

# 美德日多国加快充电设施建设

USA, GERMANY, JAPAN HAVE ALLIED TO SPEED UP THE CONSTRUCTION OF CHARGING FACILITIES

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电动汽车与充电设施是“鸡”与“蛋”的关系，孰先孰后，不是理论问题，而是实践问题。如今，各国都正在加快充电设施的建设，届时成熟的充电网络会反过来推动电动车销量的更快增长。

## 美国电动车充电站进入高速发展期

进入洛杉矶市中心一座多层停车场，你会惊奇地发现每层都为电动车提供了专门的泊车空间。仔细观察，每部电动车的停车位上都配置了充电装置，以方便车主利用停车时间为电动车补充电能。

2011年，美国电动车充电站进入了高速发展时期。年初，美国和加拿大的充电站数量还只有2000多个，而今已经突破了2.6万个，增长了10倍以上。目前，美国市场上存在着“充电点”（ChargePoint）、“查基特”（CharJit）、“布林肯”（Blink）等多家电动车充电站网络运营商，充分

Electric vehicles and charging infrastructure is the relationship of "chicken" and "eggs", It was not a theory problem, but the practical problem for what's the first. Today, all countries are accelerating the construction of the charging infrastructure, the mature charging network will in turn push the sales in a faster growth of electric vehicle.

## The United States Electric Vehicle Charging Stations are Entering into Overdrive Development Stage

A multi-story car park in downtown Los Angeles, you will be surprised to find that each floor has provided a special parking space for electric vehicle. Looking carefully, every electric vehicle parking space has equipped with the charging device, to facilitate the owner use parking time to replenish the electric power.

In 2011, the electric vehicle charging station entered into a period of rapid development. The number of charging stations in USA and Canada only have 2000 at the early of the year, by now that had already broke through 26000 stations, increased by more than 10 times. Currently, there is a "charge" (ChargePoint), "chuckie" (CharJit), "brinker" (Blink), and other electric vehicle charging station network operators in the USA market, fully market competition make the charging station network distribution is reasonable, service quality is also improved. Not long ago, the number of "charge point" of a company in the United States is more than the McDonald's stores.



的市场竞争使充电站网点分布日趋合理，服务品质也在不断提升。不久前，“充电点”一家公司在全美的充电站数量，便已超过了麦当劳的门店数量。

在美国，汽车加油站尤其是高速公路旁的加油站周边，往往会形成一个云集餐饮、零售、旅馆、汽车维修等各种服务的商业圈。随着电动车充电站数量的增长，充电站的商业聚合能力不容小觑。

美国电动车充电站数量快速增加的根本原因，在于美国是全球最大的电动车市场。2013年，美国油电混合动力车的销量接近10万辆，比上一年大幅提升了80.9%。预测认为，美国的充电站在2015年便可达到饱和状态。

## 德国2020年电动汽车将达100万辆

德国政府2009年就推出计划，宣布到2020年使德国的电动汽车保有量达到100万辆。德国目前约有1.3万-1.5万辆电动车，其中柏林约有1300辆。德国目标与现实的反差表明，发展电动汽车依旧面临着巨大挑战，特别是在充电基础设施方面。



In the United States, the filling station especially around the highway gas stations, tend to form a food and beverage, retail, hotel, vehicle maintenance and repair all kinds of services such as business circle. With the increase number of the electric vehicle charging station, charging station business polymerization power is to be reckoned with. The root cause of the fast rising number of electric vehicle charging stations in the United States, is that the United States is the world's largest electric vehicle market. In 2013, the United States petrol-electric hybrid sales was closed to 100000 vehicles, soared 80.9% on the previous year. It is predict that in the United States charging station can reach to saturation state in 2015.

### Germany Will Reach to 1 Million Electric Vehicles in 2020

Germany government had issued the plan in 2009, announced the Germany electric vehicle ownership will be reached to 1 million vehicles in 2020. Germany has about 13000-15000 electric vehicles, including about 1300 in Berlin. The contrast of target and reality in German had shown that the development of electric vehicle still face huge challenges, especially in the case of charging infrastructure.

In order to solve the problem of insufficient charging infrastructure, the German government has cooperated with manufacturers, had set up demonstration projects in eight cities across the country, had built 2000 charging piles. Also set up some highway charging stations. For example the highway from the southern city of Munich to the eastern of Leipzig, has built eight stations, there is a charging pile in every half an hour's drive.

