

## NEV-APEAL Makes Remarkable Progress as Competition among OEM Types Intensifies, J.D. Power Finds

Geometry E, Aion Y/Y Plus, BYD Dolphin, BYD Han BEV, XPeng G9, NIO ET7 and DEEPAL SL03 Rank Highest in Respective Segments

**SHANGHAI: 25 May 2023** – New energy vehicles (NEVs) have made significant progress in the past year, according to the J.D. Power 2023 China New Energy Vehicle–Automotive Performance, Execution and Layout (NEV-APEAL) Study,<sup>SM</sup> released today. The average NEV-APEAL score for Chinese NEVs is 776 (on a 1,000-point scale), a year-over-year increase of 37 points, confirming that rapid development of the new energy vehicle market has changed from policy-driven to product-driven.

The study examines NEV owners' assessments of their new vehicles within the first two to six months of ownership. The data is used extensively by NEV manufacturers to design and develop more appealing models. It is an important reference for new energy vehicle manufacturers to design and develop attractive vehicles.

The study shows that the overall satisfaction in the new energy industry has made remarkable progress. Among OEM types, international brands show strong growth, with the APEAL score rising 40 points to 784 from 2022, surpassing domestic startups (781), which scored higher for two consecutive years. Domestic traditional brands (773) also have made great progress, with a significant increase of 42 points from 2022. The overall APEAL score gap between OEM brands has narrowed to single digits, signaling that the competition is heating up.

"With the rapid rise of the China new energy market, the electric transformation of automobiles has become the focus of global attention," said **Elvis Yang, general manager of auto product practice at J.D. Power China**. "Many vehicle manufacturers have invested more in their new energy business and in this revolution, both traditional brands and startups are embracing the vehicle electrification with more positive attitude and more firm determination. In the increasingly competitive market, it's important to improve the user experience. Automakers need to deeply understand consumers' demand and behavior habits to manufacture more competitive products."

Following are some key findings of the 2023 study:

- **Design, fuel economy and driving range have become key to consumer experience:** In 2023, exterior ranks first in overall satisfaction in 11 categories with a score of 807 and fuel economy and driving range ranks second with a score of 780. This reflects owners' recognition of the design and fuel economy of NEVs, which will gradually lower driving range anxiety. Meanwhile, satisfaction with the infotainment system (764), driving feel (765) and charging experience (765) have improved only slightly from 2022.
- **Domestic startups promote new products at a fast pace:** In 2022, 53% of Chinese startups models were new models, contributing 66% of the revenue share of this market segment. Overall satisfaction with these new models is 788, 14 points higher than for existing models.
- **Design becomes decisive factor among females:** In the purchase stage for NEVs, product design is the main factor among female shoppers when in making their final purchase decision. The study

shows that better exterior (31%) is the top reason why female purchasers decided to buy one NEV over another. The top reason why they reject purchasing a NEV is that it doesn't look as good as they expected (23%). Product design plays a crucial role in the decision-making among female car buyers.

## Highest-Ranked Models

Models that rank highest in their respective segments are:

- Small BEV segment: **Geometry E**
- Compact BEV segment: **Aion Y/Y Plus, BYD Dolphin**
- Midsize BEV car segment: **BYD Han BEV**
- Midsize/Large BEV SUV segment: **XPeng G9**
- Premium BEV segment: **NIO ET7**
- Mass market PHEV segment: **DEEPAL SL03**

In the segments of Premium PHEV and MPV BEV, criteria for awards were not met, thus no awards are given this year in this segment.

The China New Energy Vehicle–Automotive Performance, Execution and Layout (NEV-APEAL) Study measures NEV owners' emotional attachment to and level of excitement with their new vehicle across 45 attributes in 11 vehicle experience categories: exterior; setting up and starting; getting in and out; interior; performance; driving feel; keeping you safe; infotainment; driving comfort; fuel economy and driving range; and charging experience.

The study is based on responses from 7,209 new energy vehicle owners who purchased their vehicle between July 2022 and January 2023. The study includes 76 models from 36 different brands, among which 53 models have sufficient samples. The study was fielded from January through March 2023 in 81 cities across China.

