

## **GRPE emission items list**

### **Note by the Chair and secretariat**

The draft text reproduced below was prepared by the Chair of GRPE and the secretariat in order to collect topics relevant to GRPE for the future. The GRPE emission items list will remain a living document with new items added or removed according to the expressions of interest from GRPE. This document is aimed at GRPE stakeholders only. The GRPE emission items list (GRPE-80-04-Rev.1) feeds the "Priorities and Work by GRPE" document (GRPE-80-05) that WP.29/AC.2 might use to set priority and allocate resources within WP.29 and its subsidiary bodies. Both documents are expected to be further discussed and endorsed by GRPE during the next session in January 2020 and the "Priorities and Work by GRPE" document (GRPE-80-05) will be shared with WP.29 stakeholders for a consideration in March 2020.

## Draft Proposal for the definition of WP.29 work priorities by GRs: example for GRPE

1. The tables below are focusing on pollution and energy. This document does not address the delivery mechanisms under one or more Agreements managed by WP.29 for topics stated in Table 2. GRPE is committed to deliver technical provisions suitable for all Contracting Parties.
2. Table 1 below is containing the on-going work occurring at GRPE and its IWGs.
3. Table 2 contains medium and longer term which CPs should consider for future work.

Table 1  
**On-going work activities related to pollution and energy**

<i>Title</i>	<i>Deadline for working document(s) to GRPE</i>	<i>Leads</i>	<i>Deliverables</i>	<i>Comments</i>
Global Real Driving Emissions (RDE)	Q2 2020	IWG on RDE	UN GTR .	To be accompanied or followed by UN Regulation reflecting legislation already available at the CPs of the 58 Agreement.
Worldwide light duty test procedure (WLTP)	Q2 2020  Q1 2020	IWG on WLTP	Many UN GTR activities on going (Q2 2020): - Low temperature test - OBD - other pending items  as part of transposition to UN Regulation on WLTP (Q1 2020): - Conformity of Production - Reference Fuel - Emission Limits - Durability	IWG Mandate expiring in June 2020
Determination of Electrified Vehicle Power (DEVP)	Q2 2020	IWG on EVE	UN GTR work under development	New timeline announced in GRPE 79. IWG Mandate expiring in June 2021
In Vehicle Battery Durability	Q2 2021 (to be confirmed)	IWG on EVE	UNR and/or UN GTR	Way forward still to be decided. Some CPs requested regulatory provisions.
Sub-23 nm exhaust particles	Q2 2020	IWG on PMP	changes to both UNR WLTP and UN GTR No. 15	Timeline shortened to fit post Euro6/VI EU requirements. IWG Mandate to be extended to June 2021
Brake	Q2 2021	IWG on	to be confirmed	About half of the work concluded.

emissions		PMP		Work progress according to schedule
Method for stating energy consumption / emissions from EVs	tbd	IWG on EVE	to be confirmed	Discussions on-going to find best way forward and work distribution between IWG on EVE and the Group of Expert on Energy Efficiency (GEEE) from the UNECE Sustainable Energy Division under development.
OBD-2 for L Category vehicles	Q2 2020	IWG on EPPR	Amendment to UN GTR No. 18	
Revision on M.R.3 concerning VIAQ	Q2 2020	IWG on VIAQ	Mutual Resolution No.3 revision	
Transposition to Euro VI step E	Q1 2020	GRPE	Introduction to PEMS cold start and PN-PEMS measurement to UN Regulation No. 49	

Table 2  
**Potential future activities related to pollution and energy**

<i>Title</i>	<i>Time horizon</i>	<i>Leads</i>	<i>Objectives</i>
Lifetime compliance: In-Service Conformity, in use compliance and beyond	Medium term	GRPE / IWG on PTI	Ensure adequate and long-lasting environmental performance of vehicles: - In-Service Conformity (ISC) / durability provisions - PTI tests - On-Board Measurements and monitoring - Tampering prevention (e.g. NOx emulator, DPF removal...)
Lifecycle emissions	Medium/Long term	GRPE	Tackling overall emissions from vehicles manufacture and its use: - WTW emissions of energy to power the vehicles, - Emissions during production of vehicles - Recyclability / Emissions during disposal of the vehicle
Non-regulated Emissions	Medium term	GRPE	Include non-regulated pollutant into emissions regulations, if appropriate
Technology- and fuel-neutral test procedure and emission limits	Medium term	GRPE	Harmonize test procedures and emission limits for all fuel types, engine technologies and energy sources
Tyre wear emissions	Medium term	IWG on PMP / GRBP ?	Develop methodology to characterize (PN, other?) emissions from tyre wear
Heavy Duty Hybrids	Medium term	GRPE	Introduction of approval provisions in UNR 49 and possible Amendments to UN GTR No. 4
Hydrogen-powered Heavy Duty	Medium term	GRPE	Introduction of approval provisions in UNR 49
Powertrain definitions	Medium term	GRPE	Develop a more regular and systematic framework for the update of Mutual Resolution No. 2 Containing Vehicle Propulsion System Definitions
Replacement after-treatment systems	Medium term	GRPE	Amendments to UN Regulation No. 103
GHG emissions / Fuel/energy consumption standard measurement methodology	Medium / Long term	GRPE	- Harmonization of various existing methodology for GHG emissions / fuel/energy consumption standard approaches 1 – for heavy duty vehicles 2 – for light duty vehicles 3 – for other vehicle categories - Harmonization of the approaches for real life fuel/energy consumption monitoring

<i>Title</i>	<i>Time horizon</i>	<i>Leads</i>	<i>Objectives</i>
Consumer Information	Long term	GRPE	Consumer information about energy consumption / GHG and pollutants, range.  Driver assistance features to reduce emissions, eg. Eco-driving,
Connected, automated and autonomous vehicles and the environment	Long term	GRPE / GRVA	Using vehicle connectivity, automation and self-driving capabilities to minimize environmental impact of vehicles and associated activity.
<b>Geo-Fencing</b>	<b>Short/ Medium</b>	<b>GRPE / EVE</b>	<b>Putting in place automatic location recognition system to force electric mode of OVC-HEV in certain geographical areas, eg. city centers</b>
Simplification emissions regulations	Long term	GRPE	Legislative improvement and increased efficiency for approval, CoP, ISC tests to simplify test protocols to improve the deployment and enforcement for all contracting parties.