was followed by Jiangsu province, Shanghai, and many provinces in Central China. For the heavier truck categories, which are on the right in Figure 14, we see that areas in and around the Jing-Jin-Ji region (Hebei, Henan, Shanxi, and Shandong provinces, Beijing, and Tianjin) deployed the largest number of new energy dump trucks and tractor trucks. Notably, Hebei province held a wide lead over the other subnational markets by deploying over 50% of the national total of these two types of new energy trucks.

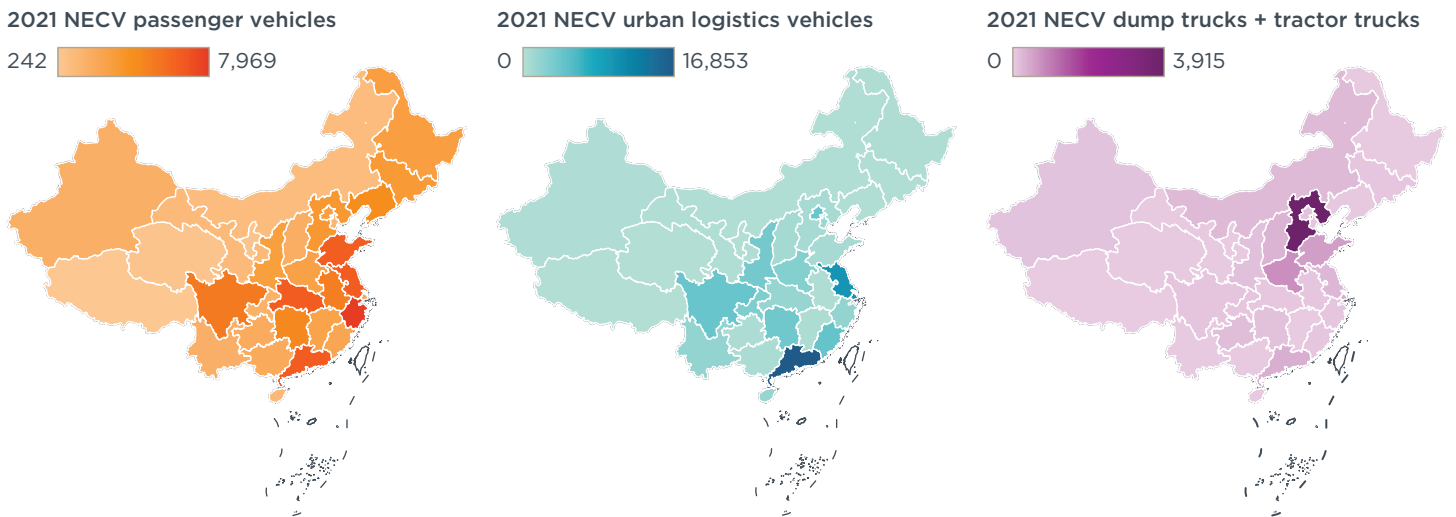


Figure 14. Spatial distribution of registrations of new energy commercial vehicles that carry passengers, urban logistics vehicles, and tractor and dump trucks, 2021. *Note:* Data is only available for the areas shown in color.

LEADING CITY MARKETS BY NECV CATEGORY

We identified and analyzed the leaders in terms of overall annual deployment for five NECV categories: urban logistics vehicles, dump trucks, tractor trucks, city buses, and coaches.

Figure 15 shows the 20 cities with the most new NECV registrations in 2021. Among these city leaders, seven had more than 6,000 NECV registrations and 19 had a market share above 5%; in contrast, in 2020, just two cities had more than 6,000 registrations and nine had a market share above 5%. From 2020 to 2021, Shanghai replaced Shenzhen and became the largest NECV city market in terms of NECV registrations and market penetration; Tangshan, Shenyang, Kunming, Harbin, and Jinan entered the top 20 city list, and they replaced Hangzhou, Dongguan, Foshan, Hefei, and Fuzhou.

