



Department  
for Transport

# Electrically Assisted Pedal Cycles (EAPC) Deregulation Results of November 2014 public consultation

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# Foreword

i. A public consultation on draft regulations to amend legislation concerning Electrically Assisted Pedal Cycles (EAPCs) began on 3 November 2014. It sought views on amendments to The Electrically Assisted Pedal Cycle Regulations 1983 and The Pedal Cycles (Construction and Use) Regulations 1983 to reflect current technology and attitudes towards cycling, align with European provisions, and update technical references.

ii. We thank all those who responded to this consultation. All views expressed have been considered carefully and have helped to decide on the final form of the regulations to submit for Parliamentary assent.

## Summary of responses

1.1 Comments were received from a broad range of interests including individuals, trade organisations representing the cycle industry, manufacturers and dealers, local authorities, safety interest groups, and companies providing pedal cycle services such as couriers.

1.2 45 responses were received of which 26 (53%) expressed unqualified support for all the changes proposed. None was wholly against. The remaining 19 (47%) expressed qualified support and/or made comments on points of detail.

1.3 The principal comments on the key issues raised in the consultation were:

### ***Increase of maximum motor power from 200 watts to 250 watts for standard bicycles***

There was strong support for aligning with the European power limit of 250 watts but one response considered that pedicabs should not be permitted to have an electric motor at all.

### ***Removal of weight limits for all EAPCs***

Three respondents opposed removing the existing GB weight limits (40 kg for bicycles and 60kg for tandems and tricycles). One of these was particularly concerned of the removal of the weight limit for tricycles and quadricycles.

### ***Removal of limit of 3 wheels for EAPCs***

There were three responses on this subject. Two responses commenting on this specifically were in favour but one respondent was opposed to the introduction of quadricycles.

### ***Increase of the maximum speed at which the motor can power the vehicle from 15 mph to 15.5 mph.***

This was generally supported - but a few respondents sought a higher cut-off limit.

### ***Changes to the vehicle marking requirements for EAPCs***

One reply suggested additional data consistent with all information specified in international standard BS EN 15194<sup>1</sup>.

### ***Changes to the requirements for brakes fitted to EAPCs***

One reply commented on the detail of the standard proposed and another sought a simple test for users rather than the application of an international standard. One respondent commented that they were concerned that the standard of braking on tricycles and quadricycles would be poor and they also had a concern regarding the handling and manoeuvrability of these particular cycles.

### ***Continuing to permit 'twist and go' cycles***

One reply recommended that non-pedal power assistance should be harmonised with the EU at 4mph (6.4 km/h) and thus remove the ability to allow 'twist and go' cycles.

### ***Other Comments***

We also received comments on other cycle-related matters outside the scope of the amending regulations, including: requirements for lights and reflectors; electrically assisted cycle trailers; and the arrangements for type / individual approval of vehicles within the scope of EU Regulation 168/2013<sup>2</sup>; a licencing regime for riders of cargo cycles; a regulatory regime for pedicabs and the introduction of safety specifications specifically for goods carrying cargo bikes.

## **Summary of Government response**

1.4 Having considered the responses, The Department for Transport will make some minor changes to the draft EAPC regulations to reflect comments on points of detail and seek parliamentary approval for them. If Parliament approves the regulations, the intention is that they will come into force on 6 April 2015.

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<sup>1</sup> BS EN 15194:2009+A1:2011 Cycles - Electrically power assisted cycles - EPAC Bicycles

<sup>2</sup> Regulation (EU) no 168/2013 of the European Parliament and of the Council of 15 January 2013 on the approval and market surveillance of two- or three-wheel vehicles and quadricycles

# The consultation proposals

## Background

2.1 The Department for Transport (DfT) undertook a public consultation on draft regulations amending The Electrically Assisted Pedal Cycles Regulations 1983 and The Pedal Cycle (Construction and Use) Regulations 1983 in order to simplify the legislation and align requirements with European legislation and standards.

2.2 The changes proposed in the draft regulations were as follows:

### ***The Electrically Assisted Pedal Cycles Regulations 1983***

- The maximum motor power for standard bicycles is increased from 200 to 250 watts.
- All the weight limits are removed.
- Vehicles with more than 3 wheels are permitted.
- The maximum speed at which the motor can power the vehicle is amended from 15 to 15.5 mph.
- References to withdrawn British Standards in the 1983 Regulations are replaced by the latest appropriate European standard, and a "mutual recognition" provision will enable other technically equivalent European standards to be accepted.

