

Regulatory landscape for electric mobility

Key strategies, acts, and statutory instruments



European level

Strategies

Directorate-General for Climate Action	EU 2030 climate & energy framework	Directorate-General for Mobility & Transport	Paris Agreement
Directorate-General for Mobility & Transport	White Paper on transport	European Commission	The European Green Deal

Regulations/Directives

Directorate-General for Mobility & Transport	AFI Directive – 2014/94/EU	DG for Internal Market, Industry, Entrepreneurship and SMEs	Regulation on the approval of motor vehicles – 2018/858/EU
Directorate-General for Climate Action	Regulation on fleet-wide CO₂ performance standards – 2019/631/EU	Directorate-General for Environment	Air Quality Directive – 2008/50/EG
Directorate-General for Energy & Transport	Renewable Energy Directive – 2009/28/EG Renewable Energy Directive II – 2018/2001/EU	Directorate-General for Mobility & Transport	Clean Vehicles Directive – 2019/1161/EU
Directorate-General for Energy	Directive on the energy performance of buildings – 2018/844/EU	Directorate-General for Energy & Transport	Driving Licence Directive – 2006/126/EG

Local authority level

Statutes/plans

Zoning plans & urban development contracts	Local transport plan
Green City master plan	Parking statutes
Climate change strategies	Regulations on permits and fees for special use of public roads
Air quality action plans	Traffic development plan

National level

Strategies

Federal Government	Climate Action Plan 2050	Federal Government	The Federal Government's Electric Mobility Programme
Federal Government	Climate Action Programme 2030	Federal Government, BMVI	Charging infrastructure master plan

Laws/regulations

BMU	Batteries Act (BattG)	BMWi	Energy Industry Act (EnWG)	BMWi	Charging Station Ordinance (LSV)	BMVI	German Road Traffic Regulations (StVO)
BMU	Federal Immission Control Act (BImSchG)	BMWi	Renewable Energy Sources Act (EEG)	BMWi	Metering Point Operation Act (MsbG)	BMVI	German Road Vehicles Registration and Licensing Regulations (StVZO)
BMU	Compulsory marking of charging points in accordance with the 10th Ordinance Implementing the Federal Immission Control Act (10th BImSchV)	BMU	Compensating the biofuels quota with power for electric vehicles within the framework of the 38th BImSchV	BMWi	Measures and Verification Act (MessEG)	BMF	Electricity Duty Act (StromStG)
BMU, BMVI	Car Sharing Act (CsgG)	BMVI	Driver Licensing Regulations (FeV)	BMWi	Low-Voltage Connection Ordinance (NAV)	BMF	Ordinance Implementing the Electricity Duty Act (StromStV)
BMF	Income Tax Act (EStG)	BMF	Motor Vehicle Tax Act (KraftStG)	BMVI	Road Traffic Act (StVG)	BMJV	German Civil Code/rent law
BMVI, BMU	Electric Mobility Act (EmoG)	BMWi	Price Indication Ordinance (PAngV)	BMVI	Fast Charging Act (SchnellIG)	BMJV	Apartment Ownership Act (WEG)
		BMWi		BMWi	Ordinance on Energy Consumption Labelling for Passenger Cars (Pkw-EnVKV)	BMJV	Electric Mobility Infrastructure in Buildings Act (GEIG)

Federal state level

Laws/regulations

Parking regulations	Climate change legislation	Federal State Regional Development Plans	Local public transport legislation
University and vocational school regulations	Federal state building regulations	Mobility legislation	Roads legislation

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European level

EU 2030 climate & energy framework

In its Communication of 22 January 2014, the European Commission set out a policy framework for climate and energy in the period from 2020-2030. The Communication states that by 2030, greenhouse gas emissions across sectors are to be reduced by 40%, compared with 1990 levels. Electric mobility is one of the measures necessary to achieve this.

White Paper on transport

In 2011, the European Commission presented its White Paper on transport, the 'Roadmap to a Single European Transport Area'. The European Commission's objective is to work towards a competitive and resource-efficient transport system. In the White Paper, the European Commission outlines numerous measures, some of which pertain to electric mobility, its promotion and implementation.