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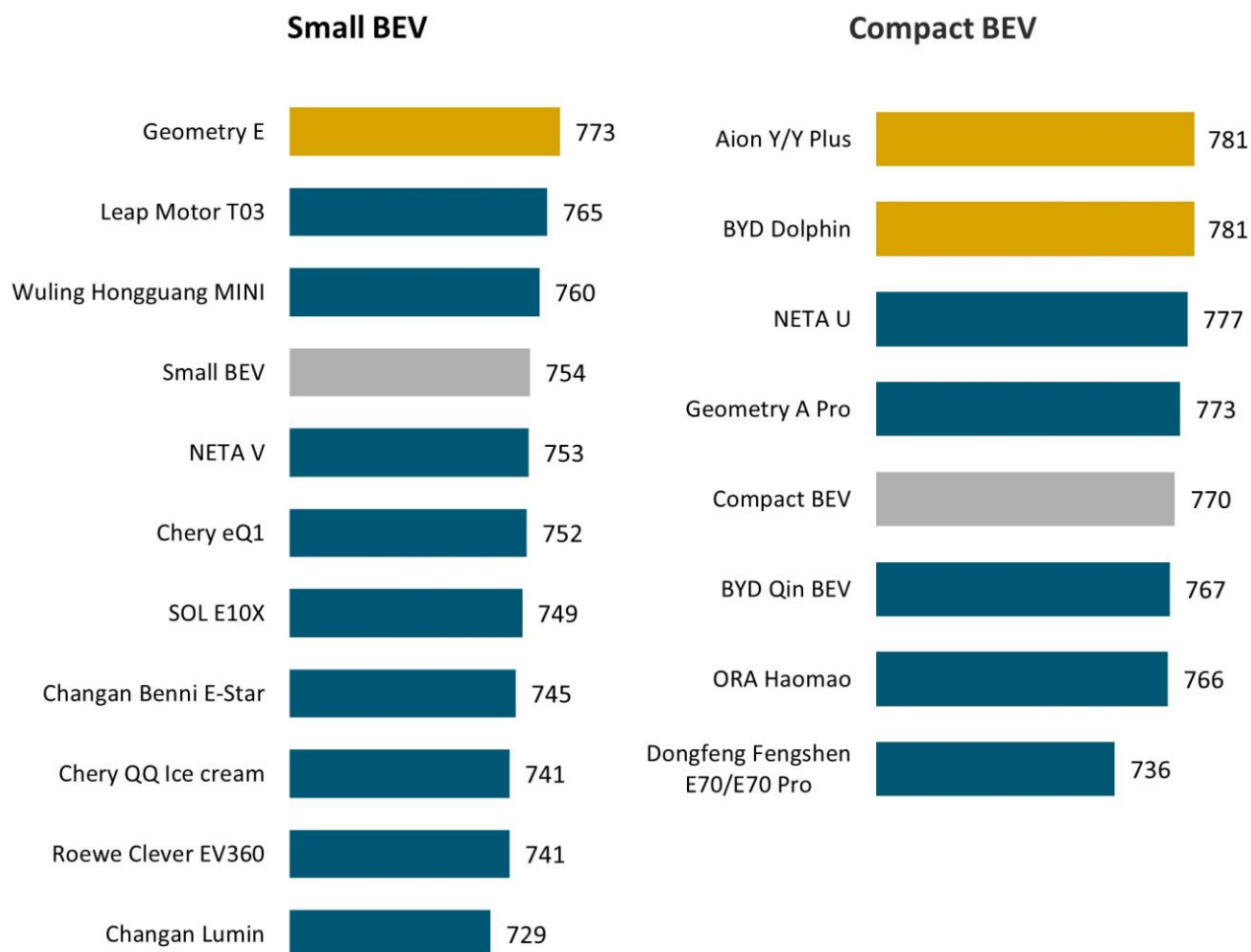
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NOTE: Four charts follow.

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## 2023 China New Energy Vehicle Automotive Performance, Execution and Layout Study<sup>SM</sup>(NEV-APEAL )

### Model Ranking per Segment (on a 1,000-point scale)



Notes: Models with identical scores are sorted alphabetically.

Scores are not shown for small sample (n=30~99) models. (Small BEV segment: Dongfeng Fengon E1, Baojun KiWi. Compact BEV: BAIC BJEV EU5 Plus, Buick Velite 6 BEV, Geely Emgrand BEV, Changan Eado EV)

Source: J.D. Power 2023 China New Energy Vehicle Automotive Performance, Execution and Layout Study<sup>SM</sup>(NEV-APEAL)