### ***The Pedal Cycles (Construction and Use) Regulations 1983***

- As an alternative to the current vehicle plating requirement to show name of the manufacturer, nominal voltage of the battery and maximum continuous power of the motor, the vehicle can be marked with: the name of the manufacturer, the maximum speed at which the motor can propel the vehicle; and the maximum continuous rated power of the motor.
- References to a withdrawn standard on brakes are replaced by the current equivalent BS EN ISO 4210-2:2014<sup>3</sup> and a "mutual recognition" provision will enable other technically equivalent European standards to be accepted. (For vehicles subject to approval in accordance with EU Regulation 168/2013 reference is made to the approval standard).

## Consultation process

2.3 The consultation ran for five weeks from 3 November 2014 to 8 December 2014. 67 key stakeholders (including road safety groups, cycle interest groups, cycle manufacturers and retailers, national and local government representatives, and enforcement bodies) and 31 individuals who had previously expressed an interest in EAPC matters, were approached directly. The consultation was also placed on the

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<sup>3</sup> BS EN ISO 4210-2:2014 - Cycles. Safety requirements for bicycles. Requirements for city and trekking, young adult, mountain and racing bicycles.

Government's consultation website. One response was received after the closing date but the comments within the response were considered.

## The consultation responses in detail

3.1 A total of 45 replies were received under the following categories:

Member of Public	13	29.0%
Small Medium Enterprise	13	29.0%
Large company	4	8.9%
Representative Organisation	6	13.3%
Interest group	2	4.4%
Local Government	4	8.8%
Central Government	2	4.4%
Police	0	0%
Other	1	2.2%
TOTAL	45	100%

Where there were interest overlaps e.g. a government group also involved in enforcement, the body has simply been listed in the group considered most appropriate. Some respondents are organisations characterised by expertise in road and/or vehicle use, technology and safety and/or which represent many thousands of members.

3.2 Of the 26 expressing unqualified support for all the proposals, the split was:

Member of Public	5	19.2%
Small Medium Enterprise	10	38.4%
Large company	3	11.5%
Representative Organisation	2	7.7%
Interest group	1	3.9%
Local Government	2	7.7%
Central Government	2	7.7%
Police	0	0%
Other	1	3.9%
	26	100%

### ***Increase of maximum motor power from 200 watts to 250 watts for standard bicycles***

3.3 There were no adverse comments on this specific change.

3.4 One respondent sought a higher limit for load-carrying tricycles and quadricycles as light urban delivery vehicles and a new class of 350 watt cycle. Another suggested that, for cargo-carrying vehicles, the use of torque and rotational maximum delivery was

a better way of determining the maximum level of motor assistance. Two replies expressed concern about the continued inclusion of "twist and go" cycles - in particular industry ignoring or misconstruing type approval requirements. One response considered that pedicabs should not be permitted to have an electric motor at all.

*Government response: A higher motor power and different method of determining motor assistance would introduce disparities from applicable European legislation and international standards - i.e. contrary to a key objective of the changes proposed. The Department for Transport is considering how best to ensure the UK's obligations under EU Regulation 168/2013 are met when type/individual approval becomes mandatory in January 2016. There is no justification for excluding passenger-carrying vehicles from EAPC classification.*

### **Removal of weight limits for all EAPCs**

3.5 Overall, removal of the existing GB weight limits (40 kg for bicycles and 60kg for tandems and tricycles) was well-supported. However, two respondents expressed concern that to do so would create enforcement difficulties for some imported vehicles; another raised general instability concerns for passenger-carrying tricycles; a third considered that the heavier cycles should be registered on purchase and a fourth was not supportive of the weight removal especially for tricycles and quadricycles as they felt that this would encourage the proliferation of electric pedicabs and heavy cargo cycles.

*Government response: The previous reviews that led to the proposed changes indicated that removal of the limits will not have adverse safety consequences. We are of the opinion that the weight of heavier cycles will be self-limiting, as added weight will limit the performance of the machine and require more rider input. Removing the weight limit allows for more robust cycle design and improved construction materials which will lead to improved safety and security.*

### **Removal of limit of 3 wheels for EAPCs**

3.6 One respondent observed that this would make it easier for EAPCs to be used by those with different mobility needs. Another said that this was a very important amendment in order to facilitate logistic operators to use cargo cycles for increased load capacity as well as improved safety and security. A further respondent opposed the removal of the limit of 3 wheels indicating that they felt that 4 wheeled cycles would manoeuvre and handle differently to 3 wheeled cycles and pose as yet unknown safety risks. However, one respondent pointed-out that unicycles would be permitted with the draft wording.

*Government response: The final legislation will be amended to align with the European classification that vehicles must have at least two wheels.*



***Increase of the maximum speed at which the motor can power the vehicle from 15 mph to 15.5 mph.***

3.7 Five respondents sought a higher cut of speed ranging from 17 mph to 28 mph contending that higher speeds were safer on roads and would encourage even greater use of EAPCs.