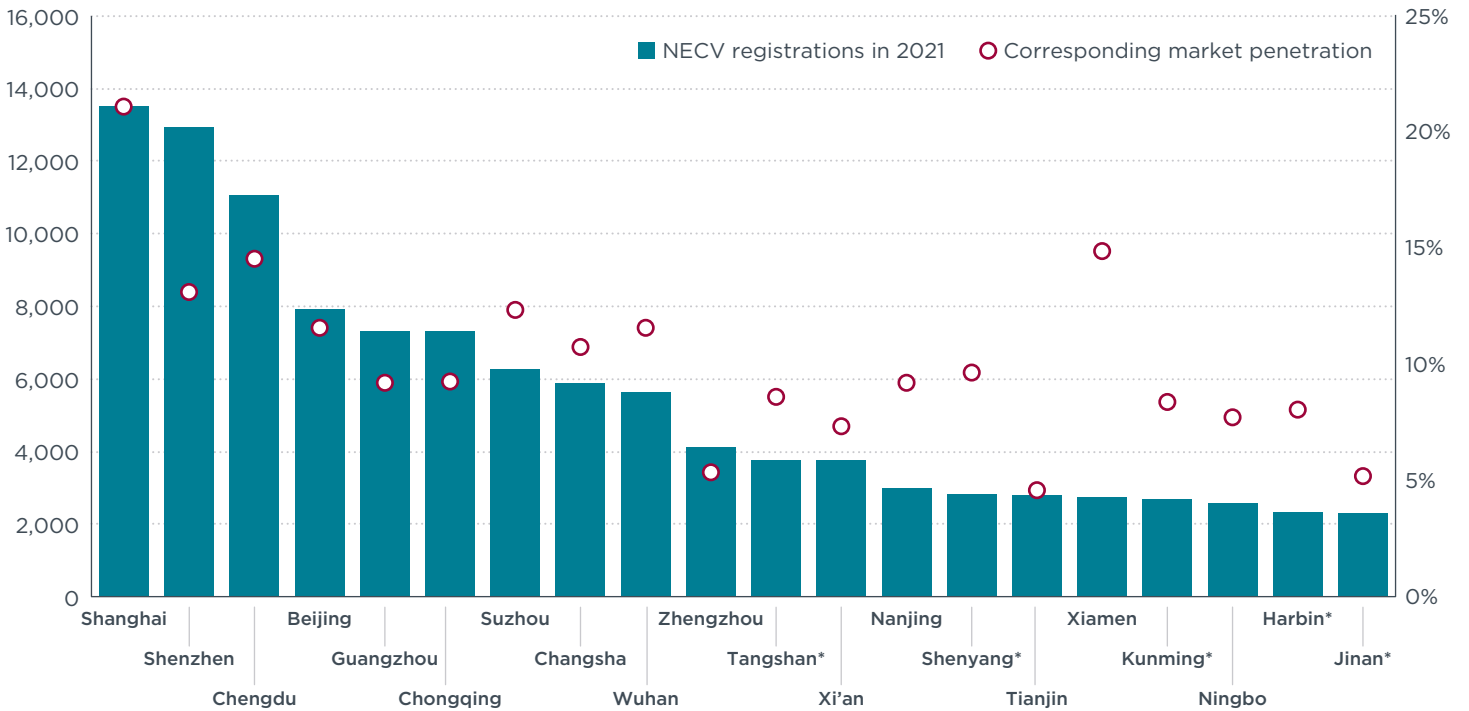


Figure 15. New energy commercial vehicle registrations and market penetration in leading cities, 2021.

*Denotes cities that were new members of the top 20 list in 2021.

Figure 16 shows the top 10 cities in terms of new NECV registrations in 2021 by major vehicle category. The bars (top axis) denote the market size, and the dots (bottom axis) represent the corresponding market share in the same categories. The following subsections provide more details and high-level insights into policy drivers by vehicle category. Some of the policy drivers were discussed at length in our report covering data up to 2020 and they continued to make an impact on the 2021 market.

