

Electric Vehicle Charging: Infrastructure and Global Markets

Market Research Report | 2022-10-20 | 151 pages | BCC Research

AVAILABLE LICENSES:

- Single User License \$5500.00
- 2-5 Users License \$6600.00
- Site License \$7920.00
- Enterprise License \$9504.00

Report description:

Description

Report Scope:

This report analyzes the global and regional markets in electric vehicle charging and the global markets for wired infrastructure. Electric vehicles (EVs) include passenger vehicles, scooters and buses. State-of-the-art batteries have enabled a growing niche market for trucks, buses, small electric scooters and Segway-type vehicles. These electric vehicles require a charging infrastructure, which is expected to experience high growth in the future.

Market data in this report quantify opportunities for manufacturers of electric charging infrastructure. In addition to identifying various charging infrastructure types, charging services, installation types and charging types, it also covers the many issues concerning the merits of and prospects for the electric vehicle charging infrastructure business. These include corporate strategies, emerging technologies and the means for providing low-cost, high-technology products. The economic and technological issues regarded by many as critical to the industry's current change state are also covered in detail.

The report has been prepared in a simple, easy-to-understand format; tables and figures are included to illustrate historical, current, and future market scenarios. The report also covers leading companies with information regarding charging infrastructure types, business footprint, revenue and employee strength. A list of other companies in the global market with their product-related information is also included.

The impact of COVID-19 and the Russia-Ukraine war are discussed regarding their impact on the global and regional markets. 2021 is considered a historical year; 2022 is considered the base year. Market values are forecast for five years from 2022 to 2027. All market values are in U.S. dollar (\$) million amounts.

- 38 total tables

- An up-to-date overview of the global market scenario for electric vehicle (EV) charging infrastructure

- Analyses of the global and regional market trends, with historic market revenue for 2021, estimates for 2022, and projections of compound annual growth rates (CAGRs) through 2027

- Highlights of the current and upcoming market potential for the EV charging infrastructure, industry growth drivers, and areas of focus to forecast this market into various segments and sub-segments

- Estimation of the actual market size and market forecast for electric vehicle charging infrastructure, and corresponding market share analysis based on EV type, charger type, installation/system, connector type, and geographic region

- Updated information on key market drivers and opportunities, industry shifts and regulations, and other demographic factors that will influence this market demand in the coming years (2022-2027)

- Insight into the major technology challenges, issues and risks, government regulations, recent developments, and COVID-19 impact on the global EV charging market

- Patent review and new developments, R&D efforts, industrial changes with emphasis on recent investments, and current state of the market for electric vehicle charging infrastructure

- Identification of the major stakeholders and analysis of the competitive landscape based on recent developments and segmental revenues

- Descriptive company profiles of the leading global players, including Eaton, Fortum, ChargePoint Inc. and Leviton

Executive Summary

Summary:

The global electric vehicle charging for wired infrastructure was valued at \$REDACTED billion in 2021, and it is projected to reach \$REDACTED billion by 2027. This market is expected to grow at a CAGR of REDACTED% from 2022 to 2027.

Electric vehicle charging infrastructure plays a significant role in boosting the demand for electric vehicles. The trends for plug-in electric vehicles are on a significant growth trajectory, including battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs). Both BEVs and PHEVs can be charged externally, and they have long driving ranges; this has helped to reduce the range anxiety in the minds of potential customers who hesitated to go with electric vehicles at some point. Robust charging infrastructure will add more confidence to buyers, as there will be no scarcity of charging points to serve the demands of users within the growing fleet of plug-in electric vehicles. Governments plan to invest in

developing the charging infrastructure to support the targets they have set for inducting clean vehicles into the total vehicular fleet.

From a regulatory standpoint, automakers are compelled to produce a certain percentage of green vehicles to balance the carbon footprint from sales of conventional vehicles. This percentage varies among countries, depending on the governing committee adopting green alternatives. Reduced prices for key components within hybrid vehicles also diminish the price gap between conventional and hybrid vehicles.

The price gap becomes more significant with the increasing battery driving range, but advancements in battery technology and the continuous decline in battery prices will reduce this price gap and make the option of hybrid and electric vehicles more attractive for typical buyers. The Asia-Pacific region, Europe and North America are the largest electric vehicle charging infrastructure markets. Asia-Pacific and Europe are the fastest-growing electric vehicle regions, and these regions will drive the electric vehicle charging infrastructure market during the forecast period.

This report covers the top electric vehicle charging infrastructure manufacturers, including the original equipment manufacturers (OEMs) with in-house manufacturing capabilities. Asia-Pacific-based suppliers are expanding due to increased demand for their low-cost products, regionally and internationally. Most of these companies have formed joint ventures with more established global suppliers, such as ChargePoint Inc., Blink Charging Co. and Electrify America LLC.

The COVID-19 outbreak and the Russia-Ukraine war have disrupted global supply chains, particularly in the automotive industry. In many areas, the COVID-19 pandemic had a marginal effect on the EV charging industry in early 2020 due to lockdowns. International businesses have found it challenging to conduct business with Russia due to sanctions. It has also become challenging for Russian businesses to access the newest EV components and technology. In the long run, however, government and business efforts to electrify transportation are laying a solid foundation for future EV sales growth.

