New Energy Vehicle Quality Problems Increase in China as Growth Slows, J.D. Power Finds

Infotainment Systems Remain the Most Problematic Category

SHANGHAI: 5 June 2025 – The overall average initial quality of new energy vehicles (NEVs) this year is 226 problems per 100 vehicles (PP100), an increase of 16 PP100 from 2024, according to the J.D. Power 2025 China New Energy Vehicle Initial Quality StudySM (NEV-IQS), released today. A lower number of problems indicates higher quality.

The study, first published in 2019, is based on the annual J.D. Power U.S. Initial Quality Study[™] (IQS). The NEV-IQS measures new-vehicle quality by examining problems experienced by NEV owners in China within the first two to six months of ownership in two categories, design-related problems and defects/ malfunctions.

This year's findings indicate that, despite the overall increase in problems, the pace of increase has moderated. From 2023 to 2024, the pace increased 37 PP100 and from 2024 to 2025, the pace increased 16 PP100. Malfunction-related problems have climbed 9 PP100 year over year. The PP100 for battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs) is 220 and 234, respectively, an increase of 9 PP100 and 26 PP100 from 2024.

"With the continuous iteration of battery technologies, problems related to batteries and charging are decreasing," said **Elvis Yang, general manager of auto product practice at J.D. Power China**. "Concerns about range anxiety and charging convenience are gradually fading. Additionally, as NEVs penetrate deeper across all price segments, the user experience for different vehicle types is becoming more diverse. For example, the increasingly popular 'boxy' rugged SUV design resonates with users' desire for adventure and freedom, however, their actual usage is mostly urban commuting. In this context, balancing bold styling with noise, vibration and harshness control and comfort has become a key test of OEMs' capabilities."

Following are some key findings of the 2025 study:

- Infotainment systems remain most problematic: In 2025, infotainment systems remain the most problematic category with 31 PP100. Among the 10 problem areas, the largest increase is in configuration/control systems/instrument panels (+3.5 PP100), highlighting OEMs' lack of focus on fundamental quality amid rapid tech upgrades. Battery/ charging is the only area to show improvement (-3.2 PP100), with the largest drop in problems in the pure electric range area—reflecting reduced owner anxiety as battery capacities improve.
- PHEV and REEV models see sales surges despite decline: The market share for PHEVs has
 increased by 8 percentage points year over year, especially in the RMB 100,000-200,000 segment.
 Range Extend Electric Vehicle (REEV) model market share has increased by 3 percentage points in
 the RMB 200,000-300,000 segment. However, all PHEVs and REEVs are facing product quality
 problems, with 2025 scores of 234 PP100 and 235 PP100, respectively—much higher than for BEVs
 (220 PP100). PHEVs show a significant increase in design-related problems (+12 PP100), while
 REEVs see a sharp rise in malfunction-related problems (+17 PP100). Infotainment system
 problems have risen by 5 PP100 for PHEVs and 7 PP100 for REEVs. Also, driver assistance
 problems have surged for REEVs (+6 PP100).

• MPVs and off-roaders are popular, but quality lags: Diversified demand is driving interest in NEV MPVs and off-road vehicles. MPV sales in tier-one cities have risen 4.4% year over year, driven by family needs and road-trip demand.¹ However, quality remains a concern, with MPVs showing the highest PP100 increase among the three body types at 20.8%. Of the top 20 problems for MPVs, four are seat-related—mainly affecting the second and third rows—and include issues like limited seat adjustment range, seat noise at high speed and poor seatbelt fit. Off-road NEVs, favored for their driving fun, have a share that is 8.2 percentage points higher in tier-two cities compared to non-off-road models. However, while these vehicles attract attention with their bold designs, their quality often falls short. Five of the top 20 problem areas in the off-road segment relate to noise and abnormal sounds.

Highest-Ranked NEV Models

Models that rank highest in their respective segment are:

- Small BEV Car: Wuling Hongguang MINI
- Compact BEV Car: ORA Haomao
- Compact BEV SUV: Wuling Bingo Plus
- Midsize BEV Car: NIO ET5/ET5T
- Midsize BEV SUV: BYD Sea lion 07 EV
- Large BEV: Xiaomi SU7
- Premium BEV: **BMW iX3**
- Premium PHEV SUV: Li L9 (REEV)
- Premium PHEV MPV: Denza D9 PHEV
- Mass Market PHEV Car: BYD Seal06 PHEV
- Compact PHEV SUV: Chery Fulwin T9, Galaxy L7 PHEV
- Compact REEV SUV: DEEPAL S07 (REEV)
- Midsize PHEV SUV: WEY Lanshan PHEV
- Midsize REEV SUV: AVATR 07 (REEV)

Award criteria in the Small BEV SUV, Premium PHEV Car, Mass Market PHEV MPV and Mass Market BEV MPV segments were not met, therefore, no awards are given this year in those segments.

