Japan Proposals on UBE/UBC measurement

prepared by Japan

@EVE64

19th & 20th September 2023

(shear this item at day 2)

Japan Proposals on UBE/UBC measurement

1. Add new criteria under the Part A family definition
   - same measurement parameter
   - same measurement procedure
     (to avoid manipulating the Part A verification program)

2. Matrix of measurement procedure and parameter

Cases	Procedure		Parameter	Measurement device	
	main	alternative		Voltage	Ampere
with bidi charger function	cycle repetition + constant C-rate by bidi-charger	chassis dynamometer testing	discharge UBE	external or on-board sensor after demonstrating the equivalency with external device	external
			discharge UBC	NA (in case of difficulty to measure voltage)	
without bidi charger function	[on-road driving with multiple steady speed conditions (e.g. 60/80/100/120 km/h)]	chassis dynamometer testing	discharge UBE	external or on-board sensor after demonstrating the equivalency with external device	external
			discharge UBC	NA (in case of difficulty to measure voltage)	

Comments and/or Feedbacks on EVE-64-07 (by OICA)

Slide #	messages	Japan Comments and/or Feedbacks
2	request flexibility for UBE/UBC selection	not able to support ➢ against JPN position (should not be optional) ➢ no technical observation/evidence is provided
3	assuming propose "charge test procedure" ?	if so, not able to make a comment due to extremely lack of necessary information
4 ~ 7	FCE parameter instead of distance	propose to delete at this stage ➢ GTR is not able to apply FCE without specific threshold (at least, OICA should provide the methodology how to determine the threshold)
8 ~ 10	?	hard to figure out without further explanation e.g. simulation detail, definition of "new" and "aged" battery, …
11 ~ 14	request flexibility for test procedure	OK with approval by technical authorities and same procedure shall be applied during homologation and ISC
15 ~ 21	difficulty to obtain accurate results during discharge ?	not able to support, only message JPN recognizes is that on-board voltage sensor is not accurate enough to use ➢ a bunch of non-engineering comments and/or analysis e.g. "significant impact of payload/route" for only energy ? Why ? "very difficult to reach same SOC min level", → under this situation, why charge capacity/energy is going to be stable ? "non-accurate results by using non-accurate sensor ?", this not the engineering test…

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Slide #	messages	Japan Comments and/or Feedbacks
22	conclusions	1. delete at this stage 2. “dominating” ? so what ? 3. hard to understand the message 4. please refer slide#1