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**Economic Commission for Europe**

Inland Transport Committee

**World Forum for Harmonization of Vehicle Regulations****Working Party on General Safety Provisions****104<sup>th</sup> session**

Geneva, 15–19 April 2013

Items 7 and 8 of the provisional agenda

**Regulation No. 67 (Equipment for liquefied petroleum gases (LPG)) and  
Regulation No. 110 (Specific equipment for CNG)****Proposal for amendments to Regulations Nos. 67 and 110****Submitted by the expert from the European Association of Automotive  
Suppliers \***

The text reproduced below was prepared by the expert from the European Association of Automotive Suppliers (CLEPA) to introduce into Regulations Nos. 67 and 110 type approval provisions for electronic control units (ECUs). The modifications to the existing text of the Regulation are marked in bold characters.

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\* In accordance with the programme of work of the Inland Transport Committee for 2010–2014 (ECE/TRANS/208, para. 106 and ECE/TRANS/2010/8, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

## **I. Proposal for amendments to Regulation No. 110**

*Insert a new paragraph 17.1.2.1., to read:*

**"17.1.2.1. Notwithstanding the provisions of paragraph 17.1.2., if the CNG demand control is integrated into the engine electronic control unit and is covered with a vehicle installation type approval according to Part II of this Regulation and to Regulation No. 10, no separate type approval of the electronic control unit is necessary. The vehicle type approval shall also be pursuant to the applicable provisions laid down in Annex 4H of this Regulation."**

## **II. Proposal for amendments to Regulation No. 67**

*Insert a new paragraph 17.1.2.1., to read:*

**"17.1.2.1. Notwithstanding the provisions of paragraph 17.1.2., if the LPG demand control is integrated into the engine electronic control unit and is covered with a vehicle installation type approval according to Part II of this Regulation and to Regulation No. 10, no separate type approval of the electronic control unit is necessary. The vehicle type approval shall also be pursuant to the applicable provisions laid down in Annex 14 of this Regulation."**

## **III. Justification**

1. In general, engine control units (ECUs) of original equipment manufacturers (OEM) can only be operated in the specific vehicle environment for which they are designed and calibrated. Therefore, ECUs for gasoline and diesel vehicles are only type approved in a vehicle installation during vehicle type approval. There is no need for a separate ECU type approval, as is currently required for specific ECUs designed for compressed natural gas (CNG) or for LPG. OEM ECUs which contain CNG functionality (for mono- or bi-fuel gas vehicles) should be type approved like OEM ECUs for gasoline and diesel vehicles. The proposed amendment introduces the type approval of an OEM ECU which contains CNG functionality during the vehicle type approval.

2. The type approval according to Regulation No. 10 is mandatory for any ECU. According to paragraph 4.1.1.1. of that Regulation, an ECU type approval is possible within a vehicle installation approval.

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