Table of Contents:

Table of Contents Chapter 1 Introduction 1.1 Study Goals and Objectives 1.2 What's New in This Update? 1.3 Reasons for Doing This Study 1.4 Scope of Report 1.5 Information Sources 1.6 Intended Audience 1.7 Methodology 1.8 Geographic Breakdown 1.9 Analyst's Credentials 1.10 BCC Custom Research 1.11 Related BCC Research Reports Chapter 2 Summary and Highlights Chapter 3 Market Overview 3.1 Current Market Overview 3.2 Technological Background and Advancements 3.2.1 EV Charging Technology History 3.2.2 Evolution of Electric Vehicles and Their Charging Infrastructure 3.2.3 Importance of Creating Charging Infrastructure 3.2.4 Standards and Codes of Electric Vehicle Charging Infrastructure 3.2.5 Charging Stands 3.3 Value Chain Analysis 3.4 Porter's Five Forces Model 3.4.1 Supplier Power 3.4.2 Buyer Power 3.4.3 Threat of New Entrants 3.4.4 Threat of Substitute 3.4.5 Competitive Rivalry 3.5 Impact of COVID-19 and the Ukraine-Russia War on the Global Market 3.5.1 COVID-19 Impact 3.5.2 Impact of the Russia-Ukraine War Chapter 4 Market Dynamics 4.1 Key Market Drivers 4.1.1 Increase in the Global Demand for Electric Vehicles

4.1.2 Tax Incentives and Regulatory Assistance for Plug-In Hybrid Electric Vehicles 4.1.3 Government Funding and Incentives Expected to Assist Electric Vehicle Charging Infrastructure 4.1.4 Lowering the Cost of EV Batteries on the Global Market to Increase EV and EVC Demand. 4.2 Market Restraints 4.2.1 High Capital Cost for Electric Vehicles Compared to the Conventional ICE Vehicles 4.2.2 Inadequate Electric Vehicle Charging Infrastructure 4.3 Key Challenges 4.3.1 Stringent Guidelines for Installation of EV Charging Stations 4.3.2 Limited Battery Capacity in Electric Vehicles 4.3.3 Lithium Less Readily Available for Use in Electric Vehicle Batteries 4.4 Market Opportunities 4.4.1 Strict Emission Regulations Creating a Market for Electric Vehicle Sales 4.4.2 Government Efforts Relating to Electric Vehicles 4.4.3 Government Support for Public Transportation Electrification 4.5 Future Trends 4.5.1 Autonomous Charging 4.5.2 Three-Dimensional EV Printing 4.5.3 V2G EV Charging Stations 4.5.4 Wireless and Inductive Charging Chapter 5 Market Breakdown by Charging Type 5.1 Overview 5.2 AC Charger Level 1 5.3 AC Charger Level 2 5.4 DC Fast Charging Chapter 6 Market Breakdown by Installation Type 6.1 Overview 6.2 Public Charging Outlets 6.3 Private Charging Outlets Chapter 7 Market Breakdown by Charging Infrastructure Type 7.1 Overview 7.2 Type 2 7.3 GB/T 7.3.1 AC Charging 7.3.2 DC Fast Charging 7.4 CCS 7.5 CHAdeMO 7.6 Others 7.6.1 SAE J1772 7.6.2 Tesla Supercharger Chapter 8 Market Breakdown by Charging Service 8.1 Overview 8.2 EV Charging Service 8.2.1 Benefits 8.2.2 Charging as a Service 8.2.3 Responsibilities of EV CaaS Provider 8.3 Battery Swapping Service 8.3.1 Battery Swapping Types

Chapter 9 Market Breakdown by Region 9.1 Overview 9.2 North America 9.2.1 U.S. 9.2.1 Canada 9.2.1 Mexico 9.3 Europe 9.3.1 The Netherlands 9.3.2 France 9.3.3 Germany 9.3.4 U.K. 9.3.5 Italy 9.3.6 Rest of Europe 9.4 Asia-Pacific 9.4.1 China 9.4.2 Japan 9.4.3 South Korea 9.4.4 India 9.4.5 Rest of Asia-Pacific 9.5 Rest of the World 9.5.1 South America 9.5.2 Middle East and Africa Chapter 10 Patent Analysis 10.1 Patent Analysis Chapter 11 Competitive Landscape 11.1 Overview 11.2 Key Market Developments 11.3 Ongoing Innovations in EV Charging 11.4 Wireless Electric Vehicle Charging 11.4.1 Charging of Mobile Devices 11.4.2 Lightning-Fast Charging 11.4.3 Advancements in Battery Technology 11.5 Innovations in Battery Technologies 11.5.1 Lithium-Ion Batteries 11.5.2 Batteries with Solid-State Technology 11.5.3 Aluminum-Ion Rechargeable Batteries 11.5.4 Batteries Made of Lithium-Sulfur 11.5.5 Batteries Made of Metal and Air **Chapter 12 Company Profiles** 12.1 Introduction ABB GROUP **BEAM GLOBAL** BLINK CHARGING CO. **BP PULSE** CHARGEPOINT INC. CLIPPERCREEK INC. (SUBSIDIARY OF ENPHASE ENERGY) EATON

ELECTRIFY AMERICA LLC ENGIE S.A. FORTUM LEVITON ROBERT BOSCH GMBH SCHNEIDER ELECTRIC SE SEMACONNECT SHELL PLC SIEMENS AG TESLA MOTORS WEBASTO GROUP



Electric Vehicle Charging: Infrastructure and Global Markets

Market Research Report | 2022-10-20 | 151 pages | BCC Research

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	\$5500.00
	2-5 Users License	\$6600.00
	Site License	\$7920.00
	Enterprise License	\$9504.00
	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

Scotts International. EU Vat number: PL 6772247784 tel. 0048 603 394 346 e-mail: support@scotts-international.com