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Electrically Assisted Pedal Cycles

Regulatory Impact Assessment

JUNE 2017

Title: The Electrically Assisted Pedal Cycles (Construction and Use) Regualtions 2017.	**Regulatory Impact Assessment (RIA)**
	Date: February 2017
	Type of measure: Subordinate Legislation
Lead department or agency: Department for Infrastructure	**Stage:** Draft
	Source of intervention: Domestic NI
Other departments or agencies:	**Contact details:** Alex Boyle
	Ext. 41194

Summary Intervention and Options

What is the problem under consideration? Why is government intervention necessary? (7 lines maximum)
Currently Northern Ireland is the only region in the UK and Ireland that requires electrically assisted pedal cycles (EAPCs) to be licensed, taxed and insured as a motor vehicle. There have also been significant developments in technology and applicable technical standards; cycle use; and consumer markets. Recent EU legislation has specified the features of an EAPC that exempt it from type approval at the manufacturing stage. Intervention is required to recognise the technological and societal developments; harmonise NI requirements with the rest of the UK and the wider EU; and to support EAPC usage in Northern Ireland.

What are the policy objectives and the intended effects? (7 lines maximum)

The principal objective is to simplify and reduce the regulatory burden whilst maintaining or improving safety standards. The second objective is to promote cycling as a mode of transport that has health and environmental benefits in line with the Department's Bicycle Strategy for Northern Ireland.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base) (10 lines maximum)

Option 1: Do nothing which will mean that EAPCs will be subject to tax, licensing and insurance requirements.

Option 2 (Preferred Option): Introduce regulations to: set the maximum permitted electric motor power for standard bicycles to 250W; enable EAPCs with more than 3 wheels to be used if there is a market for them; define technical standards for an EAPC. The maximum speed at which electrical assistance must cease would be set at 15.5 m.p.h. to reflect the 25 km/h limit in EU legislation and in current technical standards.

Given the current regulatory position, the Preferred Option is considered to be the only practicable method of dealing with the problems identified and achieving the above objectives.

Will the policy be reviewed? No	**If applicable, set review date:** N/A

Cost of Preferred (or more likely) Option				
Total outlay cost for business	**Total net cost to business per year**		**Annual cost for implementation by Regulator** £	
Does Implementation go beyond minimum EU requirements?			**NO** ☒	**YES** ☐
Are any of these organisations in scope?	**Micro** Yes ☒ No ☐	**Small** Yes ☒ No ☐	**Medium** Yes ☒ No ☐	**Large** Yes ☒ No ☐

The final RIA supporting legislation must be attached to the Explanatory Memorandum and published with it.
Approved by: Liz Loughran Date: 9 June 2017

Summary: Analysis and Evidence — Policy Option 2

Description:
Introduce EAPC regulations as described.

ECONOMIC ASSESSMENT (Option 2)

Costs (£m)	Total Transitional (Policy) (constant price)	Years	Average Annual (recurring) (excl. transitional) (constant price)	Total Cost (Present Value)
Low	**Optional**		**Optional**	**Optional**
High	**Optional**		**Optional**	**Optional**
Best Estimate				

Description and scale of key monetised costs by 'main affected groups' Maximum 5 lines

This is a deregulatory measure.

Other key non-monetised costs by 'main affected groups' Maximum 5 lines

Benefits (£m)	Total Transitional (Policy) (constant price)	Years	Average Annual (recurring) (excl. transitional) (constant price)	Total Benefit (Present Value)
Low	**Optional**		**0.39m**	**£2.91m**
High	**Optional**		**1.14m**	**£8.70m**
Best Estimate	**0 (all recurring)**		**0.75m**	**£5.82m**

Description and scale of key monetised benefits by 'main affected groups' Maximum 5 lines

Other key non-monetised benefits by 'main affected groups' Maximum 5 lines

There may be benefits to the cycling industry from increased electric bike sales, although these are likely to be displaced by reduced expenditure in other retail sectors.

Key Assumptions, Sensitivities, Risks Maximum 5 lines

Figures have been calculated based on the Regulatory Impact Assessment published by DfT in 2015 and applying a proportionate reduction based on population (NI represents 3% of UK population).

BUSINESS ASSESSMENT (Option 2)

Direct Impact on business (Equivalent Annual) £m				
Costs: £0m	**Benefits: -£0.02m**	**Net: - £0.02m (benefit)**		

Cross Border Issues (Option 1)

How does this option compare to other UK regions and to other EU Member States (particularly Republic of Ireland) Maximum 3 lines
Legislation already in place in GB and in Ireland. Intervention is required to recognise the technological and societal developments; harmonise NI requirements with the rest of the UK and the wider EU; and to support EAPC usage in Northern Ireland.