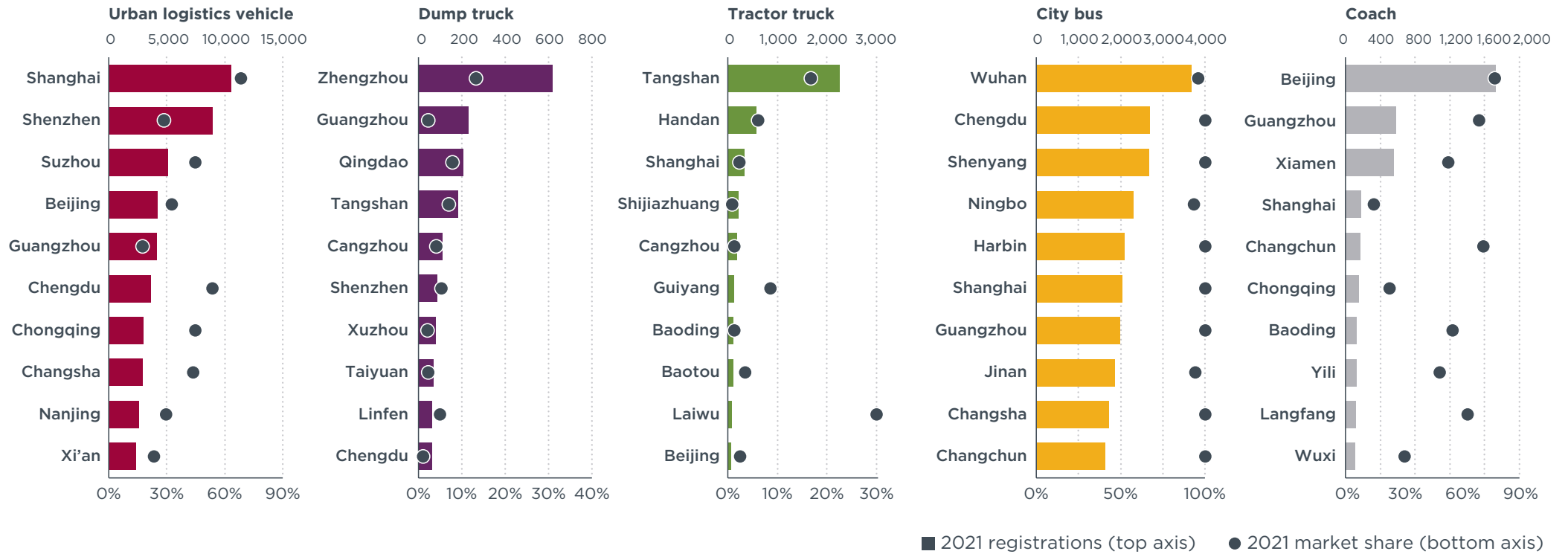


Figure 16. Registrations and market penetration of various types of new energy commercial vehicles in the top 10 cities for each by category, 2021.

Urban logistics vehicles

China deployed over 75,000 new energy urban logistics vehicles in 2021, almost twice the 2020 level of approximately 40,000. The top 10 cities of this sub-market in 2021 were home to over 60% of the national total. They were Shanghai, Shenzhen, Suzhou (Jiangsu province), Beijing, Guangzhou, Chengdu (Sichuan province), Chongqing, Changsha (Hunan province), Nanjing (Jiangsu province), and Xi'an (Shaanxi province). The new registrations ranged from over 2,000 in Xi'an to 10,000 in Shanghai, with market shares ranging from 18% in Guangzhou to 68% in Shanghai. All 10 leading cities are national logistics hubs of China and half of them were enlisted as pilot cities in the national green freight delivery pilot program; adopting a high percentage of new energy trucks was one of the vital development paths of this program.¹¹

Among the top 10 city markets, Shanghai's performance was particularly noteworthy. The city's position changed dramatically as it was not on the list at all in 2020 and then was in first place in 2021. This was driven by its progressive NEV development plan, which set an ambitious goal of fully electrifying its new urban logistics vehicles by 2025 and was paired with generous road access incentives for battery-electric and hydrogen fuel cell electric logistics trucks.¹²

Dump trucks and tractor trucks

New energy dump truck and tractor truck sales increased significantly in 2021 and exceeded 7,500 units. In the leading cities of the 2021 new energy dump truck market, Zhengzhou had the highest new registrations and market share (over 600 and 13%, respectively); Chengdu, on the other hand, had the lowest (a few dozen and 1%, respectively). For tractor trucks, performance varied greatly among the leading cities. Tangshan had the largest deployment in terms of absolute sales at over 2,200, while Beijing's new sales were only about a tenth of that. Market shares also varied, ranging from less than 1% in Shijiazhuang on the low end to above 30% in Laiwu on the high end.

