



Discharge speed requirement OVC-HEV with an operating mode switch

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Discharge speed requirements of OVC-HEV with an operating mode switch.

Purpose	Reg.	Condition	Annex+Paragraph	Discharge		Stop criterion
				70 % ± 5 % of <u>max. 30-min speed</u>	70 % ± 5 % of <u>max. speed</u> (pure electric <u>max. speed</u>)	e.g. 65 % of <u>max. 30-min speed</u>
Electric range	R101	A	Annex 9, §4.1.1.3.2. + §4.1.1.3.3.	x		x
CO2, fuel and electric energy consumption	R101	A	Annex 8, §4.2.2.1.	Proposal: may be used	x	x
CO2, fuel and electric energy consumption	R101	B	Annex 8, §4.3.4 (→ §4.2.2.1.)			
Emissions test procedure	R83	A	Annex 14, §3.2.2.2.	x		X
Emissions test procedure	R83	B	Annex 14, §3.2.3.2. (→ §3.2.2.2.)			



Is it the intention to use different speeds for discharging and stop criteria?



Preconditioning of UN Regulation No. 101 is different to UN Regulation No. 83



Proposal and Justification

Proposal

Annex 8, Paragraph 4.2.2.1 of 01 series; amend to read:

"4.2.2.1. The electrical energy/power storage device of the vehicle is discharged while driving with the switch in pure electric position (on the test track, on a chassis dynamometer, etc.) at a steady speed of 70 per cent \pm 5 per cent of the maximum speed of the vehicle in pure electric mode, which is to be determined according to the test procedure for electric vehicles defined in Regulation No. 68. **At the request of the manufacturer a steady speed of 70 per cent \pm 5 per cent of the maximum thirty minutes speed of the vehicle in pure electric mode may be applied.**

Stopping the discharge occurs:

- (a) When the vehicle is not able to run at 65 per cent of the maximum thirty minutes speed; or
- (b) When an indication to stop the vehicle is given to the driver by the standard on-board instrumentation, or
- (c) After covering a distance of 100 km.

If the vehicle is not equipped with a pure electric mode, [...]"

Justification

1. The discharge speed (70 per cent \pm 5 per cent of the **maximum speed**) requirement for Condition A and B of OVC-HEV with an operating mode switch in Annex 8 "Method of measuring the emissions of carbon dioxide, fuel consumption and the electric energy consumption of vehicles powered by a hybrid electric power train" in the 01 series of UN Regulation No. 101 does not fit to one of its stop criteria (65 per cent of the **maximum thirty minutes speed**).
2. The discharge speed and speed stop requirement for condition A of OVC-HEV with an operating mode switch in Annex 9 "Method of measuring the electric range of vehicles powered by an electric power train only or by a hybrid electric power train", paragraphs 4.1.1.3.2. and 4.1.1.3.3. of the 01 series of amendments of UN Regulation No. 101 and for condition A and B OVC-HEV with an operating mode switch in Annex 14 "Emissions test procedure for hybrid electric vehicles (HEV)", paragraphs 3.2.2.2. and 3.2.3.2. of the 06 and 07 series of amendments of UN Regulation No. 83 are both referring to the maximum thirty minutes speed.
3. The preconditioning requirement of UN Regulation No. 101 and UN Regulation No. 83 are harmonized with this proposal.