Bus Pantograph Charger Market - Growth, Trends, Covid-19 Impact, and Forecast (2023 - 2028)

Market Report | 2023-01-23 | 109 pages | Mordor Intelligence

AVAILABLE LICENSES:

- Single User License $4750.00
- Team License (1-7 Users) $5250.00
- Site License $6500.00
- Corporate License $8750.00

Report description:

The bus pantograph charger was valued at USD 1970.74 million and is expected to reach USD 5437.6 million over the period of five years, registering a CAGR of around 17% during the forecast period.

COVID-19 has severely affected the bus pantograph charger market for the first half of the year 2020, as lockdowns and restrictions resulted in reduced demand from transportation and other associated sectors. Furthermore, delays in electric bus projects and supply chain disruptions worsened the situation in the market. However, the majority of the automakers and EV charging providers resumed pantograph charger production with limited production and necessary measures. The sales of electric buses witnessed significant growth since the latter half of the year 2020 and are likely to continue during the forecast period. This is anticipated to drive the market in focus during the forecast period.

Over the medium term, the demand for pantograph chargers is expected to be picked up by the growing adoption of electric buses, not only for transit but also for school children's transportation across major countries in the world. Furthermore, growing government investments and their focus on improving charging infrastructure are expected to drive demand in the market during the forecast period. Moreover, a new development in the charging station market by the companies is also expected to support the growth. For instance,

Key Highlights
In October 2021, Custom Denning, one of Australia's leading bus manufacturers, chose Siemens to provide its Sicharge UC management solution and charging stations. The technology, which is currently being tested, will aid the manufacturer's upcoming electric buses. It can operate at up to 1,000 volts and has a power range of 50 to 600 kW.

In addition, investments from the key players and growing strategic collaborations between charging solution providers and bus manufacturers are anticipated to offer new opportunities for players operating in the market. There is a surge in the utilization of electric bus charging systems owing to the decreasing cost of batteries. The growing efforts to reduce greenhouse gas (GHG) emissions, along with the rise in favorable government regulations, are likely to enhance the growth of the market over the forecast period. For instance,

Key Highlights
In June 2022, the Pacific Economic Development Agency of Canada, in collaboration with British Columbia's Minister of Transportation and Infrastructure, announced a USD 31,2 million investment plan under their joint federal funding for improving public transportation services in British Columbia. The upgrade includes the construction of new transit interchanges as well as the electrification of the bus fleet.

North American region is expected to grow at a significant rate during the forecast period owing to the rising adoption of electric buses across major countries in the region. Furthermore, China and India are expected to contribute to growth in the Asia-Pacific region owing to strong encouragement from the governments, transit agencies, as well as other green vehicle-supporting communities and organizations.

Key Highlights
In March 2021, the Delhi government approved a proposal to purchase 300 new low-floor electric (AC) buses to increase the city's bus fleet. These buses have been accepted by the Delhi Transport Corporation. The first batch of 118 buses was scheduled to arrive in October 2021, with another 100 following in November. The entire delivery was supposed to be finished by January 2022.

Bus Pantograph Charger Market Trends

Rising Emphasis of Government on Eco-Friendly Buses

Diesel buses are widely used today all over the world. Furthermore, these buses are mostly used in densely populated cities, where air quality has already been degraded by other pollutants. As a result, governments across the world are focusing on developing a variety of regulations and supportive policies aimed at encouraging environmentally friendly transportation.

The EPA and NHTSA in the United States proposed implementing the Safer Affordable Fuel-Efficient (SAFE) vehicles rule from 2021 to 2026. The rule may establish corporate average fuel economy and greenhouse gas emissions standards for passenger and commercial vehicles. OEMs are required to sell a certain number of clean and zero-emission vehicles (electric, hybrid, and fuel cell-powered commercial and passenger vehicles) under the Zero-emission Vehicles (ZEV) Program. The country's ZEV plan aims to put 12 million ZEVs (including buses) on the road by 2030.

The Indian government intends to electrify 30% of total vehicle sales by 2030. As part of this strategy, the government announced a USD 1.4 billion investment in phase two of the FAME (Faster Adoption and Manufacturing of Hybrid and Electric Vehicles) program through 2022. This phase focuses on electrifying public and shared transportation in India by subsidizing 7090 electric buses. This has prompted fleet operators to switch to electric buses.

Moreover, by improving air quality, public transportation contributes to the sustainability of a city in dense urban areas, reducing the need for multiple separate trips by private vehicle. Because of these advantages, governments around the world are actively promoting sustainable and efficient public bus transportation services, which are expected to create positive momentum in the

market. For instance,

In November 2022, Metroline, a potential London bus operator, announced the purchase of 39 electric double-decker buses for intercity transit. Wrightbius, a Northern Irish bus manufacturer, procured these buses. These 39 buses are expected to travel through the London boroughs of Brent, Ealing, Harrow, and Barnet, as well as Watford in Hertfordshire, north of London, on the 297 and 142 routes. The buses have charging capabilities of up to 300 kW via CCS or 420 kW via pantographs.
In March 2022, a cutting-edge electric bus concept was unveiled in Cagliari, Italy, where bus manufacturer Rampini delivered the first of seven vehicles ordered. The delivery consists of six 6-meter battery-electric buses with pantographs. This new technology in European buses has been identified, and it has generated a lot of interest in the medium term.