In addition to the launch of pilot cities and pilot areas, Germany has promoted the electric vehicle by forming a team. Composed the electric vehicle and traditional energy vehicles transportation team, now it has shown the economic advantage. The team is mainly used for local delivery of the goods transportation, daily range is relatively fixed, it will be not running more than the allowing battery. Stuttgart, Berlin and other cities in Germany have also chosen electric vehicles for car sharing program. This sharing rental of electric vehicle is cheap, expenses for 20-30 euro cents per minute. It will be built 750000 charging points, of which are about 400000 for home charging points by 2020.

Avoiding to make strategic mistakes, the direction for the future of electric vehicle need comprehensive inspection. Battery increase routine motor of the new hybrid electric vehicle, could be in line with the current Germany choice for electric vehicle development.

为了解决充电基础设施不足的问题，德国政府同汽车厂商合作，在全国8个城市区开设示范项目，共建成2000个充电桩。一些高速公路上也设立了充电站。比如从南部城市慕尼黑到东部莱比锡的高速公路上，已经建成8个充电站，平均每隔半小时车程就有一个。

除推出试点城市和试点地区以外，德国还以车队的形式推广电动汽车。由电动汽车组成的运输车队与由传统的能源汽车组成运输车队相比，目前已经显示出经济优势。这些车队主要用于本地货物的配送运输，每天的行驶里程较固定，不会超过电池允许的范围。德国斯图加特、柏林等一些城市的汽车共享项目也选择电动汽车。这种共享出租的电动汽车价钱便宜，每分钟费用为20—30欧分。预计到2020年，将建成75万个充电点，其中40万个左右为家用充电点。

电动汽车未来的发展方向需要全面考察，避免犯战略性错误。电池加增程发动机的新型混合动力汽车，可能是符合当前德国电动汽车发展状况的选择。

## 日本设置特色快速充电设备

日本设置快速充电设备很有特色。日本经济产业省2012年拿出1005亿日元的经费，用于加快电动汽车充电设施的普及，力争在2020年前建成200万个普通充电器和5000个快速充电站。普通家庭或企业申请建设充电设备，最多可获得相当于充电器和建设费2/3的政府补贴，其余部分则由汽车公司承担，用户实际上不需要出资。

日产汽车、住友商事、日本电气等共同出资成立电网点公司，并与全家便利连锁店、东日本高速道路、成田机场等合作，在东京地区的汽车销售店、便利店、停车场、加油站、高速公路服务区等公共区域设置快速充电设备，一次充电30分钟收费约400日元。为了方便电动汽车用户就近找到充电站，日本还开通了全国充电站地图搜索网站，用户可以随时上网添加最新信息，交流电动车行驶心得。

日本电动汽车充电站的建设还是落后于计划。据统计，至今年3月，日本全国约建成10万个充电器，其中快速充电器约4万个，普通充电器约6万个，仅为计划的一成左右。电动汽车总量少，充电站收入有限造成了运营商的困难。

## Japan Has Set Up the Fast Charging Equipment

Japan has set up the fast charging equipment has distinguishing features. The Ministry of Economy had spent 100.5 billion yen in 2012, and used to speed up the popularization of electric vehicle charging infrastructure, and try to build up 2 million ordinary chargers 5000 fast charging stations in 2020. Ordinary households or firms had applied for building charging equipment, can get up to two-thirds of government subsidies equivalent of charger and construction fee, the rest is borne by the car companies, users don't need to pay actually.

Nissan, Sumitomo, NEC had jointly funded the charging network company, and had cooperated with convenient family chain, east Japan highway, Narita airport, in Tokyo area car dealerships, convenience stores, parking lots, gas stations, public areas such as highway service area will be set fast charging equipment, a single charge fee is about 400 yen for 30 minutes. For the convenience of the electric vehicle users find the charging station nearby, Japan had also launched a charging station map search sites across the country, the users can add new information online at any time, share their experiences in driving electric vehicles.

Japan's electric vehicle charging station construction is behind schedule. According to statistics, in March of this year, Japan had built about 100000 chargers around the country, about 40000 quick chargers, about 60000 ordinary chargers, it is only about ten percent of the plan. Less total quantity of electric vehicle, charging station limited incomes had caused difficulties for operators.





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