AFI Directive – 2014/94/EU

The Directive of 22 October 2014 contains provisions on the deployment of alternative fuels infrastructure (AFI). It contains technical specifications as well as operational requirements, for example concerning payment processes. In addition, a National Policy Framework for the commercialization of alternative fuels is to be developed in accordance with the Directive. The Directive was transposed into German law with the Charging Post Regulations, which contain binding provisions on publicly accessible charging infrastructure. After several amendments in 2018 and an evaluation in 2021, the Directive is to be updated comprehensively.

Regulation on fleet-wide CO₂ performance standards – 2019/631/EU

The new EU Regulation setting CO₂ emission performance standards for new passenger cars and light commercial vehicles has been in force since 1 January 2020 and replaced previous provisions. From 1 January 2021 until 2035, the Regulation establishes the currently applicable fleet-wide CO₂ emission standards, which have to be reduced gradually until 2035, as well as penalties for excess emissions. This makes increasing electrification of drivetrains necessary and more attractive.

Renewable Energy Directive – 2009/28/EG Renewable Energy Directive II – 2018/2001/EU

The Renewable Energy Directive 2009/28/EC provides, among other things, for a 10 percent share of gross final energy consumption of the transport sector to be met by energy from renewable sources by 2020. According to the whereas clauses of the Directive, the promotion of electric mobility is an important instrument serving this purpose. The Renewable Energy Directive ceased to be in force on 1 July 2021. It is followed by Directive 2018/2001/EU (Renewable Energy Directive II), which was to be transposed into national law on 30 June 2021 and which stipulates that Member States oblige fuel suppliers to ensure that the share of renewable energy within the final consumption of energy in the transport sector is at least 14% by 2030.

Directive on the energy performance of buildings – 2018/844/EU

The Directive is to reduce the amount of energy needed to meet the energy demand associated with typical use of that building. Moreover, the buildings sector is to decarbonise the transport sector through the amendment of national construction regulations thereby facilitating the construction of necessary infrastructure for smart charging of electric vehicles at residential and non-residential buildings. The Directive was transposed into national law with the entry into force of the Electric Mobility Infrastructure in Buildings Act (GEIG).

Paris Agreement

On 12 December 2015, the European Union and the Federal Republic of Germany, within the framework of the Paris Agreement, undertook to limit global warming to 2 degrees Celsius as compared with pre-industrial levels. The Agreement was transposed with the Act on the Paris Agreement (Federal Law Gazette, 2016 II, pp. 1082). The targets included in the Agreement necessitate the electrification of transport sector.

The European Green Deal

With its European Green Deal, the EU has set itself the objective of making Europe the world's first climate-neutral continent by 2050. In the transport sector, air pollutant emission limits are to be tightened for vehicles with internal combustion engines and alternative fuels are to be supported by paving the way towards zero emission mobility and in particular by significantly expanding the charging post infrastructure to meet the objectives of the European Green Deal.

Regulation on the approval of motor vehicles – 2018/858/EU

The Regulation contains the relevant technical requirements for the issuance of type approvals for motor vehicles. It replaced Framework Directive 2007/46/EC, which was applicable until 1 September 2020.

Air Quality Directive – 2008/50/EG

The European Air Quality Directive established concrete limit values for pollutants, which must not be exceeded. In the case of exceedance, the Directive further regulates that air quality action plans with remedial measures must be prepared. The Directive was transposed in Germany with the Federal Immission Control Act. The plans often include measures for the promotion of electric mobility.

Clean Vehicles Directive – 2019/1161/EU

The objective of the Directive is to promote the procurement of low- and zero-emission road vehicles in public procurement tenders. Besides purchasing vehicles, it now includes also options such as leasing, rent or hire-purchase. Procurement entities are to take into account energy efficiency and environmental impact when procuring new road vehicles. The Directive was transposed into national law in the German national procurement regulations.

Driving Licence Directive – 2006/126/EG

The European Driving Licence Directive lays down driving licence categories, among other things, as well as issues of qualification and driving theory tests. In accordance with the Directive, drivers are allowed to operate motor vehicles of up to 4.25 tonnes with a driver licence for passenger cars, if certain conditions are met. The Directive was transposed in Germany into the German Driver Licensing Regulations.

