

Regulatory Variations of EPACs and eBikes

European Cyclists' Federation

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This is a document attempting to layout the legislative differences between various types of Electric Power Assisted Cycle (EPAC/Pedelec) and eBikes in general. The purpose is to show that there are still challenges in harmonizing EPAC regulation across EU legislation despite the clear classification within (and exemptions from) Type Approval. And also to show the problems associated with upcoming changes to the Motor Vehicle Insurance Directive of including all EPACs as motor vehicles.

Briefly, the Commission is planning to review the definition for what constitutes a motor vehicle under the Motor Vehicle Insurance Directive¹ by allowing the widening of the 'motor vehicle' definition to include all vehicles on public roads "propelled by mechanical power". The consequences would be;

- Mandatory 3rd party motor vehicle insurance for all EPACs (regardless of current insurance status)
- Increasing administrative burden for all, confusion for member states/criminalization amongst millions of riders, and a patchwork of regulations and rules across the EU

In the chart below what is important is the smooth harmonisation amongst the lower power EPACs under 250 watt which are universally recognised as bicycles by member states (the two top lines below the bicycles row in the chart below). These are far and away the most popular EPACs/eBikes in Europe² and have huge potential for shifting large numbers of motor vehicle use onto healthy active transport modes. It is imperative that the 250 watt EPAC and 250 watt cargo bikes remain green. 250 watt EPACs and cargo EPACs, the most popular bikes, should remain regulated as bicycles; this is crucial.

Speed EPACs regs are reasonably clear except for the older Driving License Directive of 2006 and could be improved but a more pressing issue is how confusion could creep into the popular and hugely potential 250 watt EPAC if the Motor Vehicle Insurance Directive would (as currently planned) treat 250 watt EPACs as motor vehicles, creating the confusion that is seen in higher powered bikes. The clouding of the status of millions of 250 watt EPACs would be problematic for future EU (and national) policy.

Another possible upcoming policy issue may be defining the CPA (Classification of Products by Activity) codes for EPACs as bicycles in order to give Member States the possibility to apply reduced or zero VAT rates for EPACs within the ongoing VAT reform³. The current CPA codes, on which the Commission's VAT rates reform proposal is based, date from 2008. They classify all power-assisted bicycles under the same code as motorcycles, for which Member States would have to apply standard VAT rates. The only means of transport exempted from this obligation to apply standard VAT would be non-motorised bicycles, baby carriages and invalid carriages, and electric/hydrogen cars. This means that conventional non-assisted bicycles, but also electric cars, would benefit from reduced or zero VAT rates, while Member States would be obliged to apply standard VAT rates on EPACs.

¹ ECF position paper is available here https://ecf.com/sites/ecf.com/files/ECF_Motor_Vehicle_Insurance_Position%20Paper_2017.pdf

² EPAC sales increasing by around 20% each year. Around 1.7 million sold in EU in 2016, Speed EPACs sales are in the tens of thousands <http://www.conebi.eu/facts-and-figures/>

³ <https://ecf.com/news-and-events/news/will-e-bikes-get-run-over-eu-vat-reform>



Constellation of EU legislative definitions of EPACS and electric bikes

	EU Type Approval 2013	EU driving license Directive 2006	General state of Member States road rules (are these treated as bicycles?) - now	CPA 2008 - EU Statistical Classification of Products by Activity, as basis for EU VAT rates reform	EU insurance Directive under Commissions plans - upcoming
"Conventional" non-motorised bicycles	Exempt = bicycle	Exempt = bicycle	Exempt = bicycle	Exempt from standard VAT obligation (CPA subcategory 30.92 Bicycles (not motorised) + invalid carriages)	Exempt = bicycle
250 watt EPACs	Exempt = bicycle	Exempt = bicycle	Exempt = bicycle	Included in standard VAT obligation (CPA subcategory 30.91.13 (Motorcycles n.e.c.; side-cars))	Included (motor Vehicle)
250 watt cargo bikes	Exempt = bicycle	Exempt = bicycle	Exempt = bicycle	Included in standard VAT obligation (CPA subcategory 30.91.13 (Motorcycles n.e.c.; side-cars))	Included (motor Vehicle)
Higher Powered Speed pedelecs	Included L1-eB (motor Vehicle)	Unclear as two definitions are in opposition. Plus points to old legislation	mainly moped motor vehicle	Included in standard VAT obligation (CPA subcategory 30.91.13 (Motorcycles n.e.c.; side-cars))	Included (motor Vehicle)
Higher power cargo bikes	Included L1-eA (motor Vehicle)	Unclear as two definitions are in opposition. Plus points to old legislation	mainly moped motor vehicle	Included in standard VAT obligation (CPA subcategory 30.91.13 (Motorcycles n.e.c.; side-cars))	Included (motor Vehicle)
"Twist and go" non-pedalled electric bikes	Included L1-eA (motor Vehicle)	Exempt as long as less than 25 km/h	mainly moped motor vehicle	Included in standard VAT obligation (CPA subcategory 30.91.13 (Motorcycles n.e.c.; side-cars))	Included (motor Vehicle)
All other higher power electric bikes	Included as motor vehicle	Included as Motor Vehicle	Treated as motor vehicle	Included in standard VAT obligation (CPA subcategory 30.91.13 (Motorcycles n.e.c.; side-cars))	Included as Motor vehicle
Electric cars	Included as motor vehicle	Included as motor vehicle	Included as motor vehicle	Exempt from standard VAT obligation (CPA subcategory 29.10.24 Other Vehicles for the transport of persons)	Included as motor vehicle

