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**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *Title* | *Deadline for working document(s) to GRPE* | *Leads* | *Deliverables* | *Comments* |
| 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 itemsas 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 emissions | Q2 2021 | IWG on PMP | to be confirmed | About half of the work concluded. 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**

| *Title* | *Time horizon* | *Leads* | *Objectives* |
| --- | --- | --- | --- |
|  |  |  |  |
| 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 vehicles2 – for light duty vehicles3 – for other vehicle categories- Harmonization of the approaches for real life fuel/energy consumption monitoring |
| 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. |
| **Geo-Fencing** | **Short/Medium** | **GRPE / EVE** | **Putting in place automatic location recognition system to force electric mode of OVC-HEV in certain geographical areas, eg. city centers** |
| 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. |