Local authority level

Zoning plans and urban development contracts

The local authority fleshes out its urban development and planning within the framework of zoning plans (generally binding statutes) and urban development contracts (individual contracts). These documents contain different provisions stipulating the type and scope of structural use for specific areas, which can also contain electric mobility requirements, in particular concerning the erection of charging infrastructure.

Green City master plan

At the 'National Diesel Forum' the decision was made that the Federal Government will support municipalities with high levels of nitrogen dioxide pollution in shaping sustainable and zero-emission mobility. To this end, 64 Green City Plans for air quality management have been prepared, which received funding as part of the '2017-2020 Immediate Action Programme for Clean Air'. One of the key measures of the master plans is the electrification of transport.

Climate change strategies

Since the Federal Government's 2008 National Climate Initiative, funding has been provided to municipal energy and climate protection strategies. These strategies identify specific measures of the municipalities for meeting climate change mitigation targets. The strategies are part of municipal environmental protection and pertain to electric and sustainable mobility.

Air quality action plans

Based on Section 47 of the Federal Immission Control Act – and implementing European Directives – an air quality action plan provides a proposal for specific measures towards improving the quality of air in a local community. These measures include restrictions of rail and road transport, for example bans on diesel vehicles or requirements for the promotion of zero-emission vehicles, in particular electric vehicles.

Local transport plan

On the basis of federal states' local public transport acts, municipalities or municipal planning associations adopt local transport plans, which shape local public transport in the relevant region. These plans contain projects and measures for the electrification of public transport.

Parking statutes

In parking statutes, which are based on the relevant federal state building regulations, municipalities can set out binding requirements for construction projects concerning the establishment of parking spaces, for example the granting of privileges to "electrified parking spaces".

Regulations on permits and fees for special use of public roads

Within the scope of regulations on permits and fees for special use of public roads, municipalities can control and standardise the granting of permits for special use of roads at municipal level. The operation of charging infrastructure in the public road environment constitutes a special use and requires permission.

Traffic development plan

In urban transport planning, the traffic development plan provides an overall concept for a 10-20-year planning period. The traffic development plan lays down objectives and strategies for developing and deploying road infrastructure and also contains requirements for electric mobility.

National level

Climate Action Plan 2050

By adopting the Climate Action Plan 2050 at the end of 2016, the Federal Government presented the long-term strategy addressing climate change, which was required in the Paris Agreement. By 2030, the transport sector is to reduce emissions by 40-42 percent compared with 1990 levels. This will require a high market penetration of electric mobility in road transport.

Climate Action Programme 2030

With its Climate Action Programme 2030, the Federal Government seeks to drive the transition to electric mobility. This is to be achieved by promoting the purchase of electric vehicles as well as deploying public or private charging infrastructure. Moreover, one million public charging points are to be installed by 2030.

Batteries Act (BattG)

The requirements of the European Batteries Directive are transposed with the Batteries Act. The objective is to ensure that waste batteries are disposed of in an environmentally friendly way. The Batteries Act contains requirements to be met by electric-vehicle batteries.

Renewable Energy Sources Act (EEG)

The Act is to promote the development of technologies for power generation from renewable sources and achieve cost reductions. The share of the power supply generated from renewable sources is to be increased.

Federal Immission Control Act (BImSchG)

The purpose of the Act is to protect humans, animals, plants, soil, water, atmosphere as well as cultural and other assets against harmful environmental impacts. This includes emissions from transport. The Act contains the obligation to reduce transport emissions by means of air quality action plans when limit values are exceeded within a municipality. One measure is the use of electric mobility.

Energy Industry Act (EnWG)

The Act defines the framework conditions for a safe, reasonably priced, consumer-friendly and environmentally sustainable supply of power and gas. In addition, the Act governs electricity and gas supply networks to guarantee effective and undistorted competition. The Act defines, among other things, operators of charging points as end consumers, thus ensuring that the downstream relationship with the vehicle user is not subject to strict regulation.

Compulsory marking of charging points in accordance with the 10th BImSchV

In accordance with the 10th Ordinance Implementing the Federal Immission Control Act, charging points must be marked with information on the connection established, the performance of the charging point as well as further information for consumers.

