Justification

A. General part

I. Objective of and need for the provisions

When the Small Electric Vehicle Ordinance (Elektrokleinstfahrzeuge-Verordnung, eKFV) was adopted, Section 15(4) stipulated that the eKFV is to be reviewed with regard to its effectiveness, objectives and impact on road safety, in particular based on the results of scientific monitoring. On the basis of this review and where appropriate, a proposal for the amendment of the eKFV should be submitted. The purpose of this Amending Ordinance is to incorporate the findings, in particular from scientific studies, into the eKFV, which was newly introduced in 2019.

II. Main content of the draft

Based on the review, selective amendments relating to the technical requirements of small electric vehicles in the eKFV are necessary. These will be implemented by this Amending Ordinance. This includes, for example, the mandatory fitting of turn signals (indicators) on small electric vehicles, an adaptation of the safety requirements for batteries in accordance with DIN EN 17128 and DIN EN 50604-1 and an extension of the driving dynamics testing.

In addition, in line with the results of the review, the traffic rules for small electric vehicles will be aligned with those for bicycles where possible. The traffic rules are being repealed in the eKFV and transferred to the Road Traffic Regulations (Straßenverkehrs-Ordnung, StVO). The aim of this measure is to simplify administration. A number of minor discrepancies between the traffic rules for bicycles and those for small electric vehicles will be omitted. This will make the rules applicable to small electric vehicles more accessible to the general public. In addition, a number of minor inconsistencies and contradictions will be removed, particularly with regard to the road signs that apply to small electric vehicles.

In the future, it will no longer be necessary for road traffic authorities to explicitly extend the approval for bicycle traffic to this type of vehicle by means of an additional symbol for 'small electric vehicles'. In the future, separate traffic signs for small electric vehicles will only be required in – presumably few – cases in which different rules are to be established for bicycles and small electric vehicles for a specific traffic area. In order to assess the cases in which this will be necessary, a transitional period for the corresponding amendments is provided for.

III. Executive footprint

None

IV. Alternatives

There is no revision of the eKFV or wait period for a possible harmonisation of the technical requirements for vehicles at the EU level. However, it is currently impossible to predict whether and when European harmonisation will take place, which would then render the current national technical regulations obsolete. If the eKFV is not revised, the current tech-

nical and traffic regulations will continue to apply and technical improvements to vehicles and simplification of the traffic regulations will not be implemented.

V. Regulatory competence

Regulatory competence arises from the basis for authority of this Ordinance. This Ordinance requires the consent of the Bundesrat.

VI. Compatibility with European Union law and international treaties

The Ordinance is in line with European Union law and international treaties.

VII. Consequences of the legislation

1. Legal and administrative simplification

Aligning the traffic rules with those for cycling where possible would allow the traffic rules in the eKFV to be repealed and subsequently included in the StVO. The aim of this measure is to simplify administration. This will eliminate the various minor inconsistencies and contradictions with regard to traffic regulations for small electric vehicles. The more consistent application of road signs for bicycles and small electric vehicles will make the work of road traffic authorities easier, minimising the number of cases in which additional traffic signs for small electric vehicles need to be installed.

2. Sustainability aspects

The proposed ordinance contributes to sustainable development and is fully compatible with the sustainability strategy of the German Federal Government. In particular, the sustainability indicators SDG 3 ‘Good health and well-being’ in relation to a reduction in air pollutants, SDG 11 ‘Sustainable cities and communities’ in relation to a reduction in final energy consumption in passenger transport, and SGD 13 ‘Climate action’ in relation to the reduction of greenhouse gas emissions are positively affected by the Ordinance.

Small electric vehicles (e-vehicles) are an incentive to switch to public transport. Especially in city centres, switching to e-vehicles, possibly in combination with public transport, could make a lasting contribution to improving air quality. To the extent that e-vehicles replace journeys made with larger vehicles, the regulatory proposal will contribute to achieving targets for primary energy consumption and lead to a reduction in final energy consumption in passenger transport as well as to a reduction in greenhouse gas emissions. The vehicles are often foldable and can therefore generally be carried onto public transport vehicles. This makes it possible to link different modes of transport. Routes to and from public transport locations can also be facilitated with e-vehicles.

