EUROPEAN COMMISSION

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REGULATORY SCRUTINY BOARD OPINION

COMMISSION REGULATION

laying down ecodesign requirements for external power supplies, wireless chargers, wireless charging pads, battery chargers for portable batteries of general use and USB Type-C cables, pursuant to Directive 2009/125/EC of the European Parliament and of the Council and repealing Commission Regulation (EU) 2019/1782

{ C(2025) 6759 final }

{ SWD(2025) 288 final }
{ SWD(2025) 289 final }

EUROPEAN COMMISSION
REGULATORY SCRUTINY BOARD

Brussels,
RSB

Opinion

Title: Impact assessment / Review of Ecodeisgn requirements for external power supplies

Overall 2nd opinion: POSITIVE

(A) Policy context

Ecodesign provides rules at the product design stage to improve the environmental performance of products placed on the EU market. Existing ecodesign measures are reviewed regularly to ensure they remain relevant, efficient, and effective in the light of technological and market developments.

The product-specific legislation for external power supplies aims to ensure the placing on the market of technologies that reduce the life-cycle environmental impact of external power supplies and the elimination from the market of those products not meeting improved standards. This report assesses possible ways to update ecodesign requirements for external power supplies (EPS).

(B) Key issues

The Board notes the substantial clarifications and improvements in the revised report.

The Board gives a positive opinion. The Board also considers that the report should further improve with respect to the following aspects:

(1) The impacts of the options on competitiveness and innovation are not elaborated in sufficient detail, in particular as regards EU industry compared to third country competitors.

(2) The methodology behind the chosen scoring system requires further clarification.

(3) The costs in scope of the One In, One Out approach are not presented clearly.

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(C) What to improve

(1) The analysis of respective impacts on EU and third-country EPS manufacturers and operators is underdeveloped, and should include potential opportunities for EU industry to develop. The report should discuss to what extent the options will facilitate or not the transfer of EPS manufacturing from third countries to the EU. The report should also provide further analysis on the impacts of options on the potential to innovate, including potential trade-offs. It should, in particular, analyse any effects on how innovation, understood as product differentiation, could be affected if regulatory requirements would mean moving towards a more harmonised product population. For example, potential secondary impacts on innovation related to the lifetime of charged devices should be analysed.

(2) The choice of the specific scoring system, including the choice of introducing scoring thresholds to compare alternative options, and the methodology behind the applied rankings should be clarified and justified, as the scoring system plays a crucial role in determining the comparison and prioritisation of options. The validity of setting thresholds when absolute (or normalised) values already exist should be better justified.

(3) While the revised report presents the assumptions and a comprehensive sensitivity analysis with respect to the two behavioral assumptions on the reaction of the consumers to improved interoperability and the uptake of manufacturers of the voluntary unbundling, the report could be quantitatively corroborated with available evidence and the likelihood of their realisations/deviations based on available studies and analyses not necessarily directly related to the EPS but to the wider ecodesign framework.

(4) While the report provides ample description of the content of the options in the annexes, it would benefit from a summarised description in the main body of the report, as well as why the different measures were combined to form the options as presented. The report could also more clearly explain whether there are gaps in the coverage of products due to the legal framework and/or technical constraints, including whether other legal instruments to address such gaps may be available.

(5) While the contribution to the EU energy efficiency target is not an objective of the initiative in itself, it could nevertheless be estimated for the options as part of the analysis of expected impacts.

(6) The revised report should include in its Annex 3 the obligatory table with costs and cost savings related to the One In, One Out approach, as total estimates (not in unit costs). The report should also provide explanation of all abbreviations.

The Board notes the estimated costs and benefits of the preferred option(s) in this initiative, as summarised in the attached quantification tables.

(D) Conclusion **The DG may proceed with the initiative.** **If there are any changes in the choice or design of the preferred option in the final version of the report, the DG may need to further adjust the attached quantification tables to reflect this.**	
Full title	Revision of Commission Regulation (EU) 2019/1782 laying down ecodesign requirements for external power supplies (EPS) pursuant to Directive 2009/125/EC
Reference number	PLAN/2021/11755
Submitted to RSB on	18 March 2024
Date of RSB meeting	Written procedure

ANNEX: Quantification tables extracted from the draft impact assessment report

The following tables contain information on the costs and benefits of the initiative on which the Board has given its opinion, as presented above.

If the draft report has been revised in line with the Board's recommendations, the content of these tables may be different from those in the final version of the impact assessment report, as published by the Commission.