Charging Station Ordinance (LSV)

The provisions of EU Directive 2014/94/EU are transposed with the Charging Station Ordinance. It establishes binding requirements for the deployment and operation of publicly accessible charging infrastructure. This concerns in particular consumer needs and user friendliness, for example, by introducing a standard payment system.

Compensating the biofuels quota with power for electric vehicles within the 38th BImSchV

In accordance with the framework of the 38th BImSchV, in the future, electric power taken from the network to be used for road vehicles with electric drivetrains can be counted towards the greenhouse gas quota, in particular towards the share of biofuels, to achieve compliance.

Driver Licensing Regulations (FeV)

The Driver Licensing Regulations contain all relevant provisions for the operation of motor vehicles under driver licensing legislation. A transposition of European legislation, these Regulations define driving licence categories and contain special provisions for the operation of specific electric vehicles in road haulage, which have a higher weight due to alternative drivetrains - such as battery powered vehicles.

Car Sharing Act (CsgG)

The Car Sharing Act stipulates the granting of privileges to shared use vehicles to promote their use in order to reduce impacts of private motorized transport that are harmful to the climate and the environment. It contains provisions governing car sharing with electric vehicles.

Road Traffic Act (StVG)

The Road Traffic Act contains the legal conditions for road transport in Germany. It forms the basis for ordinances governing road transport. Since the Electric Mobility Act was adopted, it has been possible to take measures to grant privileges to electric vehicles in road transport.

Income Tax Act (EStG)

The Act governs the levying of income tax on earned income. It contains privileges and tax relief for granted benefits-in-kind when electric vehicles and charging infrastructure are used.

Motor Vehicle Tax Act (KraftStG)

This Act governs the tax to be paid for motor vehicles. It contains tax relief for electric vehicles from the motor vehicle tax.

Electric Mobility Act (EmoG)

The Act stipulates the granting of privileges for using electric vehicles on roads to promote their use in order to reduce impacts of private motorized transport that are harmful to the climate and the environment. The Act includes a definition of vehicles eligible under the provisions.

German Road Traffic Regulations (StVO)

The Regulations contain mandatory requirements for road transport. The implementation of the legislative proposal for the Electric Mobility Act also created scope for granting privileges to electric vehicles.

The Federal Government's Electric Mobility Programme

In May 2011, the Federal Government presented its Electric Mobility Programme. It includes the strategy for the development of electric mobility and the Federal Government's objectives in this area. The objective was to make Germany a lead market for and a leading provider of electric mobility by 2020.

Charging infrastructure master plan

The charging infrastructure master plan contains a comprehensive package of measures for the promotion and deployment of charging infrastructure in Germany. Support for private charging stations as well as amendments of rent and condominium law derive from the master plan.

German Road Vehicles Registration and Licensing Regulations (StVZO)

The Road Vehicles Registration and Licensing Regulations contain the relevant technical requirements for individual vehicle approvals by local approval authorities, particularly design and operating rules. They further include the obligation to carry out regular technical inspection of motor vehicles (main inspection).

Metering Point Operation Act (MsbG)

The Act governs in particular installation and operation of smart meters and how measured values are to be communicated within the energy sector. It contains sector-specific data protection rules for the energy sector including electric mobility.

Electricity Duty Act (StromStG)

The Act governs the taxation of electricity as well as reductions of taxes or tax relief if certain conditions are met. This also comprises electricity used by electric vehicles.

Measures and Verification Act (MessEG)

The Act contains requirements for the commercial supply of consumer goods. It also comprises the commercial supply of power – including power for electric vehicles.

Ordinance Implementing the Electricity Duty Act (StromStV)

This Ordinance fleshes out and implements legal provisions of the Electricity Duty Act. The Ordinance facilitates the paying of taxes on electricity purchased for electric vehicles.

Electric Mobility Infrastructure in Buildings Act (GEIG)

The Act advances the development of charging and cable infrastructure in the buildings sector. It lays down requirements for the future charging and cable infrastructure to be installed when new buildings are built or residential or non-residential buildings undergo major renovation.