3. Budget expenditure without compliance costs

There is no budget expenditure without compliance costs for the Federal Government and the Länder (including municipalities).

4. Compliance costs

a) For citizens

There are no compliance costs for citizens. Citizens are not burdened by this Ordinance, as they can continue to use their purchased vehicles, which have been granted a general type approval (ABE) or individual type approval (EBE), without restrictions, and, as has

been the case at the time of purchase, care must only be taken to ensure that the vehicle has a general type approval or an independent type approval.

b) Compliance costs for businesses

For businesses, this will result in a change in annual compliance costs amounting to about EUR +39 000 due to personnel expenses for bureaucratic costs arising from information obligations. In total, there are one-off compliance costs of around EUR 467 000 of which approximately EUR 120 000 for personnel and approximately EUR 355 000, for non-personnel related expenses.

The concept of increasing transparency about the conversion costs for the economy and limiting them effectively and proportionately was applied by determining the compliance cost categories.

First, the situation of the general type approval issued for e-vehicles by the end of 2023 is to be considered.

From 15 June 2019 (entry into force of the eKFV) until the end of 2023, 250 general type approvals (ABE) were granted by the German Federal Motor Transport Authority (Kraftfahrt-Bundesamt, KBA). This results in an average annual issue of 50 general type approvals per year. Therefore, the value of 50 cases is used to consider the potential change in the annual compliance costs.

The 250 general type approvals issued are distributed among 88 approval holders. Of these 88 approval holders, 5 are rental companies who no longer offer rentals in Germany (11 general type approvals) and 15 dissolved companies (31 general type approvals). If the vehicles approved for companies that have been dissolved and rental companies that no longer offer rental services in Germany are excluded, the result is 208 approvals. If a search is conducted for vehicles that are currently being advertised by the approval holder and only the latest generation at rental companies, this results in a total of around 144 ‘active’ general type approvals.

Below is a description of the compliance cost estimate for businesses for each specification.

The tests are carried out by experts from the Technical Service who have a relevant engineering degree. The wage rate is therefore set at EUR 64.20 for the sector M Provision of professional, scientific and technical services – high qualification level – in accordance with the 2025 wage cost tables for the measurement of compliance costs and administrative costs by the Federal Statistical Office (Statistisches Bundesamt).

<u>Requirement 1 (obligation to provide information): A parking brake for three- or four-wheeled vehicles must meet the requirements of DIN EN 17128 Section 15.4.2.6.</u>

From 1 January of the second calendar year following promulgation, three- or four-wheeled e-vehicles that are entering the market for the first time must demonstrate compliance with the requirements of DIN EN 17128 Section 15.4.2.6 with regard to the parking brake.

The two known approval holders who had a general type approval in which a parking brake was required due to the three-wheel design of the vehicles have become insolvent and the company is dissolved.

If, within the scope of the vehicle type approval, a parking brake is required due to the characteristic of the vehicle (three or more wheels), additional costs of EUR 64 would be incurred for the test in the approval procedure, as the TÜV Association (expert consultation) estimates that the test would require an additional 60 minutes.

Case-by-case analysis:

Time expenditure per case (in minutes)	Hourly wage (in EUR)	Personnel costs (in EUR)
60	64,20	64,20

Requirement 2 (additional requirement) Multi-axle vehicles are to be equipped with independent front and rear brakes

According to estimates, this new requirement is in principle already fulfilled by all small electric vehicles available on the market, so no adaptation of the vehicles will be necessary.

There are no additional compliance costs.

Requirement 3 (additional requirement) Lighting system must be permanently installed

According to estimates, this new requirement is also already met by all small electric vehicles available on the market, so no adaptation of the vehicles should be necessary.

There are no additional compliance costs.

Requirement 4 (obligation to provide information): Single-track small electric vehicles are to be equipped with turn signals (indicators)

From 1 January of the second calendar year following promulgation, single-track e-vehicles entering the market for the first time must be equipped with turn signals (indicators). In addition, the driver must be provided with a clear and audible indication of the operational status of the indicators. If the turn signals are located at the end of the handlebars, appropriate measures must be taken to prevent them from being covered by the hands.