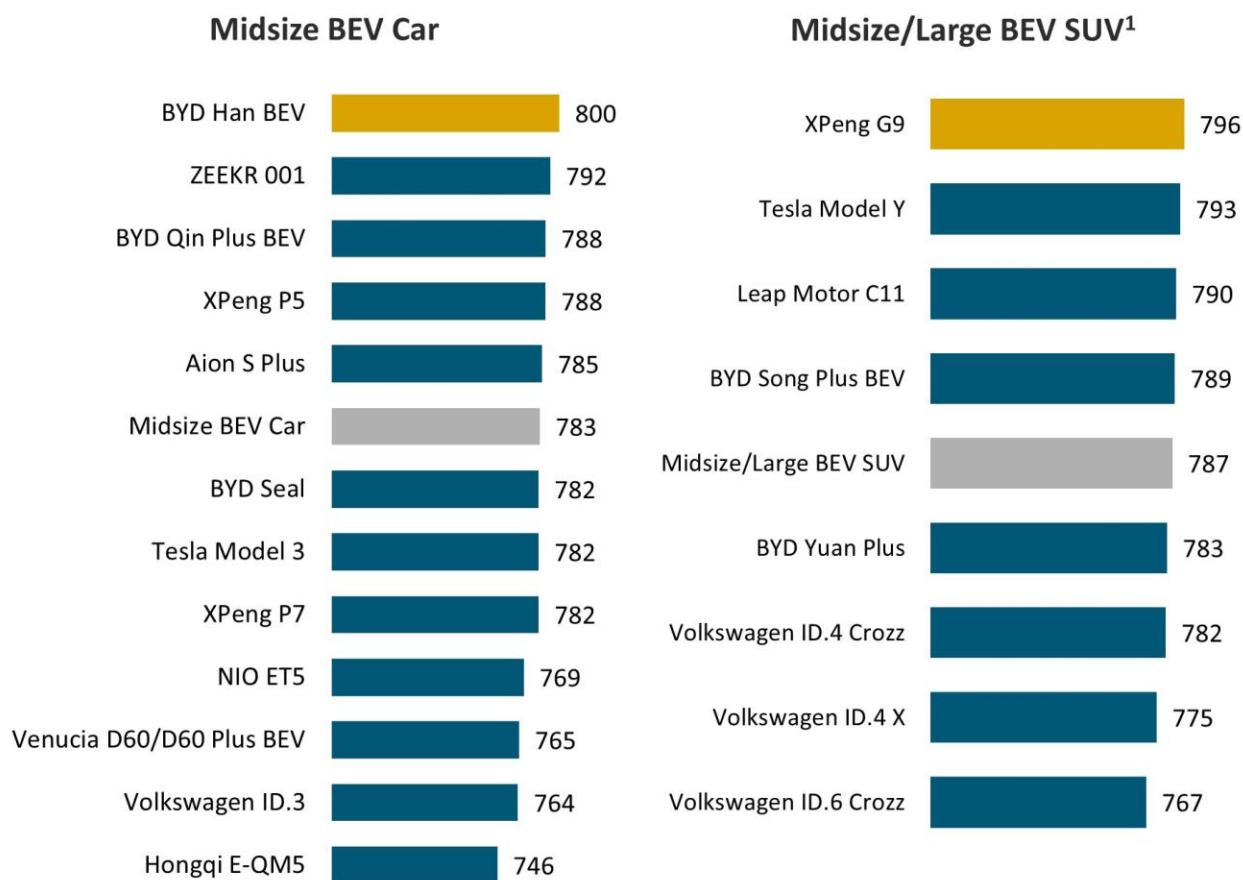
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Scores are not shown for small sample (n=30~99) models. (Midsize BEV Car: DEEPAL SL03 BEV. Midsize/Large BEV SUV: , Aion V Plus, AITO M5 BEV, smart #1, BYD Tang BEV, HYCAN Z03)

1 Segmentation of New Energy Vehicle of J.D. Power is based on 4 layers which are BEV/PHEV, Mass Market/Premium, Small/Compact/Midsize/Large and Sedan/SUV. We will merge some segments due to the limit of the sampled models. In 2023, certain Large BEV SUV is covered in the survey and combined to Midsize BEV SUV, which segment is renamed to Midsize/Large BEV SUV.

Source: J.D. Power 2023 China New Energy Vehicle Automotive Performance, Execution and Layout Study<sup>SM</sup>(NEV-APEAL )

