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 with innovation and disruption—
 preparing for the future

QUESTION N° : 2 What policies
 are driving innovation across
 different jurisdictions when it
 comes to tariffs, DERs, EVs etc.,
 in markets and how can they be
 enhanced to drive more adoption
 across the board

When it comes to electric vehicles, one of the urgent issues for their widespread introduction is the development of electric charging infrastructure in the country (along with its own production of electric vehicles and subsidizing their purchase). That is why in the directions of state policy in France, Germany, China, designed to stimulate the transition to electric vehicles, you can also see the development of charging infrastructure.

Table 1. The direction and volume of funds allocated to stimulate the transition to electric vehicles in Germany, France and China

Country	The amount of funds allocated in 2020	Direction of allocation of funds
France	8 billion euros	Stimulating the transition to electric vehicles
Germany	5.6 billion euros	Support for the automotive sector, including the creation of charging station infrastructure
China	0.34 billion euro	Creation of 78 thousand charging stations from 2020 to 2022

Source: according to <http://www.aluminas.ru/upload/iblock/3bf/Rynok-elektrotransporta.pdf>

For example, Germany plans to install a charging station for electric vehicles at every gas station in the country. In addition to the direction of development among countries, the goal for the development of charging infrastructure is set by companies such as BP, where the growth of charging infrastructure in 10 years is planned to increase from 7.5 thousand units to 70 thousand units, Total plans to install 150 thousand charging stations in Europe by 2025.

Table 2. Plans for the development of charging infrastructure

Company	Period	Plans for the development of charging infrastructure
BP	10 years	Increase from 7.5 thousand units to 70 thousand units
Total	5 years	Increase to 150 thousand charging stations in Europe

The creation of charging infrastructure in many countries is carried out with the support of the state. It is worth highlighting the following instruments of state support.

Table 3. Direction of state support by country:

Country	Tools to support the development of charging and network infrastructure by the state
China	<ul style="list-style-type: none"> ➤ Grants to city authorities ➤ Public-private partnership ➤ Programs of electric grid companies
USA	<ul style="list-style-type: none"> ➤ Grants to city authorities ➤ Public-private partnership
Norway	<ul style="list-style-type: none"> ➤ Subsidies/tenders for financing infrastructure construction by municipalities
Netherlands	<ul style="list-style-type: none"> ➤ Subsidies for financing regional and city programs for the development of charging infrastructure
France	<ul style="list-style-type: none"> ➤ Grants for municipalities to install charging stations

Infrastructure is also being created in Russia (table 4).

Table 4. Plans for the development of charging infrastructure in Russia

Company	Period	Plans for the development of charging infrastructure
PJSC Rosseti	2 years	Increase by 600 units in Moscow Increase to 528 in 8 pilot territories
Rushydro Group	2 years	Increase to 150 units of charging stations (mainly in the Far Eastern Federal District)

Taking into account the global average of 1 charging station for 10 electric vehicles and Russia's plan for the development of electric vehicles up to 50 thousand units by 2025, we assume the necessary amount of creation of electric charging stations by 2025. Since the current volume of electric charging stations totals about 1 thousand units, the required volume of creation is about 4 thousand charging stations and is not covered by the current plans for the creation of electric charging infrastructure in the country.

At the moment, the planned amount of subsidies will create 528 fast charging stations. Subsidies is aimed at reimbursing part of the costs of purchasing equipment (for equipment - 60% of the actual costs incurred, for technological connection - 30%).

We believe that it is necessary to continue subsidizing the creation of charging stations. Without the provision of state support, a situation is possible in which the costs of creating charging stations will be imposed on the subjects of the electric power industry, which will ultimately lead to an increase in the tariff for electric energy. To develop a network of electric charging stations and at the same time prevent tariff increases, it is necessary:

- elaboration of the procedure for selecting charging stations at the planning stage of the creation of charging stations, which are supposed to participate in further subsidies. This is necessary to improve the efficiency of facilities for which subsidies are planned to be provided;
- development of other instruments of state support (public-private partnership, holding tenders for infrastructure financing, the use of initiative budgeting tools, grants).