Evidence Base

1. Problem under consideration.

1.1. This Impact Assessment concerns the proposed introduction of the Electrically Assisted Pedal Cycles (Construction and Use) Regulations (Northern Ireland) 2017.

1.2. Currently Electrically Assisted Pedal Cycles (EAPCs) are, by law, considered to be motor vehicles and therefore, require registration and licensing before they can be used on the road in Northern Ireland. Some EAPCs have been exempt in Britain since 1983 and the new regulations will bring NI into line with this position. The Regulations will set out the requirements which bicycles, tandem bicycles and tricycles must meet in order to be classified as EAPCs for use on roads. They will be made under powers in primary legislation which state that compliant EAPCs are not legally considered to be motor vehicles and so are not required to be registered, display a vehicle excise disc or be insured as a motor vehicle. Also, riders of these vehicles will not be required to hold a valid driving licence.

1.3. In early 2009, CEN (the European Standards body) published a new standard relating to two-wheeled EAPCs[1]. In the European standard, the speed up to which the electric motor may provide assistance is 25 km/h (15.5mph), the maximum power output for bicycles is higher (250W) and the standard does not restrict the weight.

1.4. A recent EU Regulation - 168/2013 - mandates harmonised safety standards for motorcycles. Compliance will be achieved through type approval at the manufacturing stage (or Individual Vehicle Approval prior to first use). However, the Regulation excludes EAPCs from its scope provided that the maximum motor power does not exceed 250W and motor assistance reduces progressively with speed and ceases at 25km/h. There are no restrictions on the number of wheels and no weight limits.

1.5. There have also been advancements in: technology – in particular power supply, where heavy lead-acid batteries have largely been superseded by lighter and more efficient lithium-ion batteries; and in societal attitudes towards cycle use both for consumers and businesses in relation to congestion, operating costs, emissions and health.

2. Reasons for intervention

2.1. In the Department's *Bicycle Strategy for Northern Ireland*, the vision for cycling is set within the context of, and driven by, the Executive's Programme for Government priorities of growing a sustainable economy, improving health and well being while building communities and protecting the environment. Cycling can make a significant contribution towards the five Programme for Government priorities. As part of this Strategy, there are a number of areas being taken forward to encourage and support

[1] BS EN 15194:2009 Cycles - Electrically power assisted cycles - EAPCs

people who choose to use the bicycle which includes promoting electric bikes. Therefore the implementation of these Regulations will facilitate this area of work.

2.2. The EU classification of electrically assisted pedal cycle contained in Framework Directive 2002/24 on the type approval of motorcycles has specified the features of an EAPC that exempt it from type approval at the manufacturing stage. Therefore, there are significant benefits that could be derived from implementing NI EAPC Regulations which will reflect advancements in technology, cycle use, and the consumer market, and aligning them with the most recent EU legislation and standards - in particular, EU Regulation 168/2013 (which supersedes Directive 2002/24) and BS-EN 15194.

3. Policy objectives

3.1. The policy objectives are:

- Simplify and reduce the legislative burden whilst improving safety standards.
- Promote cycling as a mode of transport that has health and environmental benefits.
- Reduce congestion and reduce operating costs for consumers and commercial users of EAPCs.

4. Description of options considered

4.1. The following options were considered in the development of this policy:

Option 1

Do Nothing. The existing restrictions would remain in force.

Option 2

Preferred Option. Introduce new Regulations to:

- set the maximum permitted electric motor power for standard bicycles to 250W;
- enable EAPCs with more than 3 wheels to be used if there is a market for them;
- define technical standards of an EAPC in line with those in the UK and Europe.
- The maximum speed at which electrical assistance must cease would be set to 15.5 mph to reflect the 25 km/h limit in EU legislation and technical standards.

5. Costs and benefits

Option 2

Costs

5.1 As the preferred option is de-regulatory, and no evidence has been provided or otherwise identified that suggests any significant quantifiable additional safety (accident/casualty) or other costs, the impact assessment assumes negligible costs. The familiarisation costs will be negligible as the rules in NI will be aligned with the rest of the UK and the EU. Over time alignment of the Regulations will reduce familiarisation costs to new businesses and retailers that will not have to be aware of separate regulations for different jurisdictions in the UK.

Benefits - EAPC Bicycles

Benefits would derive from increased cycle sales that would deliver

- travel cost savings
- CO_2 savings
- improved health
- congestion cost savings

as calculated below.

5.2 A review of EU EAPCs, shows that the majority of the EAPCs sold in the EU have 250W engines and are not subject to arrangement that are currently in place in NI. In NI, EAPCs are required to be pay road tax, have insurance and be licensed. The combination of these rules means this will significantly restrict the number of bicycles taken up in NI. Therefore, benefits will be available for the EAPC bicycle market through harmonisation with the rest of the UK and the EU standards. This is likely to lead to lower prices, improved marketability and importantly increased sales. Some of these sales, and the journeys made by such cycles, have the further potential to displace journeys by car (or bus) and thus provide fuel, emissions, health, noise and congestion benefits.