Environmental policies played a significant role in supporting the new energy dump truck and tractor truck markets. A national campaign against air pollution, the *National Plan of Blue-Sky Defense*, and campaigns against diesel emissions were initiated in 2018 and they required using the cleanest trucks available in the market (including new energy trucks) in heavily polluting industrial sectors.¹³ This has primarily driven the deployment of new energy heavy trucks in regions where such heavily polluting industries are located. Zhengzhou of Henan province, Qingdao and Laiwu of Shandong province, Tangshan, Cangzhou, Shijiazhuang, Handan, and Baoding of Hebei province, Baotou of Inner Mongolia Autonomous Region, Linfen of Shanxi province, and Beijing were the key cities under the scope of those campaigns.¹⁴ Tangshan's leading position in deploying new energy heavy trucks is evidence of the success of these policies, as many steel and iron giants in the city chose to shift their diesel trucks to zero-emission alternatives.

11 Ministry of Transport of the People's Republic of China, "Name List of the 16 Pilot Cities for Green Freight Delivery Demonstration Program Released," August 12, 2021, http://www.gov.cn/xinwen/2021-08/12/content_5630889.htm; Ministry of Transport of the People's Republic of China, "Three Departments Jointly Launched the Green Freight Delivery Demonstration Program," December 27, 2017, http://www.gov.cn/xinwen/2017-12/27/content_5250767.htm.

12 Shanghai Municipal Road Transport Administrative Bureau, "Shanghai's 14th Five-year Plan for Road Transport Industry Development," (2021), <https://dllys.sh.gov.cn/sdlysjwj2021nd/20211126/04db3627182f4182adef8474d28f2ff3.html>; Shanghai Municipal Government, "Measures of Shanghai Municipality to encourage the purchase and use of new energy vehicles" (2021), <https://www.shanghai.gov.cn/nw12344/20210210/432b54af74bb48b093d6b0108b2eb286.html>.

13 Ministry of Ecology and Environment, "Action Plan for Battle Against Diesel Truck Pollution," (2018), http://www.gov.cn/zhengce/zhengceku/2018-12/31/content_5438130.htm.

14 Ministry of Ecology and Environment, "Action Plan for Comprehensive Control of Air Pollution in Autumn and Winter 2020-2021 in the Beijing-Tianjin-Hebei Region, Its Surrounding Areas, and the Fenhe and Weihe Plain," (2020), https://www.mee.gov.cn/xgk/2018/xgk/xgk03/202011/t20201103_806152.html.

Buses and coaches

Among all commercial vehicle categories in China, buses and coaches are closest to full electrification. In 2021, nearly 97%, or about 84,000 new city buses registered nationwide, were new energy ones. Moreover, seven of the 10 leading cities realized 100% electrification of their new city bus registrations: Chengdu, Shenyang, Harbin, Shanghai, Guangzhou, Changsha, and Changchun. Of particular note is that three cities in northern China (Shenyang, Harbin, and Changchun), where extreme cold weather is frequent in winter, were in the top 10 list. Their success implies enhanced usability of new energy vehicle products, even in cold-weather conditions.

In 2021, over 6,500 new energy coaches were registered in China, of which 58% were from the top 10 leading city markets. Registrations in those leading cities ranged from 108 in Wuxi to over 1,700 in Beijing, with corresponding market shares ranging from 14% in Shanghai to 77% in Beijing. Note that Yili, which ranked eighth in terms of number of new registrations of new energy coaches, is located near the border in northwestern China and is the westernmost of the leading cities we identified for the years 2021 and 2020. As mentioned in our recent report, Western and Northern China have huge electrification potential; by starting its electrification initiative in the tourism coach fleet, Yili has become a pioneer in its city group.¹⁵

Government efforts were significant in the 2021 new energy coach market. For instance, many new intercity highways have been built recently in the Jing-Jin-Ji area. The Beijing Municipal Government encouraged and supported chartered intracity and intercity passenger transport businesses by offering operations and management flexibility. The government required, starting from 2021, that all new coaches used for intracity travel purposes need to be new energy ones; NEV percentage requirements for new intercity coaches will also be set and then strengthened in the coming years.¹⁶ Another example was Guangzhou. The city promoted electrification of its coach fleet by setting a 20% or higher new energy fleet target in its tender for inter-county chartered passenger transport in 2021.¹⁷

SUMMARY

Even with the disruption in vehicle markets caused by the global pandemic, the NEV market in China surged in the past 3 years. The growth was particularly remarkable in 2021, when new NEV registrations were more than double what they were in 2020. Our key highlights from this update for 2021 are as follows.