Since no vehicles need to be retrofitted, manufacturers/importers are only obliged to commission the modification during production until the effective date of entry into force for new vehicles placed on the market. This means that if the components are not yet available as standard, they also must be made available on the assembly line. However, the additional effort required for assembly is negligible in the context of the overall vehicle assembly process. The costs of the components for indicators, warning lights and loudspeakers are also negligible in relation to the total cost of the vehicle (frame, brakes, drive motor, wheels, battery, control unit, etc.). According to the market analysis, newer vehicles are increasingly being produced with indicators as standard. An increase in the annual compliance costs of EUR 6 420 was assumed in the context of the test, since, according to the TÜV Association assessment (expert consultation), an additional time expenditure of two hours is expected to test the turn signals and their visual and audible perceptibility when engaged, as well as to test the measures to prevent the indicators from being obscured.

Change in annual compliance costs:

Falling number	Time expenditure per case (in minutes)	Hourly wage (in EUR)	Material costs per case (in EUR)	Personnel costs (in EUR)	Material expenses (in EUR)
50	120	64,20		6.420	
Change in compliance costs (in EUR)				6.420	

Requirement 5 (obligation to provide information): Vehicle batteries must comply with the requirements of DIN EN 17128 (PLEV standard) and DIN EN 50604-1

From 1 January of the second calendar year following promulgation, batteries in e-vehicles that are placed on the market for the first time must comply with the requirements of

DIN EN 17128 (PLEV standard) Sections 6.1, 6.3, 6.4, 10 and 11 rather than with DIN EN 15194 (Pedelec standard) Section 4.2.3 and DIN EN 50604-1, as has been the case for pedelecs since the publication of DIN EN 15194 in March 2024.

These requirements are based on DIN standards that have been established since January 2021 and March 2024 and therefore reflect state-of-the-art technology. Although the DIN EN 17128 standard is not a legal requirement, it can be assumed that most manufacturers already use corresponding batteries in their own interests. Due to their similar properties (size and capacity) to pedelec batteries, it can be assumed that these are generally used and therefore already comply with the new requirements according to DIN EN 50604-1.

An increase in the annual compliance costs of EUR 19 260 for the test is expected due to the use of additional test methods (hammer test and drop test) to assess the mechanical resistance of the electrical components. The TÜV Association was unable to comment on this additional expenditure. However, if this requirement is considered within the context of the aforementioned time required for testing, an estimate of 6 hours (setup of the test environment, execution, repetition) should certainly to be regarded as a maximum.

Change in annual compliance costs:

Falling number	Time expenditure per case (in minutes)	Hourly wage (in EUR)	Material costs per case (in EUR)	Personnel costs (in EUR)	Material expenses (in EUR)
50	360	64,20		19.260	
Change in compliance costs (in EUR)				19.260	

Requirement 6 (additional requirement) In the event of a power supply failure, the vehicle must still complete stop at a deceleration rate of at least 1.54 m/s²

In principle, the electric brake is only available as a supplementary or secondary independent brake, so it can be assumed that the vehicles available on the market meet this requirement.

There are no additional compliance costs.

Requirement 7 (obligation to provide information): Stands shall comply with the test procedure and requirements set out in Annex XVI to Commission Delegated Regulation (EU) No 44/2014

From 1 January of the second calendar year following promulgation, e-vehicles placed on the market for the first time, provided that they are equipped with a stand, are to comply with the test procedures and requirements set out in Annex XVI to Commission Delegated Regulation (EU) No 44/2014 for mopeds.

An increase in the annual compliance costs of EUR 3 210 for the test is expected, as, according to the TÜV Association (expert consultation), an additional time expenditure of 60 minutes is assumed for testing the stand.

Change in annual compliance costs:

Falling number	Time expenditure per case (in minutes)	Hourly wage (in EUR)	Material costs per case (in EUR)	Personnel costs (in EUR)	Material expenses (in EUR)
50	60	64,20		3.210	
Change in compliance costs (in EUR)				3.210	

Requirement 8 (obligation to provide information): Wet braking as an additional test for deceleration

From 1 January of the second calendar year following promulgation, e-vehicles entering the market for the first time are to demonstrate wet braking as an additional deceleration test.