Price Indication Ordinance (PAngV)

The objective of the Ordinance is to guarantee the 'price reflects cost' principle by providing correct and complete use information. It also aims to strengthen the position of consumers vis-à-vis the trade and industry, while at the same time improving overall competition by means of optimum price comparison opportunities. Section 3 of the Price Indication Ordinance (3 PAngV) also applies to power for charging electric vehicles. In accordance with the Ordinance, the correct, comprehensible and transparent indication of power for charging is in kilowatt hours (kWh).

German Civil Code/rent law

Sections 535 ff of the German Civil Code contain civil law rules for lease agreements. In accordance with these provisions, lessees can generally only make structural changes to the leased property with the approval of the lessor. In the future, however, the installation of charging infrastructure in leased property will be facilitated: In accordance with Section 554 of the German Civil Code, lessees generally have the statutory right that the lessor shall allow structural changes to the leased property that serve the purpose of charging electric vehicles.

Ordinance on Energy Consumption Labelling for Passenger Cars (Pkw-EnVKV)

Based on the Ordinance on Energy Consumption Labelling for Passenger Cars, the fuel economy label for new passenger cars provides information on the carbon efficiency of vehicles. Electric vehicles receive good results on the carbon efficiency scale and raising awareness of these results is expected to boost sales of electric vehicles.

Apartment Ownership Act (WEG)

The Apartment Ownership Act contains the legal requirements for organising commonhold associations and taking decisions in these bodies. The Apartment Ownership Modernization Act, which recently entered into force, will facilitate the installation of electric vehicle charging infrastructure in owner-occupied dwellings in the future. Owners have the statutory right to change common property and install charging infrastructure.

Fast Charging Act (SchnellLadG)

The Fast Charging Act provides the statutory basis for the Federation to initiate the Europe-wide call for tenders for a network of a total of 1,000 high-power charging points throughout Germany. This ensures that an essential contribution is made towards achieving a reliable and user-friendly charging infrastructure network, which is consistent with demand and provides universal coverage, in particular for medium- and long-distance transport in Germany.

Low-Voltage Connection Ordinance (NAV)

The Ordinance governs the general conditions for grid connection in the low-voltage range. Network operators are required to connect end consumers to the low-voltage network. Network operators are to be informed about charging equipment for electric vehicles before the equipment is put into service. If the sum of the rated capacity is above 12 kilovolt-amperes per electrical installation, the installation is subject to approval by the operator (reservation).

Federal state level

Parking regulations

On the basis of the state building regulations, all federal states have set out rules concerning the construction and operation of parking spaces, either in the form of independent parking regulations or included in existing regulations. These rules and regulations also often include rules for electric mobility, in particular for the electrification of parking spaces and the mandatory installation of charging infrastructure.

Climate change legislation

Some federal states have adopted their own climate change mitigation acts to set their own climate change targets for their federal state. These acts also contain requirements for the promotion of electric mobility to advance climate change targets in the transport sector.

Federal State Regional Development Plans

Federal State Regional Development Plans or Federal State Regional Development Programmes govern regional planning at the federal state level. The plans sometimes also include rules for the promotion of electric mobility and the associated infrastructure.

Local public transport legislation

Local public transport acts of the federal states set out how states comply with their public service obligation to provide sufficient local public transport services to citizens. Some of these acts also contain requirements for promoting the electrification of local public transport.

University and vocational school regulations

University and vocational school regulations of the federal states govern the curriculum content of the individual state-owned universities and vocational schools. Many federal states have already established relevant educational programmes to train specialist workers for electric mobility.

Federal state building regulations

Federal state building regulations contain regulatory requirements for building and using structural works. Charging posts are structural works, however, the erection of charging posts usually does not require approval. Nevertheless, it is necessary to comply with the provisions of the building regulations.

Mobility legislation

The first mobility act, the Berlin Mobility Act, was adopted on 28 June 2018. It contains measures for an environmentally, socially and climate friendly mobility. The Act lays down requirements for the electrification of local public transport and can provide the basis for further promoting electric mobility.

Roads legislation

The federal states' roads and highways acts contain public property law for areas dedicated to public transport. The operation of charging infrastructure in the public road environment constitutes a special use of these areas. As a result, it is necessary to obtain permission for special use.