

## GRPE emission items list

### Note by the Chair and secretariat

This GRPE emission items list contains topics to potentially be explored on the medium and longer term which CPs might want to consider for future activities at GRPE. It is an update of Table 2 from GRPE-80-04-Rev.1.

Table 1

#### 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:<br>- In-Service Conformity (ISC) / durability provisions<br>- PTI tests<br>- On-Board Measurements and monitoring<br>- Tampering prevention (e.g. NOx emulator, DPF removal...)   |
| 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  |
|  |                     |                   |   |
| Heavy Duty Hybrids   | Medium term         | GRPE              | Introduction of approval provisions in UNR 49 and possible Amendments to UN GTR No. 4   |
| 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 | Long term           | GRPE              | - Harmonization of various existing methodology for GHG emissions / fuel/energy consumption standard approaches<br>1 – for heavy duty vehicles<br>2 – for light duty vehicles<br>3 – for other vehicle categories<br><br>- Harmonization of the approaches for real life fuel/energy consumption monitoring |

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|--|---------------------|--------------|---|
| Consumer Information   | Long term           | GRPE         | Consumer information about energy consumption / GHG and pollutants, range.<br><br>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/<br>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. |
| Trailer cooling equipment / power assistance                     | Long Term           | GRPE         | Emissions of trailers that are cooled or electrically powered or power-assisted   |