The China New Energy Vehicle Initial Quality Study (NEV-IQS) measures new-vehicle quality by examining problems experienced by NEV owners in two segments: design-related problems and defects/ malfunctions. Specific diagnostic questions include 236 problem symptoms across 10 categories: features/ controls/ displays; exterior; interior; infotainment system; seats; driving experience; driving assistance; powertrain; battery/ charging; and climate.

The study this year is based on responses from 20,829 vehicle owners who purchased their NEV between July 2024 and January 2025. The study includes 122 models from 48 different brands, among which 107 models have sufficient samples. The study was fielded from January 2025 through March 2025 in 81 cities across China.

J.D. Power is a global leader in consumer insights, advisory services and data and analytics. Those capabilities enable J.D. Power to help its clients drive customer satisfaction, growth and profitability.

¹ Reference: J.D. Power 2024 China New Energy Vehicle Customer Experience Value Index (NEV-CXVI) StudySM

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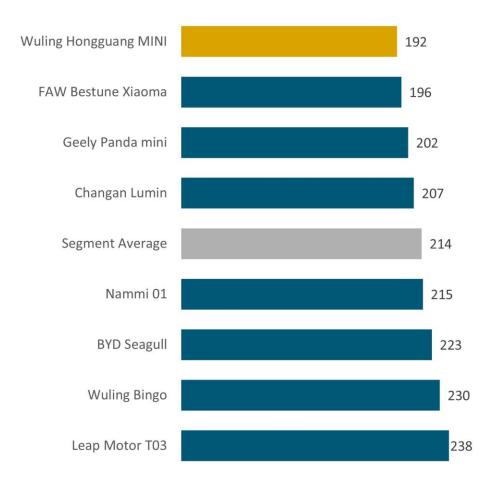
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NOTE: 10 charts follow.

Model Ranking per Segment

Problems per 100 Vehicles (PP100)

Small BEV Car



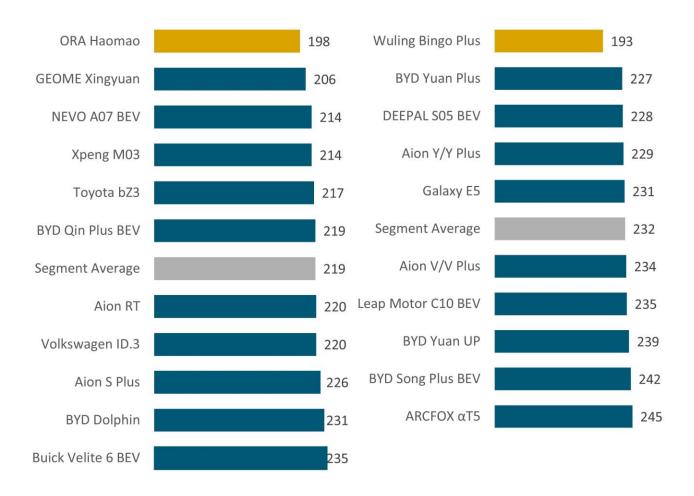
Source: J.D. Power 2025 China New Energy Vehicle Initial Quality Study SM (NEV-IQS)

Model Ranking per Segment

Problems per 100 Vehicles (PP100)

Compact BEV Car

Compact BEV SUV



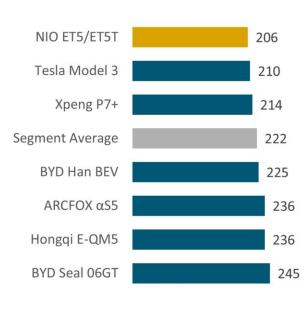
Source: J.D. Power 2025 China New Energy Vehicle Initial Quality StudySM (NEV-IQS)

Model Ranking per Segment

Problems per 100 Vehicles (PP100)

Midsize BEV Car

BYD Sea lion 07 EV 198 LUXEED R7 BEV 207 IM LS6 209 Xpeng G6 209 Volkswagen ID.4 Crozz 210 Leap Motor C16 BEV 215 Buick E5 221 Segment Average 222 smart #1 223 **ONVO L60** 224 **BYD Song L BEV** 225 Tesla Model Y 227 Volkswagen ID.4 X 233 Leap Motor C11 BEV 239 Chery iCAR 03 246