5.3 It is difficult to precisely estimate the impact on the market of the change to regulations as there is no NI specific data in relation to the use and sales of EAPCs. It is assumed that there will be direct benefits to business as there will be increased profits from increased bike sales. This is because the measure removes a regulatory barrier, which allows consumers to purchase the vehicles they desire.

5.4 In the London School of Economics 'Gross Cycling Report', it states that in 2010, 3.7 million bicycles were sold in the UK valued at £1.6biliion to the UK economy[2]. There is no data for Northern Ireland specifically on sales and moreover, on sales of EAPCs however it has been estimated that 35 million EAPCs were sold worldwide in 2016. In many Western European countries EAPCs sales have been steadily rising. In 2017, EAPCs are expected to out sell conventional bikes for the first time in Germany and the Netherlands[3].

5.5 Research carried out from online retail websites suggests that EAPCs cost between £800-£2000 to buy.

5.6 There would be health and CO_2 benefits to consumers switching from bus or car use to EAPC use The switch from walking or conventional cycling to using an EAPC may result in increased costs to EAPC users. However, as the measure is deregulatory, it is the consumer's decision to purchase the EAPC, and therefore they must perceive an

[2] LSE (2011). The British cycling economy, 'gross cycling product' report. Dr Alexander Grous, Centre of Economic Performance, London School of Economics, 2011.
[3] Navigant Research (2016). Report on Electric Bicycles https://www.navigantresearch.com/research/electric-bicycles

overall benefit of the choice to cycle, assuming zero benefit for these users is therefore a conservative assumption.

5.7 There would be savings for those users who switch from driving a car to riding a EAPC. The initial cost of a car, maintenance and petrol/diesel costs plus the licensing, insurance and road tax charges will not have to be incurred. There would be upfront, maintenance and electricity charging costs associated with an EAPC but it is likely these will be significantly lower than those of a car.

5.8 There may also be external benefits and costs if car usage decreases. A reduction in car use would lead to less congestion on our roads, less damage to our road infrastructure, a decrease in air and noise pollution and greenhouse gases. There is also the potential of fewer road traffic collisions as a result of fewer cars on our roads.

5.9 Removing the need for EAPCs to be registered, licensed and taxed in Northern Ireland may stimulate growth in the goods/cargo delivery cycle market. It may also stimulate growth in the pedicab market however it is important to note that other external legislative factors may continue to act as barriers to pedicab services. Data is not readily available on current delivery bike usage however given the deregulatory framework of the proposals, it is reasonable to expect that they may be some savings in operating and congestion costs. However, this will depend on the uptake of using EAPCs by goods delivery companies.

5.10 Also there may be health benefits derived if goods/cargo delivery companies switch to using EAPCs. However, while cycle delivery operations would naturally tend to enhance the fitness and basic health of the rider, they may also expose them to stresses associated with meeting delivery deadlines and getting through traffic, as well as operate in dense urban centres where the air quality is poor. Therefore, it is assumed there will be zero health benefits for good/cargo cycle operations.

6. Wider Impacts

6.1 *Competition Assessment*
In view of the deregulatory nature of the preferred option, which does not entail any costs, it is considered that there are no competition impacts.

6.2 *Small and Micro Business Assessment*
This measure is beneficial to business. Therefore, no businesses are exempt from this measure to ensure that the full range of businesses can benefit.

6.3 *Equalities Assessment*
It is considered that there are no race, gender or disability equality impacts to the preferred option.

6.4. *Policy Review*
As the preferred option is deregulatory, review after a particular period is not considered necessary.

7. Summary

7.1 Currently Northern Ireland is the only region in the UK and Ireland that requires electrically assisted pedal cycles (EAPCs) to be licensed, taxed and insured as a motor vehicle. There have also been significant developments in technology and applicable technical standards; cycle use; and consumer markets. Recent EU legislation has specified the features of an EAPC that exempt it from type approval at the manufacturing stage. Intervention is required to recognise the technological and societal developments; harmonise NI requirements with the rest of the UK and the wider EU; and to support EAPC usage in Northern Ireland. Following consultation, two options have emerged:

Option 1: Do Nothing

Option 2 (Preferred Option): Introduce new Regulations to:

- set the maximum permitted electric motor power for standard bicycles to 250W;
- enable EAPCs with more than 3 wheels to be used if there is a market for them;
- define technical standards of an EAPC in line with those in the UK and Europe.
- The maximum speed at which electrical assistance must cease would be set to 15.5 mph to reflect the 25 km/h limit in EU legislation and technical standards.

7.2 Pending validation of the Impact Assessment, the draft Regulations will be finalised for implementation subject to Ministerial and Assembly approval.