

# **Electric Mid- and Large (9-14m) Bus Market Technology Landscape, Trends and Market Analysis by Propulsion (BEV, FCEV, HEV/PHEV), Configuration (Light & Heavy Duty), Application (City/Transit Bus, Coach, Midi & School Bus) and Region - Global Forecast 2030**

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## **Abstracts**

The global electric mid- and large (9-14m) bus market size is projected to grow from 66,593 units in 2023 to 171,000 units by 2030, at a CAGR of 14.4%.

The growth of the electric mid- & large bus market is primarily fueled by the impending emission regulations with stricter limits and a rising preference for sustainable transportation. Despite being in its early stages of development, the main challenge confronting this industry is the elevated cost of electric mid- & large buses in comparison to traditional diesel buses, mainly attributed to the substantial expense of batteries. The principal obstacle faced by this market revolves around safety apprehensions and the limited range associated with battery-powered buses.

Moreover, the growing focus on electrical infrastructure with supportive government efforts, as well as the development of charging stations, are some of the factors that will significantly contribute to market growth during the forecast period.

“BEV is expected to be the largest market in the forecast period.”

BEV dominate the electric mid- & large bus market worldwide during the review period. Automotive OEMs and government agencies are striving to reduce the carbon footprint as worldwide awareness of environmental issues grows, and BEVs align with these

aspirations. Several government agencies are strategizing to replace their existing public fleets with electric mobility solutions. With lucrative incentives and tax benefits provided, the sales of advanced and long-range pure electric mid- & large buses are anticipated to experience a significant surge. It also has relatively higher operational efficiency, about 90%, compared to ICE, which is 30–40%. The average range of BEVs is 150 to 250 miles and varies based on battery type installation such as LFP or NMC. Due to this efficient battery capacity, electricity used to power the buses is less expensive than diesel, further lowering the operational costs for buses. BEVs have fewer moving components, resulting in lower maintenance costs. As the technology for pure electric mid- & large buses continues to evolve, a broader range of electric mid- & large buses is likely to be available in different sizes and configurations to meet the needs of different applications and markets.

“School buses will have considerable growth opportunities in the North American market.”

School Buses contribute a major portion of the US buses segment and around 45% electrification is expected in this segment by 2030. The predominant factor driving this expansion is the Clean School Bus Rebate Program by the US Environmental Protection Agency (EPA), which granted over USD 900 million for the acquisition of more than 2,400 electric school buses by 389 school districts. California continues to spearhead the adoption of electric school buses, with a commitment to over 1,800 units statewide, of which at least 35% are already delivered or in operation. This figure surpasses the next leading state, Maryland, by more than fivefold, as they have 361 commitments. Notably, New York experienced the most significant surge since September 2022, with 184 new commitments. OEMs in North America excel in zero-emission bus technology and has a strong focus on innovation. With advanced battery technology, these players are planning to develop efficient electric mid- & large buses to electrify the entire school bus fleet in the coming years.

“Europe is expected to be the second largest electric mid- and large (9-14m) bus market.”

Europe offers a significant opportunity for the electric mid- & large bus market as the regulations related to the environment have become stringent in the region. These regulations drive market players to test and develop advanced vehicles, which will further boost the electric mid- & large bus market. According to the National Action Plan on Energy Efficiency, Germany aims to have at least 50% of all new buses purchased by public transport authorities and companies to be electric by 2025, with the target

increasing to 100% by 2030. Europe is home to major electric mid- & large bus manufacturers and is renowned for innovations, cutting-edge R&D, and technological advancements in electric mid- & large bus. Government support through incentives and tax benefits, the presence of individual investors, and technological edge drive the European electric mid- & large bus market. European market to tend toward 100% BEV city/transit buses post 2025 and this will lead to markets such as Germany, France, and the UK having more than 3,000 BEV sales per year.

### Breakdown of primaries

The study contains various industry experts' insights, from component suppliers to Tier 1 companies and OEMs. The break-up of the primaries is as follows:

By Company Type: OEMs – 80%, Tier I/Other players - 10%

By Designation: C level - 70%, Others– 30%

By Region: Asia Pacific - 70%, Europe - 20%, North America - 10%

The key players in the electric mid- & large bus market are BYD (China), Yutong (China), CAF (Solaris) (Spain), VDL Groep (Netherlands), and AB Volvo (Sweden). The key strategies adopted by major companies to sustain their position in the market are expansions, contracts and agreements, and partnerships. These companies have set up R&D facilities and offer best-in-class products to their customers.

### Research Coverage:

The market study covers the electric mid- & large bus market by propulsion (BEV, HEV/PHEV, FCEV, and Diesel/Gasoline/NG), Configuration (Light Duty, Heavy Duty, Coach), Application (City/Transit Bus, Coaches, Midi Bus, and School Bus) and Region (Asia Pacific, Europe, and North America). It also covers the competitive landscape and company profiles of the major players in the electric mid- & large bus market ecosystem.

### Key Benefits of the Report

The study also includes an in-depth competitive analysis of the key players in the market, along with their company profiles, key observations related to product and business offerings, recent developments, and key market strategies.

The report will help the market leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall electric mid- & large bus market and the subsegments. This report will help stakeholders understand the competitive landscape and gain more insights to position their businesses better and plan suitable go-to-market strategies. The report also helps stakeholders understand the pulse of the market and provides them with information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:

Analysis of key drivers (The increasing need for sustainable mass transit solutions and the need to reduce GHG emissions), restraints (Safety Concerns in EV batteries and high development costs), opportunities (Transition towards hydrogen fuel cell electric mobility, electric mid- & large bus as a service), and challenges (High cost of developing charging infrastructure) influencing the growth of the electric mid- & large bus market

Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product & service launches in the electric mid- & large bus market

Market Development: Comprehensive information about lucrative markets – the report analyses the electric mid- & large bus market across varied regions

Market Diversification: Exhaustive information about new products & services, untapped geographies, recent developments, and investments in the electric mid- & large bus market

Competitive Assessment: In-depth assessment of market shares, growth strategies, and service offerings of leading players like BYD (Build Your Dreams) (China), CRRC Electric (China), Yutong (China), and AB Volvo (Sweden), among others in the electric mid- & large bus market

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