

## **Japan Electric Vehicle Charging Equipment - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts 2019 - 2029**

Market Report | 2024-02-17 | 70 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 Japan Electric Vehicle Charging Equipment Market size is estimated at USD 0.52 billion in 2024, and is expected to reach USD 1.27 billion by 2029, growing at a CAGR of 19.78% during the forecast period (2024-2029).

The outbreak of COVID-19 has negatively impacted the market. The sales of electric vehicles in the country were hampered, and the market share of electric vehicles is very low. The major reason for the low sales during the year was the strict lockdown measures as economic activities were stopped for a long time. In March 2020, it was recorded that the number of charging stations in the country reduced by around 1,087 to 29,233 charging stations. The reason for the reduction in charging stations is that electric vehicles account for only one percent of the new cars sold in Japan because the charging stands are not being used very much. Some of them are outdated, and others have been removed.

The high number of plug-in hybrids and the growing demand for battery electric vehicles and their usage in the country significantly boosted the demand for electric vehicle charging stations and increased market opportunities for the industry. Further, number of stations has been growing steadily in Japan since fiscal 2010. In 2010, there were around 310 charging stations in the country, which increased to more than 30,000 stations in 2021.

Major subsidies offered by the country's government to promote the use of electric vehicles, as an effort to become carbon neutral by 2050, led to subsidizing the charging stations in the country. This is likely to drive the market's growth during the forecast period. The Japanese government is boosting the sales of green fuel vehicles and has an ambitious plan that all the new vehicles sold by 2035 will be powered by electricity, both electric and hybrid electric vehicles. This will enhance electric vehicle charging equipment demand during the forecast period.

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: [support@scott-international.com](mailto:support@scott-international.com)

[www.scott-international.com](http://www.scott-international.com)

### Government Initiatives to Boost Electric Vehicle Sales to Have Positive Impact on the Market

Surging carbon emission by the transportation sector has propelled the environmental concern across Japan, which is scrutinized by Japan government by encouraging the adoption of electric vehicles, i.e., HEVs, PHEVs, and BEVs. With this, the number of electric vehicles on the road is constantly increasing, which is likely to drive the demand for associated charging infrastructure.

The five largest passenger car market includes China, the United States, Germany, India, and Japan. Along with several other countries across the world, Japan has committed to net zero-emission passenger car sales. In December 2020, Japan government introduced a green growth strategy to make Japan carbon neutral by 2050 by promoting electric vehicles, fuel cell electric vehicles, plug-in hybrid vehicles, and hybrid vehicles.

With these implementations, Japan seeks to reduce the emission impact from the transportation sector to achieve the GHG (Green House Gas) reduction goals under the Paris agreement. The concentration of charging stations in Japan is quite less compared to other developed countries, indicating massive growth potential in the coming years. For instance, in 2021, Japan had only 1.7 charging stations per 100 km of roadways, whereas South Korea had around 75.2. In 2020, Japan had a total of 29,855 charging stations (21,916 slow chargers and 7,939 fast chargers). Although, Japan accounts for the second position in charging technology patents across the world, with more than 1,310 patent filings.

Japan has long-term goals and strategies for the automotive industry to beat climate change and minimize carbon emissions. For the next half-decade, the government has set three key actions to promote the electric vehicle, including innovations, Policies, and investment in infrastructure. Promotion for innovation, developing lithium-ion batteries, building economic procurement channels, and developing next-generation technologies.

Through policies, the country is focusing on robust the global supply chain, incorporating international electrification policies, and maximizing the fuel standards. In Infrastructural development, the primary focus would be building a battery network by stabilizing the battery components procurement, establishing a guideline for used batteries to reuse/recycle, and investing in research and development of wireless charging infrastructures. In November 2021, Japan government announced to double their incentives for electric vehicles to 800,000 Yen per vehicle and subsidizes charging infrastructure to catch up with matured economies, including North America and Europe.

### High Cost of Installation and Maintenance Expected to Hinder Market growth

The cost of setting up an EV charging station is quite high and varies according to the type of chargers being installed. In order to set up the EV charging infrastructure, minimum infrastructure requirements need to be fulfilled, and finding the right vendor and location is important. The charging infrastructure costs include fixed (installation, utility service, transformers, and equipment) and variable (electricity charges) components.

For chargers on commercial electricity tariffs, demand charges can dominate operating costs. As a result, the total cost of power from fast-charging stations is higher than slower residential chargers unless the former can achieve sufficiently high utilization rates.

At current levels of utilization, commercial chargers are almost universally not economically profitable. A significant, sustained increase in demand will be needed for commercial charging infrastructure to deliver financial returns and compete with IC engines.

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: [support@scotts-international.com](mailto:support@scotts-international.com)

[www.scotts-international.com](http://www.scotts-international.com)

The high concentration of EV home charging during peak periods can overload local transformers. Utilities may have to procure additional peak capacities unless they are able to shift demand to off-peak periods.