Scores are not shown for small sample (n=30~99)models. (Midsize BEV Car: Dongfeng $e\pi$ 007 BEV, BYD Seal BEV, Galaxy E8. Midsize BEV SUV: Hyper HT)

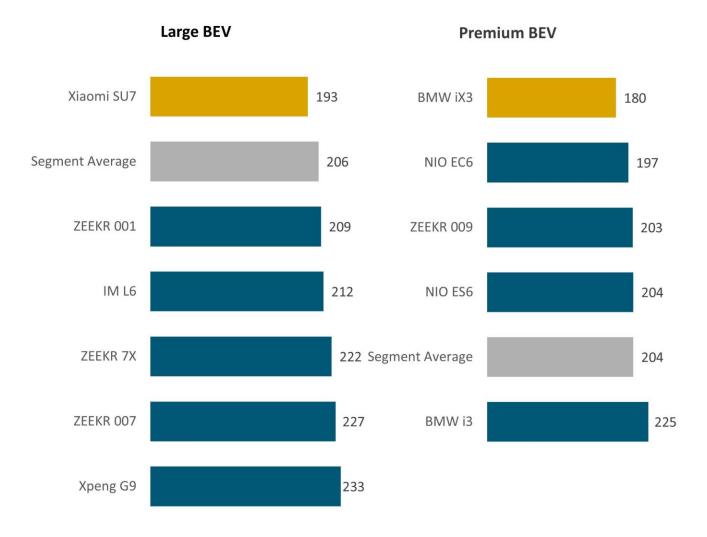
Source: J.D. Power 2025 China New Energy Vehicle Initial Quality Study[™] (NEV-IQS)

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Midsize BEV SUV

Model Ranking per Segment

Problems per 100 Vehicles (PP100)

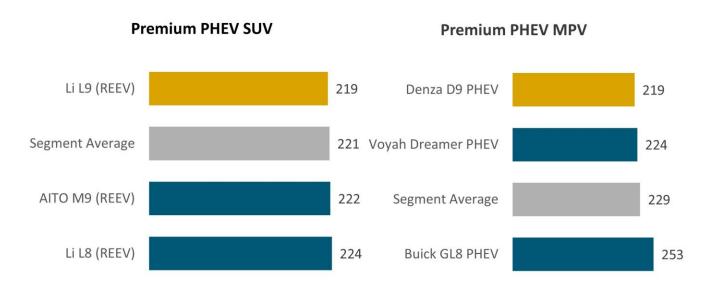


Scores are not shown for small sample (n=30~99)models. (Large BEV: AVATR 07 BEV, AVATR 12 BEV. Premium BEV: STELATO S9) J.D. Power defines a model as Premium if the average MSRP exceeds 350,000 RMB.

Source: J.D. Power 2025 China New Energy Vehicle Initial Quality StudySM (NEV-IQS)

Model Ranking per Segment

Problems per 100 Vehicles (PP100)



Scores are not shown for small sample (n=30~99)models. (Premium PHEV SUV: Fangchengbao Bao 8. Premium PHEV MPV: GAC Trumpchi E9 PHEV)

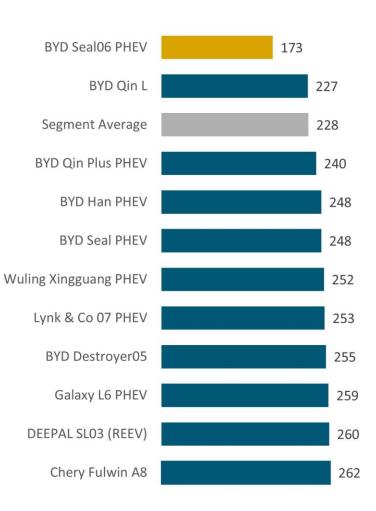
J.D. Power defines a model as Premium if the average MSRP exceeds 350,000 RMB.

Source: J.D. Power 2025 China New Energy Vehicle Initial Quality Study ^{5M} (NEV-IQS)

Model Ranking per Segment

Problems per 100 Vehicles (PP100)