For passenger cars:

- » New Tier 1 cities overtook Tier 2 cities and became the biggest market contributors in 2021, representing 29% of the national total. The contributions from smaller cities, especially Tier 2, 3, and 4 cities, also increased and their combined market share increased to 46% in 2021, up from 38% in 2020.
- » Tier 4 cities replaced Tier 2 cities as the strongest private NEPC subnational markets in 2021, with a market share of 87%; among the top 30 NEPC cities, Liuzhou (Tier 3) stood out for its remarkably high private share of 92% in its NEPC market.

15 "Delivered Again! 50 Zhongtong Luxury Tour Buses Delivered to Xinjiang," *Zhongtongbus News*, May 8, 2021, <https://www.zhongtong.com/html/zxzx/gsxw/4363.html>.

16 "Blockbuster White Paper Released! One-Hour Traffic Circle in Beijing-Xiongan-Tianjin Area is Coming!" *Sohu News*, December 26, 2021, https://www.sohu.com/a/511768380_121128329; Beijing Municipal Commission of Transport, "Beijing's Implementation Plan for 'Road Passenger Transport and Passenger Station Management Regulations,'" (2020), http://jt.w.beijing.gov.cn/xxgk/flfg/zcfg/202206/t20220609_2733427.html.

17 Guangzhou Municipal Transportation Bureau, "Tender Announcement of 2021 Guangzhou Inter-County Chartered Passenger Transport" (2021), http://jt.gz.gov.cn/zwgg/ywgg/cgxm/zbgg/content/post_7964638.html.

- » Chinese consumers preferred mini cars and SUVs the most in 2021. Small-size cars were more popular in Tier 3, 4, and 5 cities, and larger and higher-end cars with superior vehicle performance were more prevalent in Tier 1 through Tier 2 cities.
- » From 2020 to 2021, the top 30 NEPC city markets remained almost the same, except that Heze, Jining, and Xiamen dropped off the list in 2021 and were replaced by Jinhua, Taizhou, and Wuxi; the geographical distribution of the 30 leading cities remained almost the same.
- » Nine new cities joined the top-runner lists (the top five in each city class) in 2021: Chengdu and Nanjing in New Tier 1, Wuxi in Tier 2, Puyang, Beihai, and Luohe in Tier 4, and Huangnan, Danzhou, and Fangchenggang in Tier 5. City cluster development paths such as “Guangxi Mode” mainly explain the impressive market performance in the leading smaller city markets.

For commercial vehicles:

- » Despite the contraction of the overall commercial vehicle market, the NECV market’s performance in 2021 was impressive, with nearly 200,000 in registrations and a 4.6% share of the market. New energy coaches, dump trucks, and tractor trucks saw the most remarkable increases.
- » Over 75,000 new energy urban logistics vehicles were registered in 2021, almost twice the 2020 level. Shanghai, Shenzhen, Suzhou, Beijing, and Guangzhou were the largest local markets in 2021, while Shanghai, Chengdu, Suzhou, Chongqing, and Changsha led in terms of market share. The thriving new energy urban logistics vehicle market was primarily driven by the national green freight delivery pilot program.
- » More than 2,000 new energy dump trucks and 5,000 new energy tractor trucks were registered nationwide in 2021, and in each category new energy vehicles reached a market share of around 1%. Sales of these two truck types were more than six times higher than they were in 2020. The leading local markets for new energy dump trucks in 2021 were Zhengzhou, Guangzhou, Qingdao, Tangshan, and Cangzhou, and Zhengzhou led the others by a wide margin with more than 600 trucks sold and more than 10% market penetration. Tangshan was the most outstanding local new energy tractor market, with over 2,200 vehicles sold and a 17% market share in 2021. The remarkable growth of new energy heavy trucks resulted from China’s three-year *National Plan of Blue-Sky Defense* and clean diesel campaigns.
- » City buses were close to full electrification in 2021, and 97% of all new city buses, or about 84,000, registered in the nation were new energy ones. Over 6,500 new energy coaches were sold in China in 2021, more than quadruple the number sold in 2020. Beijing, Guangzhou, and Xiamen were the largest three city markets in 2021, and Changchun stood out for its high market penetration that was second only to Beijing’s. New energy percentage targets set by local governments and the corresponding supportive measures from governments played significant roles in driving these sales.