

Bidirectional Vehicle-To-Home (V2H) Communication Market Trends and Analysis by Application, Segment Forecast to 2029

*The Business Research Company's
Bidirectional Vehicle-To-Home (V2H)
Communication Global Market Report
2025 – Market Size, Trends, And Global
Forecast 2025-2034*

LONDON, GREATER LONDON, UNITED
KINGDOM, October 24, 2025

/EINPresswire.com/ -- What Is The

Estimated Industry Size Of Bidirectional Vehicle-To-Home (V2H) Communication Market?

The market size for the bidirectional vehicle-to-home (V2H) communication has witnessed a significant expansion in the past few years. The market, valued at \$1.16 billion in 2024, is expected to surge to \$1.43 billion by 2025, with a Compound Annual Growth Rate (CAGR) of



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23.3%. This impressive growth during the past period is due to several contributing factors, including the growing popularity of electric vehicles, increased awareness about integrating renewable energy, government incentives favoring electric vehicle infrastructure, the rapid expansion of smart grid deployment, and the prioritization of household energy resilience.

Over the coming years, the market for bidirectional vehicle-to-home (V2H) communication is anticipated to experience significant growth, reaching \$3.27 billion by

2029 with a compound annual growth rate (CAGR) of 23.0%. This growth within the estimated period can be attributed to factors such as increasing need for vehicle-to-home backup power, a rising inclination towards energy cost savings among consumers, expanded usage of bidirectional chargers, growth in residential solar installations, as well as heightened concerns around grid stability and a reliance on renewable energy resources. The period underforecast sees emerging trends such as advancements in bidirectional charging technology, innovative progress in the field of smart energy management systems, the creation of vehicle-to-everything communication norms, progress in grid-interactive home technologies, and the evolution of

wireless bidirectional charging technologies.

Download a free sample of the bidirectional vehicle-to-home (v2h) communication market report:

<https://www.thebusinessresearchcompany.com/sample.aspx?id=28549&type=smp>

What Are The Major Factors Driving The [Bidirectional Vehicle-To-Home \(V2H\) Communication Global Market Growth](#)?

Electric vehicles (EVs) are becoming increasingly popular since they rely thoroughly on rechargeable batteries instead of internal combustion engines. Rising EV adoption is stimulated by breakthroughs in battery technology that have amplified driving ranges, cut charging times, and decreased costs, making them more useful for everyday use. EVs benefit from bidirectional vehicle-to-home (V2H) communication by drawing power from and supplying energy to homes, promoting energy management, backup power, cost reefers, and the incorporation of renewable energy. For example, from June 2024 to June 2025, the European Union market share held by battery-powered cars rose from 12.5% to 15.6% according to the Belgium-based European Automobile Manufacturers Association. Hence, the growing popularity of EVs is spurring the expansion of the [bidirectional vehicle-to-home \(V2H\) communication market](#).

Who Are The Leading Companies In The Bidirectional Vehicle-To-Home (V2H) Communication Market?

Major players in the Bidirectional Vehicle-To-Home (V2H) Communication Global Market Report 2025 include:

- Volkswagen Aktiengesellschaft
- Toyota Motor Corporation
- General Motors Company
- Bayerische Motoren Werke Aktiengesellschaft
- Honda Motor Co. Ltd.
- Tesla Inc.
- Siemens Aktiengesellschaft
- Nissan Motor Co. Ltd.
- Hitachi Ltd.
- Groupe Renault

What Are The Key [Trends Shaping The Bidirectional Vehicle-To-Home \(V2H\) Communication Industry](#)?

Leading entities in the bidirectional vehicle-to-home (V2H) communication sector are prioritizing the creation of sophisticated technologies such as bidirectional vehicle-to-home (V2H) charging systems. These systems aim to boost energy conservation, facilitate effective energy coordination, reinforce grid stability, and offer homeowners trustworthy backup power solutions. Bi-directional vehicle-to-home (V2H) charging systems allow electric vehicles to both receive and distribute electricity to a home, serving as an energy management and backup power source. For instance, Volkswagen, a Germany-based car company, unveiled a bi-

directional Vehicle-to-Home (V2H) charging system for its ID. series of electric vehicles in April 2024. This innovation makes EVs function as movable batteries, delivering stored energy back to homes when required, together with solar panels and home batteries for energy management. This feature can power an average household for about two days and aims to lower energy expenses while promoting the usage of renewable energy at home. Presently, the system is undergoing trials with home energy management partners in Sweden; this marks a step towards incorporating vehicle-to-grid abilities for wider energy grid assistance in the future.

What Are The Primary Segments Covered In The Global Bidirectional Vehicle-To-Home (V2H) Communication Market Report?

The bidirectional vehicle-to-home (V2H) communication market covered in this report is segmented as

- 1) By Component: Hardware, Software, Services
- 2) By Vehicle Type: Battery Electric Vehicles, Plug-In Hybrid Electric Vehicles
- 3) By Power Rating: Up To 10 Kw, 10–50 Kw, Above 50 Kw
- 4) By Technology: Wired, Wireless
- 5) By Application: Residential, Commercial, Industrial

Subsegments:

- 1) By Hardware: Inverter, Battery Storage System, Charging Station, Energy Management Controller
- 2) By Software: Monitoring Software, Control Software, Optimization Software, Security Software
- 3) By Services: Installation Services, Maintenance Services, Consulting Services, Training Services

View the full bidirectional vehicle-to-home (v2h) communication market report:

<https://www.thebusinessresearchcompany.com/report/bidirectional-vehicle-to-home-v2h-communication-global-market-report>

Which Region Is Forecasted To Grow The Fastest In The Bidirectional Vehicle-To-Home (V2H) Communication Industry?

In 2024, North America held the predominant position in the global market for bidirectional vehicle-to-home (V2H) communication. The regions examined in the bidirectional vehicle-to-home (V2H) communication report include Asia-Pacific, Western Europe, Eastern Europe, South America, the Middle East, and Africa alongside North America.

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