Mass Market PHEV Car



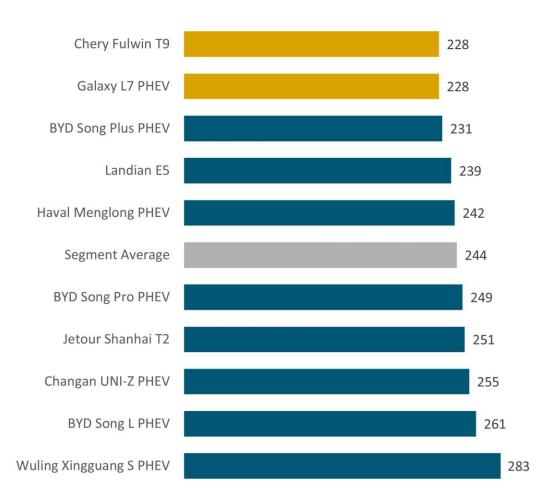
Scores are not shown for small sample (n=30~99)models. (Mass Market PHEV Car: DEEPAL L07 (REEV), NEVO A05)

Source: J.D. Power 2025 China New Energy Vehicle Initial Quality Study SM (NEV-IQS)

Model Ranking per Segment

Problems per 100 Vehicles (PP100)

Compact PHEV SUV



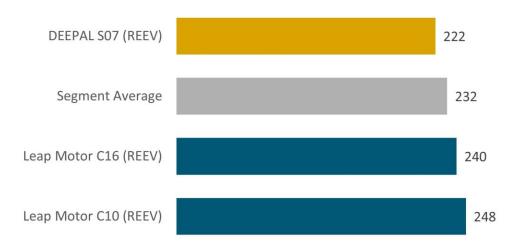
Scores are not shown for small sample (n=30~99)models. (Compact PHEV SUV: BYD Sea lion 05 PHEV, NEVO Q05)

Source: J.D. Power 2025 China New Energy Vehicle Initial Quality StudySM (NEV-IQS)

Model Ranking per Segment

Problems per 100 Vehicles (PP100)

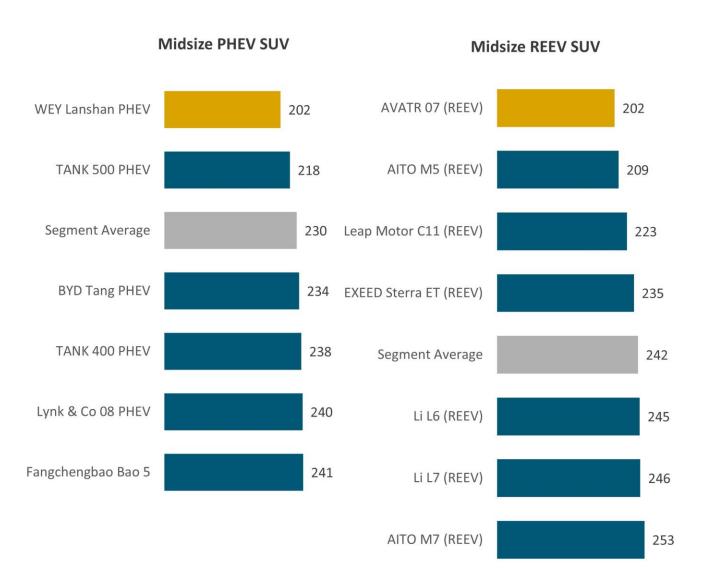
Compact REEV SUV



Source: J.D. Power 2025 China New Energy Vehicle Initial Quality StudySM (NEV-IQS)

Model Ranking per Segment

Problems per 100 Vehicles (PP100)

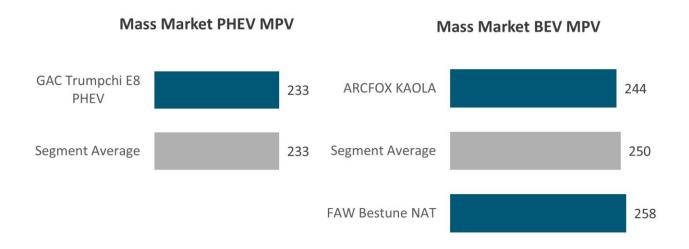


Scores are not shown for small sample (n=30~99) models. (Midsize REEV SUV: Dongfeng $e\pi$ 008 (REEV))

Source: J.D. Power 2025 China New Energy Vehicle Initial Quality Study[™] (NEV-IQS)

Model Ranking per Segment

Problems per 100 Vehicles (PP100)



Criteria for segment awards: Four models must meet the required sample threshold (at least 100 samples) for inclusion in segment ranking or three models must meet the required sample threshold (at least 100 samples) to be included in segment ranking and the sales volume of these related three models must achieve at least 80% of total market share within that segment during the sampling period. At least one model within a segment and getting a sufficient sample size must perform better than its segment average. Segments above do not meet the foregoing criteria for segment awards, thus there is no award for these segments, ranking and scores are only released for reference.

Source: J.D. Power 2025 China New Energy Vehicle Initial Quality Study[™] (NEV-IQS)