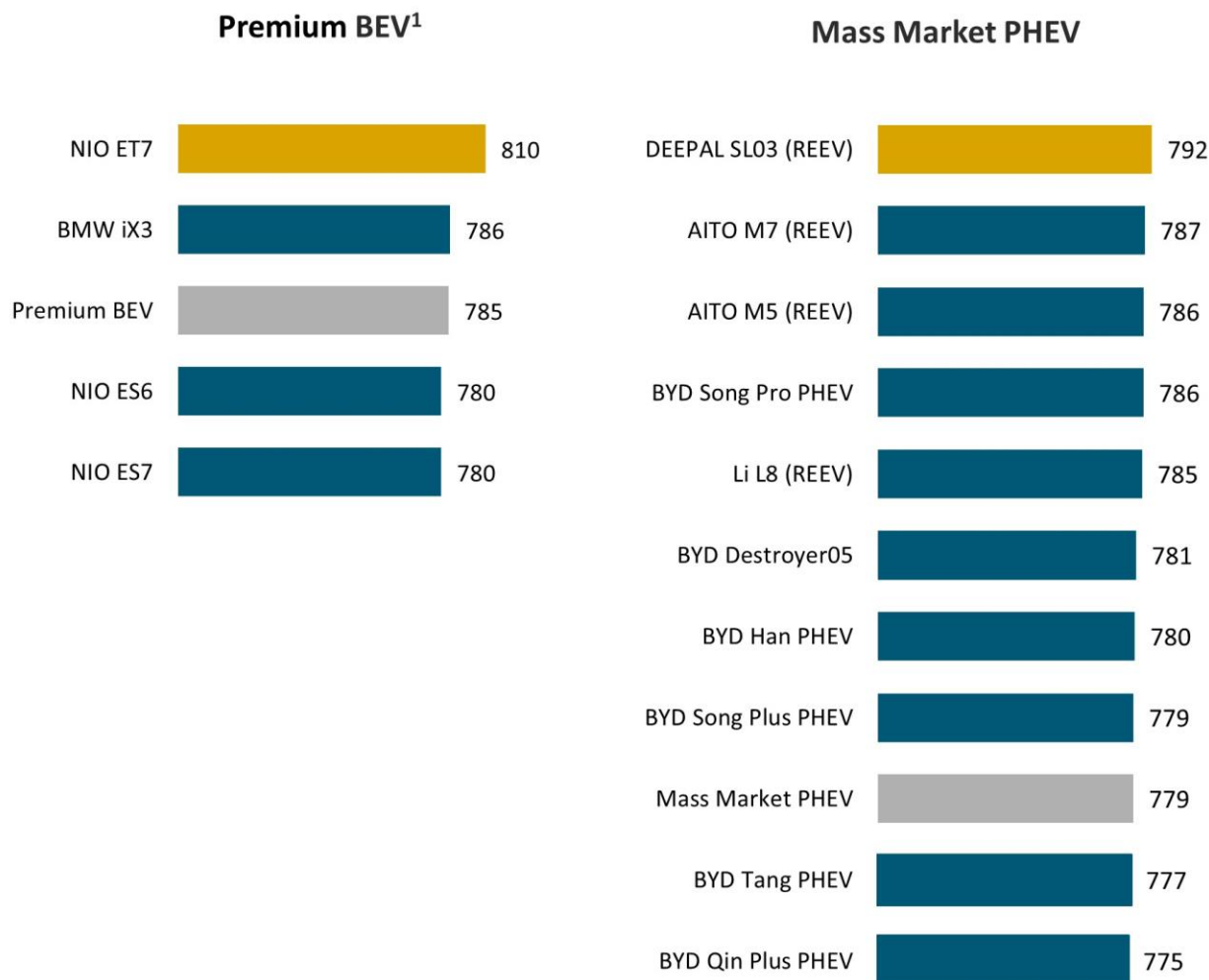
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(on a 1,000-point scale)



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<sup>1</sup>Premium BEV is a combination of Midsize Luxury BEV and Large Luxury BEV. We define a model as Luxury if the average MSRP exceeds 400,000 RMB, this definition for new energy vehicle is the same as ICEV.

Source: J.D. Power 2023 China New Energy Vehicle Automotive Performance, Execution and Layout Study<sup>SM</sup>(NEV-APEAL)

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## 2023 China New Energy Vehicle Automotive Performance, Execution and Layout Study<sup>SM</sup>(NEV-APEAL )

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### Model Ranking per Segment (on a 1,000-point scale)

#### Premium PHEV



#### BEV MPV



Notes: Models with identical scores are sorted alphabetically.

Scores are not shown for small sample (n=30~99) models. (Premium PHEV: Mercedes-Benz E-Class PHEV, BMW 5 Series PHEV, Voyah Dreamer PHEV, Porsche Cayenne PHEV)

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 located within a segment and getting a sufficient sample size must perform better than its segment average. These two segments above do not meet the foregoing criteria for segment awards, thus there is no award for these two, only ranking and scores are released for reference.

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Source: J.D. Power 2023 China New Energy Vehicle Automotive Performance, Execution and Layout Study<sup>SM</sup>(NEV-APEAL )

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