An increase in the annual compliance costs of EUR 8 025 within the scope of the test is assumed, since, according to the TÜV Association (expert consultation), an additional time expenditure of 2 to 3 hours is expected due to the one-time wet braking test involving water on the road surface. The average of the time expenditure for each case was taken, which corresponded to 2.5 hours.

Change in annual compliance costs:

Falling number	Time expenditure per case (in minutes)	Hourly wage (in EUR)	Material costs per case (in EUR)	Personnel costs (in EUR)	Material expenses (in EUR)
50	150	64,20		8.025	
Change in compliance costs (in EUR)				8.025	

Requirement 9 (obligation to provide information): Extension of the dropped kerb driving dynamics test

During the driving dynamics test, the return journey required to repeat the uphill test can be used for the downhill test at a different angle or speed.

There are no additional compliance costs.

Requirement 10 (obligation to provide information): Addendum to the general type approval

For e-vehicle models that have been sold to date and that will continue to be placed on the market after 1 January of the second calendar year following promulgation, an addendum to the general type approval is necessary, which will correspond to the new amended requirements of the eKFV in place at that time.

It is expected that approximately one third of the vehicles from the current around 144 'active' approvals will be pursued. This would result in 50 cases.

The current time expenditure required for the application with expert advice is indicated on the OnDEA online database (reference number: 2021082513410401) as 2 100 minutes with additional costs of EUR 7 100. This one-off obligation to provide information therefore entails one-off compliance costs of EUR 467 000.

One-off compliance costs:

Falling number	Time expenditure per case (in minutes)	Hourly wage (in EUR)	Material costs per case (in EUR)	Personnel costs (in EUR)	Material expenses (in EUR)
50	2.100	64,20	7.100	112.350	355.000
One-off compliance costs (in EUR)				467.350	

c) Administrative compliance costs

Administrative compliance costs are incurred at the federal level by the KBA. There are one-off costs for the KBA for processing and issuing addenda to the general type approval. With expert advice, the fee for issuing an addendum to a general type approval for

small electric vehicles amounts to EUR 360 (charge no. 112.1.2 in conjunction with the Scale of Fees TGV 2010 (KBA)). The personnel expenditure at the KBA corresponds to an average of 5.1 hours per addendum. It is assumed that there will be 50 addenda with expert advice. As a result, the one-off personnel expenditure amounts to 255 hours. This corresponds to a one-off expenditure for upper-level staff of approx. EUR 10 000 . By way of contrast, there are also fees paid by manufacturers (see Section ‘Other costs’).

One-off compliance costs:

Falling number	Time expenditure per case (in minutes)	Hourly wage (in EUR)	Material costs per case (in EUR)	Personnel costs (in EUR)	Material expenses (in EUR)
50	306	40,40		10.302	
One-off compliance costs (in EUR)				10.302	

Compliance costs for the federal states (including municipalities)

At the Länder level (including municipalities), compliance costs could be incurred for possible, isolated use of the regulatory sign 257-59 prohibiting small electric vehicles if a deviation from an existing approval for bicycle traffic is deemed necessary. The corresponding expenditure is therefore at the discretion of the Länder (including municipalities) and therefore cannot be quantified.

5. Other costs

Applicants will incur costs for the addenda to the general type approval of e-vehicles. The average fee for applying for an amendment to a general type approval to the KBA is EUR 360 with expert advice (charge no 112.1.2 GebOSt in conjunction with the Scale of Fees TGV 2010 (KBA)). The one-off fee payment from the manufacturer to the KBA therefore amount to approximately EUR 18 000. EUR.

6. Further regulatory consequences

The approval of e-vehicles for public road transport has resulted in increased mobility for consumers in the long term. Small electric vehicles can be used in a variety of ways in everyday life. They also meet the desire of many citizens for vehicles that are as environmentally friendly and emission-free as possible.

There is no evidence that women and men could be affected differently by this Ordinance. Therefore, there is no relevance with regard to gender.

VIII. Limitation; evaluation

As the amendments to this Ordinance were drawn up on the basis of the results of scientific monitoring, no time limit or evaluation are envisaged.