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Progress on the development of new UN GTRs and of amendments to established UN GTRs

Proposal for request for authorization to develop a new UN GTR on in-vehicle battery durability for electrified heavy-duty vehicles

Submitted by the representatives of Canada, China, Japan, The United Kingdom of Great Britain and Northern Ireland, the United States of America and the European Commission *

The text reproduced below was adopted by the Working Party on Pollution and Energy (GRPE) at its eighty-seventh session (ECE/TRANS/WP.29/GRPE/87, para. 75). It is based on ECE/TRANS/WP.29/GRPE/2023/8. It is submitted to the World Forum for Harmonization of Vehicle Regulations (WP.29) and to the Administrative Committee (AC.3) for consideration at their June 2023 sessions.

* In accordance with the programme of work of the Inland Transport Committee for 2023 as outlined in proposed programme budget for 2023 (A/77/6 (Sect.20), para 20.6), the World Forum will develop, harmonize and update UN Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.



I. Mandate and objectives

1. In the framework of the 1998 Agreement and under continued work by the informal working group (IWG) on Electric Vehicles and the Environment (EVE), the main objective of this proposal is to seek authorization for the IWG on EVE to begin a new mandate, specifically to develop a new UN GTR on the topic of in-vehicle battery performance and durability of electrified heavy-duty vehicles.

II. Introduction

2. The IWG on EVE presented a draft status report to GRPE in May 2019 on the work on the method of stating energy consumption and research on in-vehicle battery durability and performance. The status report indicated that there is sufficient information to allow a UN GTR for in-vehicle battery durability to be started. EVE recommended at the 79th GRPE in May 2019 that the UN GTR on in-vehicle battery durability be developed under a new mandate. The work on this GTR has since been completed in UN GTR No. 22.

3. In November 2021 the IWG on EVE presented to GRPE an updated terms of reference (GRPE-84-10) which included a new task to evaluate how to implement the in-vehicle battery durability UN GTR (UN GTR No. 22) through a heavy-duty vehicle lens.

4. In September 2022, at the 57th meeting of the IWG on EVE in Brussels, the IWG on EVE determined a way forward for a preliminary UN GTR on heavy duty vehicles.

III. Areas of work

5. The IWG on EVE will draft a new UN GTR which will focus on an in-vehicle durability procedure for heavy duty vehicles. This UN GTR will largely be based on UN GTR No. 22 with necessary modifications made to consider heavy-duty electrified vehicles.

IV. Existing regulations

6. Currently there are no existing UN GTR's where the in-vehicle battery durability is considered for heavy-duty classed vehicles. UN GTR No. 22 which regulates in-vehicle battery durability of light duty vehicle types, sets the initial format considered for this UN GTR.

V. Timeline

7. The timelines proposed below for the new mandate are target timelines. The plan will be regularly reviewed and updated to reflect progress and feasibility of the timeline.

- (a) January 2023: Request for authorization submitted to GRPE.
 - (b) June 2023: Request for authorization considered by WP. 29 and AC.3.
 - (c) January 2024: the IWG on EVE provides a status update and draft copy of the development of the durability UN GTR on heavy-duty vehicles as an informal document for further discussion and recommendation. The IWG on EVE provides updates on future framework for future heavy duty vehicle related durability UN GTR decisions.
 - (d) June 2024: IWG on EVE provides a draft UN GTR to the June 2024 meeting of GRPE as a working document.
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