3.8 One respondent suggested that wheel size should be a criterion as that can affect speed and expressed concern about EAPCs modified to overcome the restriction.

3.9 One respondent observed that the EU standards specify some tolerances on speed measurement on what is determined during test and during production checks and asked that those tolerances be included.

3.10 Two respondents preferred to see the limit expressed in km/h to fully align with the European standards.

*Government response: Higher speed would create a new disparity from the European classification and applicable standard and would require investigation into the safety consequences for accident severity - particularly since EAPC riders are not required to hold a driving licence. Speed limits in legislation do not specify tolerances but applicable standards (such as BS EN 15194:2009+A1:2011) and enforcement activities do apply appropriate allowances. Vehicles modified out of conformity with the regulations will no longer be EAPCs and would be liable to applicable enforcement and penalties.*

*The official unit of speed measurement on roads in the UK is mph.*

***Changes to the vehicle marking requirements for EAPCs***

3.11 One respondent suggested that the full range of requirements in international standard BS EN 15194 should be applied.

*Government response: Some EAPCs will not comply with this standard - including vehicles with more than 3 wheels, which are outside its scope. The proposed marking requirements are the least burdensome consistent with enforcement. (Any additional information as required under BS EN 15194:2009+A1:2011 can still be provided).*

***Changes to the requirements for brakes fitted to EAPCs***

3.12 One respondent pointed out that the cited standard - BS EN ISO 4210-2:2014 - included different requirements for 4 categories of cycle and sought clarification of what was required; and suggested that forthcoming changes to BS EN 15194 be anticipated. The respondent also queried the omission of standards effective between the original 1983 Regulations and the present; and advocated citing standards without a qualifying year of application. Another respondent made a similar comment on citing date-specific iterations of a standard.

*Government response: The standard applies different requirements for: city and trekking bicycles; mountain bicycles; racing bicycles; and young adult bicycles. Most EAPCs will be produced in the city and trekking category but the general reference is*

*intended to give flexibility to apply the appropriate standard to the type of cycle in question. It is not appropriate to legislate for standards that have yet to be finalised.*

*The purpose of this amendment is to ensure that vehicles complying with the original 1983 requirements remain lawful - i.e. in addition to recognising the new standard. There is no need, therefore, to recognise any other specific standard (other than via the "mutual recognition" clause for equivalent European counterparts). We cite the specific version of a standard because we might not want to mandate provisions of a subsequent amendment.*

*Although the BS EN ISO 4210-4:2014 standard states that its scope only covers bicycles as defined in BS EN ISO 4210-2:2014 we will ensure that the Construction and Use Regulations will reference this standard for use in ensuring minimum braking standards for all cycles with more than two wheels. These requirements will apply at the design and manufacture stage and should be ensured by good maintenance.*

3.13 One respondent commented that it is unreasonable to expect individuals to maintain brakes to "obscure and esoteric standards" and that a simple test should be devised that users can apply.

*Government response: This comment applies to many aspects of vehicle construction and use. International standards help to ensure that safety measures are applied consistently by manufacturers over a wide market. Ultimately, safety tests will often only be practicable with some specialist equipment or professional expertise.*

### **Other Comments**

3.14 One respondent sought mandatory fitting of lights to all EAPCs.

3.15 One respondent asked that DfT's earlier decision to treat electric bike trailers as motor vehicles be reconsidered.

3.16 One respondent urged that low-speed "twist and go" EAPCs should be exempt from type approval.

3.17 One respondent suggested that the cut-off speed for pedal assistance should be harmonised with the EU standard to 4mph (which would be 6.4km/h not 6km/h) and as a result "twist and go" EAPCs with a cut-off speed of 15mph should no longer be permitted.

3.18 One respondent was concerned that all cyclists including EAPC cyclists should receive cyclist training and that cyclists should consider the wearing of a cycle helmet and conspicuity items.

3.19 One respondent sought clarification on whether retrofit electric bike systems would be allowed if they met the same criteria as EAPCs; and advocated the recognition of light moped class category L1e.

3.20 One respondent recommended that a licensing regime for riders of cargo cycles should be introduced.

3.21 One respondent recommended that a regulatory regime for pedicabs should be introduced.

3.22 One respondent requested that the Department consider creating safety specifications and type approval regime specifically for cargo cycles that exceed the current 60kg weight limit.

*Government response: These comments mainly concern matters that lie outside the scope of the amending regulations.*

*There is no change concerning the application of the legislation to vehicles that are converted into EAPCs once they are in use.*

*The Red Tape Challenge Review and subsequent examination of points made did, however, include lights and reflectors for pedal cycles. The Department for Transport will consider the recommendations on this aspect as soon as practicable and will consult on any proposals for change.*