I. Overview of Benefits (total for all provisions) – Preferred Option		
Description	***Amount***	***Comments***
Direct benefits		
Environmental benefits	GHG emissions reductions: 70kt CO_2eq yearly[1] Energy consumption reductions: 2.45PJ yearly e-waste reduction: 4.65 tonnes yearly	Incentivising the unbundling of EPS brings the biggest influence as regard to the reduction of the extraction of resources, manufacture, transport, use and disposal of the chargers. Additional savings are due to the energy consumption related requirements. Certain energy losses are due to the additional USB receptacles and USB cable resistances.
Consumer benefits	Purchase cost reductions: €101mln yearly Electricity costs reductions: €33mln yearly Consumer convenience of being able to use interchangeably an EPS for multiple applications, or when replacing a product. Better quality of EPS due to durability requirements.	The interoperability and extended reliability of EPS will bring a reduction of the purchases of standalone EPS and cables. Tightened (average active efficiency, no-load losses) and newly introduced (low-load) minimum requirements reduce electricity costs, but slightly increase EPS costs.
Economic benefits	End-device manufacturers: €19mln yearly saved EPS costs.	Additional turnover for refurbishment businesses

[1] Yearly benefits change over time: Energy related impact reductions reach a maximum around 2035 and are declining thereafter due to the on-going decarbonisation of the EU electricity grid mix, whereas impact reductions due to interoperability reach their maximum towards the end of the forecast period in 2040; for these reasons benefits are stated as „up to" values

		(refurbishment of devices with lost EPS): No data
Indirect benefits		
Extended lifetime of end-devices	Not quantifiable	Broad availability of compatible replacements EPS in case of EPS defects

II. Overview of costs – Preferred option 9.6							
		Citizens/Consumers		Businesses		Administrations	
		One-off	Recurrent	One-off	Recurrent	One-off	Recurrent
(a) Measure on interoperability – M2b	Direct costs for EPS Direct cost for end-devices	With each new EPS and product purchase additional costs: - €1.50 for EPS redesigned for USB - €1 for USB cable - €0.60 for surge protection of the USB EPS - €0.60 - €2 for the USB compatibility of the end-device (for products re-designed for USB compatibility due to this regulation)	N/A	For manufacturers who already use USB Type C in the products in scope: N/A For manufacturers who do not use USB Type C in the products in scope: Costs to redesign the charging circuitry of the equipment (mitigated by a transition period) Savings on EPS costs in case device and EPS are	EPS redesigned, USB cable, surge protection. Loss of turnover by worldwide industries and retail channels in EU of € 600mln yearly compared to the baseline. Loss of revenue due to no further sales of over-priced proprietary replacement EPS.	Capacity for additional test requirements: negligible costs.	Not quantifiable New test requirements to verify claimed USB compatibility, but less product models in the market to be expected.

				unbundled (depending on output roughly €1–10 per device); initially additional EPS costs, if bundled, for USB vs. conventional EPS, cost increase expected to be absorbed by mass production synergies.			
	Indirect costs	N/A	N/A	N/A	Losses in turnover due to slightly less end-device sales (those, which would otherwise been replaced due to a defect EPS): Not quantifiable	N/A	N/A
(b) Measure on reducing energy consumption – M4a	Direct costs	Increased EPS costs €0.04 - 0.18 per unit in average	N/A	N/A	Increased EPS costs per unit: €0.04-0.18	N/A	Additional tests costs for low-load: negligible
	Indirect costs	N/A	N/A	N/A	N/A	N/A	N/A

(c) Action on durability of EPS – M6	Direct costs	Increased EPS costs €0.06 - 0.10 per unit in average due to higher lifetime electrolytic capacitors. The costs for detachable cables, i.e. additional USB-C receptacle and cable plug are not singled out and are considered under the measure on interoperability (M2b)	N/A	N/A	Increased EPS costs per unit: €0.06-0.10 Loss of turnover by worldwide industries and retail channels in EU of € 100mln yearly compared to the baseline	Capacity for additional test requirements: negligible costs	New test requirements to verify claimed lifetime (time consuming test procedure), test costs roughly in the range of €100 per unit to be expected
	Indirect costs	N/A	N/A	N/A	N/A	N/A	N/A
(d) Measure on externalisation of power circuitries of wireless chargers and single cell battery chargers – M5	Direct costs	Additional EPS costs, if separate EPS is purchased with battery charger: €5.00 (for cylindrical cell chargers). In the majority of cases use of an already existing EPS to be expected.	N/A	N/A	Additional costs on redesigning chargers for USB-compatibility, but also savings on bill-of-materials costs for chargers with (as of now) integrated AC-DC circuitry, might materialis	N/A	New market surveillance actions on battery chargers

					e as additional revenue.		
	Indirect costs	No significant changes to actual charger costs expected	N/A	N/A	N/A	N/A	N/A
(e) Action on stand-by requirements for wireless chargers – M4d	Direct costs	Increased wireless charger costs €0.15 per unit (average)	N/A	N/A	Increased wireless charger costs per unit: €0.15	N/A	New market surveillance actions on wireless chargers.
	Indirect costs	N/A	N/A	N/A	N/A	N/A	N/A

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Opinion

Title: Impact assessment / Review of ecodesign requirements for external power supplies

Overall opinion: NEGATIVE

(A) Policy context

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The product-specific legislation for external power supplies aims to ensure the placing on the market of technologies that reduce the life-cycle environmental impact of external power supplies and the elimination from the market of those products not meeting improved standards. This report assesses possible ways to update ecodesign requirements for external power supplies (EPS)

(B) Summary of findings

The Board notes the additional information provided and commitments to make changes to the report.