North America Likely to Have Fastest Growth in the Market

North America is expected to play a key role in the growth of the market over the forecast period. Furthermore, the United States is likely to be one of the major contributors to growth in the region, owing to several government initiatives and the growing popularity of electric school buses across the country. The demand for electric buses across the North American region is anticipated to be supported by the growing adoption of governments, municipalities, etc. For instance,

In June 2021, the New York Power Authority (NYPA) announced the completion of a USD 30 million agreement to install 67 pantograph chargers across various stations in the city to charge the city's electric bus fleet.
In March 2021, the Montgomery County Public School system in Maryland approved a contract with Highland Electric Transportation to convert its school bus fleet to a fully electric fleet, beginning with converting 326 school buses through 2025. Based on the contract, Highland Electric Transportation and its partners, Thomas Built Buses, Proterra, and American Bus, will electrify all five bus depots belonging to the Montgomery County Public School district and supply electric buses and charging infrastructure.

Moreover, with the increasing transition to electric mobility, the Canadian government is also working to build a net-zero emissions transportation industry across the country. For instance,

In March 2021, the Infrastructure and Communities Ministry and the Ministry of Innovation, Science, and Industry announced CAD 2.75 billion (~USD 2.02 billion) in funding over five years, beginning in 2021, to improve public transportation systems and transition them to cleaner electrical power, including funding for the purchase of zero-emission public transportation and school buses.

Such active growth in the North American region is encouraging several key players and the players in electric bus infrastructure projects to adopt pantographs, thus driving demand for bus pantograph chargers over the forecast period. For instance,

In March 2022, ABB announced that it is offering its services to St. Louis's new electric bus fleet with the largest deployment of chargers in the United States. ABB's sequential charging system consists of 20 plug-in depot chargers with 150 kW of power and three additional pantograph chargers.

Therefore, based on the above-mentioned developments and instances, it is estimated that the North American region is likely to have the fastest growth compared to its counterparts over the forecast period.

Bus Pantograph Charger Market Competitor Analysis

Some of the leading electric bus charging infrastructure market players are ABB Ltd., Wabtec Corporation, Schunk Transit Systems GmBH, BYD, and others. The bus pantograph charger market is moderately consolidated and accounts for several global and regional players. Product innovation, joint ventures, acquisitions of smaller players, and product launches are the key strategies deployed by the major players. Moreover, initiatives taken by various governments across the world are also supporting the growth of the market. For instance,

In June 2022, a Memorandum of Understanding was signed between the Canada Infrastructure Bank and the Regional Municipality of Durham, which concluded that CIB would invest up to USD 53.1 million to support Durham Region Transit's (DRT) purchase order, which included 100 battery-electric buses to be delivered to Durham by the end of 2027. The initiative to electrify transit vehicles is a critical step toward meeting the region's climate change commitments over the next 25 years.
In December 2021, the Berliner Verkehrsbetriebe (BVG) supervisory board approved the purchase of 90 more electric buses. The vehicles are 12-meter-long battery monoplanes that will be charged in the depot, increasing demand for pantograph charging systems to be used across the country in the coming years.

The above-mentioned development in electric buses may further boost the requirement for charging stations for electric buses. Apart from these strategies, bus pantograph chargers are entering into supply agreements with key bus manufacturers and charging station providers to strengthen their position in the market. For instance,

In December 2022, Solaris Bus & Coach Sp. z o.o. has agreed to supply 35 Solaris Urbino 12 electric buses to Latvian operator Rgas Satiksme. These buses are expected to have Solaris High Energy batteries with a capacity of 140 kWh that will be charged via a plug-in connector as well as an inverted pantograph. The buses will also include an eSConnect system for managing zero-emission bus fleets. This software, created by Solaris experts, provides real-time access to vehicle data as well as the identification of any faults as they occur.

Additional Benefits:

The market estimate (ME) sheet in Excel format
3 months of analyst support

Table of Contents:

Bus Pantograph Charger Market - Growth, Trends, Covid-19 Impact, and Forecast (2023 - 2028)

Market Report | 2023-01-23 | 109 pages | Mordor Intelligence

To place an Order with Scotts International:

- - Print this form
- - Complete the relevant blank fields and sign
- - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	$4750.00
	Team License (1-7 Users)	$5250.00
	Site License	$6500.00
	Corporate License	$8750.00
	VAT	
	Total	

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*		Phone*	
First Name*		Last Name*	
Job title*			
Company Name*		EU Vat / Tax ID / NIP number*	
Address*		City*	
Zip Code*		Country*	
		Date	2025-06-25
		Signature