There are three types of chargers available for EVs. The standard 120V plug, often used for home appliances, charges slowly but can fill a battery to near-full capacity in about 8 to 12 hours. The 240V level-2 chargers generally provide 20 to 25 miles of charge in an hour, which shortens charging time to eight hours or less. In homes, level-2 chargers can use the same outlet type required for clothes dryers or electric ovens. Level-3 direct current (DC) fast chargers can charge a battery up to 80% in 30 minutes.

Different auto manufacturers use three different varieties of DC fast chargers. Most manufacturers use the SAE Combined Charging System (CCS), the CHAdeMO variant is used by Nissan and Mitsubishi, and the Tesla Supercharger is used by only Tesla cars. This lack of vehicle compatibility restricts universal vehicle access to charging stations and could hinder market growth.

Deploying high-powered energy chargers must be done carefully to ensure stations have high utilization. The profit potential of charging stations is quite low in the current scenario. The profitability may only increase when there are enough electric cars on the road, so the infrastructure could have a high utilization rate. Consumer preference is more leaned toward hybrid vehicles, which significantly restraints the sales of BEVs; for instance, the sales of BEVs in 2020 was 14,604 units, whereas hybrid vehicles have surpassed the sales volume of 1,324,800 units during the same tenure.

### Japan EV Charging Stations Industry Overview

The Electric vehicle charging station market is relatively consolidated, with a major market share being covered by a few companies. Some major players in the market are ABB, Delta Electronics Inc., Toyota, and others. The major players in the country are entering into joint ventures with other players to develop the latest technology. Various automakers are also providing home charging solutions to their customers along with electric vehicles. For instance,

- In November 2021, Subaru Corp unveiled its first all-electric vehicle (EV), the Solterra which takes almost 13 hours to fully charge from zero to 100 percent with the residential charger. However, Solterra also get an 80% charge in under an hour from a Level 3 DC fast charger giving out an estimated range to be greater than 320 km. </li>
- In October 2021, Toyota Motor Corporation announced the details of bZ4X, its all-new model BEV (Battery Electric Vehicle). The bZ4X, a medium-segment SUV-type BEV, is the first model in the Toyota bZ series. The model adopts a BEV-dedicated platform jointly developed with Subaru Corporation. With provided home wall mount charger, car can reach full recharge in 10 hours. </li>

#### Additional Benefits:

- The market estimate (ME) sheet in Excel format </li>
- 3 months of analyst support </li>

#### **Table of Contents:**

##### 1 INTRODUCTION

###### 1.1 Study Assumptions

###### 1.2 Scope of the Study

##### 2 RESEARCH METHODOLOGY

##### 3 EXECUTIVE SUMMARY

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

## 4 MARKET DYNAMICS

### 4.1 Market Drivers

### 4.2 Market Restraints

### 4.3 Porter's Five Forces Analysis

#### 4.3.1 Threat of New Entrants

#### 4.3.2 Bargaining Power of Buyers/Consumers

#### 4.3.3 Bargaining Power of Suppliers

#### 4.3.4 Threat of Substitute Products

#### 4.3.5 Intensity of Competitive Rivalry

## 5 MARKET SEGMENTATION

### 5.1 End Use

#### 5.1.1 Home Charging

#### 5.1.2 Public Charging

### 5.2 Charging Station

#### 5.2.1 AC Charging Station

#### 5.2.2 DC Charging Station

## 6 COMPETITIVE LANDSCAPE

### 6.1 Vendor Market Share

### 6.2 Company Profiles\*

#### 6.2.1 ABB Ltd

#### 6.2.2 Delta Electronics Inc.

#### 6.2.3 e-Mobility Power Inc.

#### 6.2.4 Toyota Connected Corporation

#### 6.2.5 Tesla Inc.

#### 6.2.6 Aoyama Elevator Global Ltd

#### 6.2.7 Tritium Charging

#### 6.2.8 NEC Telecommunication and Information Technology Ltd

## 7 MARKET OPPORTUNITIES AND FUTURE TRENDS

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

**Japan Electric Vehicle Charging Equipment - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts 2019 - 2029**

Market Report | 2024-02-17 | 70 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*        | <input type="text"/> | Phone*                        | <input type="text"/>                    |
| First Name*   | <input type="text"/> | Last Name*                    | <input type="text"/>                    |
| Job title*    | <input type="text"/> |                               |   |
| Company Name* | <input type="text"/> | EU Vat / Tax ID / NIP number* | <input type="text"/>                    |
| Address*      | <input type="text"/> | City*                         | <input type="text"/>                    |
| Zip Code*     | <input type="text"/> | Country*                      | <input type="text"/>                    |
|               |                      | Date                          | <input type="text" value="2026-02-28"/> |
|               |                      | Signature                     |   |

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