However, the Board gives a negative opinion because the report contains the following significant shortcomings:

(1) The report does not adequately define the problem the initiative intends to address, including in terms of scope, energy efficiency and interoperability. It is unclear on the magnitude of the problem and the regulatory and energy efficiency gaps to be covered. The relationship with the Radio Equipment Directive is not sufficiently elaborated.

(2) The logic of the intervention is not well established. The problems, problem drivers, objectives and options are not appropriately described, structured and linked, nor are policy trade-offs clearly presented. The policy objectives are not expressed in specific terms and do not reflect the legal constraint that measures need to be set at lowest life cycle consumer cost.

(3) The robustness of the analysis of impacts of specific measures and options is not properly demonstrated due to unclear assumptions and inadequate acknowledgment of uncertainties.

(4) The report does not provide an adequate comparison of options in terms of effectiveness, efficiency and coherence. The analysis lacks clarity on the applied scoring of different criteria and the overall methodology used in comparing the options. The choice of the preferred option is not adequately argued.

(C) What to improve

(1) The report must put the initiative in a clearer context of the revised EU energy efficiency target and the relevant recent policy initiatives. It should establish (and support with evidence) what the initiative can contribute to the achievement of that target. It should clearly explain the articulation with the revised Radio Equipment Directive and better discuss the issue of interoperability in the context of the "common charger initiative," and the regulatory gap that the initiative is intended to fill. The report should also better justify the need to act now given the imminent legislative adoption of the Ecodesign for Sustainable Products Regulation and the potential constraints of the existing ecodesign framework in appropriately addressing the problem. The problem and its drivers should be defined in a broader way to reflect the issue of interoperability of EPS which features prominently in the subsequent analysis. The definition of the problem needs also to cover issues related to the scope of the initiative adequately. The report should clearly explain the choice of products and explain why precisely some products – such as e bike chargers -are not included.

(2) The redefined problems should closely link to better specified objectives. The objectives should be defined in a way that provides clear criteria to compare the options, be measurable so as to establish success criteria, and reflect any potential trade-offs between the environmental gains and consumer savings deriving from the ecodesign legal framework, in particular the legal constraint that measures need to be set at lowest life cycle consumer cost. The structure of options considered in the report should be fundamentally reviewed, simplified and the distinction made between measures and options, with all appropriate options defined and described in sufficient detail upfront, including a clear explanation of the concrete content. This is in particular the case for measures on active average efficiency, interoperability and wireless chargers. The report should justify more coherently why some of the options are discarded from further analysis, including more ambitious measures on stricter efficiency limits. All retained options should be analysed in a comprehensive way, including all the measures which should be described in detail, including for newly covered issues such as wireless chargers.

(3) As the impacts of specific options rely to a large extent on the reaction of consumers to interoperability and the uptake by manufacturers of the voluntary unbundling, the report should clearly present what assumptions were used for these two issues and corroborate them with available evidence. As the behavioural aspects are associated with significant uncertainty (which should be acknowledged more explicitly), the report should provide sensitivity analyses with respect to those two key assumptions. The report should also clearly distinguish the impacts of the options on competitiveness, in particular on manufacturers located inside the EU as opposed to third country producers. It should better assess the impacts on innovation and how future proof the options are.

(4) The report should restructure the impact analysis so that it follows the revised option design. The modelling should be updated with the most recently available evidence and the calculation errors should be eliminated. The report should provide estimates of overall costs rather than only unit costs (including in the context of the 'one in, one out' approach cost estimates). It should also clarify how it uses the concepts of consumer and societal welfare and societal life cycle costs in the analysis.

(5) The comparison of options should be revisited, following the restructuring of options and redefining the objectives. The retained options should be compared against the baseline as regards their effectiveness, efficiency, coherence, and proportionality, clearly applying the relevant criteria and the constraints from the ecodesign framework. The performance of options regarding lowest life cycle consumer cost should be synthetically folded into the effectiveness and efficiency assessments in line with the revised specific objectives. Coherence of the options should be assessed both within the instrument and with respect to other EU policies rather than third-country technical standards. The comparison should clearly present trade-offs reflected in the choice of options. The choice of the preferred option should be argued based on significantly reviewed comparison of options. This should include a clear explanation on the choice of the scoring system used to compare options and the methodology behind the applied rankings. Whatever the methodology to compare options is used, it must be supported by the analysis presented in the report.

Some more technical comments have been sent directly to the author DG.

(D) Conclusion

The DG must revise the report in accordance with the Board's findings and resubmit it for a final RSB opinion.

Full title	**Revision of Commission Regulation (EU) 2019/1782 laying down ecodesign requirements for external power supplies (EPS) pursuant to Directive 2009/125/EC**
Reference number	PLAN/2021/11755
Submitted to RSB on	27 September 2023
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