Proposal for the Terms of Reference of the Informal Group on Heavy-Duty Hybrids (HDH)

- 1. The objective of the informal group on HDH (Heavy-Duty Hybrids) is to establish an amendment to Global Technical Regulation (gtr) No. 4 (WHDC) with respect to pollutant emissions and CO₂ emission from heavy duty hybrids under the 1998 Global Agreement.
- 2. To fulfil this objective the informal group shall, as a first step, investigate the HILS (Hardware-in-the-Loop) approach, which starts from the vehicle speed pattern of the WHVC vehicle cycle and simulates powertrain and vehicle components to result in a hybrid specific engine cycle for pollutant emissions and CO₂ testing and measurement, and which allows using the test cell environment, data evaluation procedures and emissions calculations specified in gtr No. 4.
- 3. Upon completion of the first step, the informal group might consider, as a second step, a chassis dyno test procedure, as an alternative to HILS, which needs specifying new requirements with respect to test cell environment, data evaluation procedures and emissions calculations.
- 4. The informal group shall submit the milestones, the roadmap and the necessary budget for step 1 of the future work program to GRPE for consideration, at its 61st session in January 2011.
- 5. The informal group shall submit the final report of the investigation on HILS for consideration to GRPE at its 65th session in January 2013.
- 6. The target completion date for the work of the informal group on HILS shall be the 163rd session of WP.29 in June 2014.
- 7. This target completion date and the necessity of a chassis dyno test as a second step will be reviewed by WP.29 at its 160th session in June 2013 taking into account the assessment by GRPE of the final report on HILS.

Proposal for Rules of Procedure

- 1. The informal group is open to all participants of GRPE. A limitation of number of participants from any country and organization to participate in the informal group is actually not foreseen.
- 2. A Chairperson and a Secretary will manage the informal group.
- 3. The official language of the informal group will be English.
- 4. All documents and/or proposals shall be submitted to the Secretary of the group in a suitable electronic format, preferably in line with the ECE guidelines in advance of the meetings. The group may refuse to discuss any item or proposal which has not been circulated 5 working days in advance of the scheduled meeting.
- 5. An agenda and related documents will be circulated to all members of the informal group in advance of all scheduled meetings.
- 6. The work process will be developed by consensus. When consensus cannot be reached, the Chairperson of the informal group shall present the different points of view to GRPE. The Chairperson may seek guidance from GRPE as appropriate.
- 7. The progress of the informal group will be routinely reported to GRPE orally or as an informal document by the Chairperson or the Secretary.
- 8. All working documents shall be distributed in digital format. A specific HDH website will be created and the URL will be noticed to all related parties.

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