“HD Battery Durability GTR” Discussion Points and Japan Positions (1)

PURPLE : updated 2024.2.17

Draft GTR	items	Japan* Positions (* : excluding JAMA)	Justifications
Definition, Annex3 3.2.6.4.	Cut-off voltage	delete	✓ authorities/3rd parties are not able to verify its correctness → inappropriate as a test procedure
Definition,	equivalent full cycles	delete at this stage	✓ more discussion is necessary ✓ seems to be inappropriate parameter for durability evaluation
Table 1~5	energy counter	accept if monitoring purpose	✓ one of useful data for future discussion
	energy counter parameter	accept for energy throughput delete equivalent full cycles at this stage	✓ “energy throughput” can cover “equivalent full cycles” for future discussion
	MPR per categories	no concrete proposal (follow IWG decision)	✓ possess no technical evidence at this stage
5.2.	virtual distance vs total km	either formula is OK but need verification process (Part C) of “total discharge energy while driving” and “total discharge energy during V2X +PTO+… or total discharge energy“	✓ same logic as GTR#22

General : test operation mode is no longer necessary under the Method 1a/1B

“HD Battery Durability GTR” Discussion Points and Japan Positions (2)

PURPLE : updated 2024.2.17

Draft GTR	items	Japan Positions (* : excluding JAMA)	Justifications
6.1.1.	Part A family	(e) : add “if fast charge is applied” (f) : if (c) covers type of battery – Ni-MH, Li-ion, Solid, etc, OK as it is (g) : if method 2 became optional, no longer necessary	✓ not necessary if only normal charge is accepted during charge process ✓ just confirmation
6.1.2.	Part B family	(g) : should be in-line with Part A family description (e)	✓ avoid confusion
6.3.2.	Vehicle selection	appreciate for incorporating the proposal and slightly modified Homologation : move to Annex3 ISC : modified the description	✓ should procure the test vehicles from the variety of category to avoid manipulation
6.5.	Part C	depend on application of either “virtual distance” or “total km”	✓ to avoid mis-use

“HD Battery Durability GTR” Discussion Points and Japan Positions (3)

PURPLE : updated 2024.2.17

Draft GTR	items	Japan Positions (* : excluding JAMA)	Justifications
Annex 1 Vehicle Survey	dynamic charging technology	need further explanation why this criteria is added for our decision (delete or keep)	✓ may be beneficial to verify the robustness of SOCE algorithm ✓ these vehicles are still valid for Part B
Annex 3 Para. 1	optional usage of UBC	withdraw	✓ no technical evidence/observation is available to determine the appropriate MPR for UBC
Para. 2	Test vehicle	move parts of para. 6.3.2. description (test vehicle) to here	✓ better position
Para. 2.1.	order of test method	current : bidi → test track → on road proposal : test track → on road → bidi	✓ Japan proposes “bidi” should be one of optional methods since “bidi” is minority in EU and has discharge power limitation in JPN
Para. 2.2.2.	measurement frequency	Room temperature : at least 0.033Hz Voltage/current : at least 20Hz	✓ In-line with other GTRs (i.e. #15)
	Electrical power/ Discharge rate/ Bidirectional charger…	delete	✓ can be covered by voltage and current measurement
Para. 3.	test procedure	Method 1a : base, Method 1b : regional option, Method 2 : optional with restriction, CDY : regional option	✓ Method 1b : Japan has a difficulty to apply under current regional law ✓ Method 2 : minority in EU, should have capability to duplicate Method 1a/1b discharge rate

“HD Battery Durability GTR” Discussion Points and Japan Positions (4)

PURPLE : updated 2024.2.17

Draft GTR	items	Japan Positions (* : excluding JAMA)	Justifications
Annex 3 3.1.1.4 3.2.4.	initial setting of REESS	accept to omit as a manufacture option →keep as it is, no option is allowed	✓ JPN supports current text for robust test procedure <in case that OICA propose to omit> OK but it shouldn’t be an option for fair requirement
3.1.1.5. 3.2.5.	soak	accept to omit as a manufacture option →keep as it is, no option is allowed	✓ JPN supports current text for robust test procedure <in case that OICA propose to omit> OK but it shouldn’t be an option for fair requirement
3.1.1.6.1. 3.2.6.1.	Monitored parameter	can be deleted	✓ As long as testing is performed under the regional speed range, these information is no longer valid for test validity
3.1.1.6.3. 3.2.6.3.	charge rate	What does it mean by “the highest normal charging power available” ? charge station or vehicle specification?	✓ make the text more robust to avoid mis-interpretation
3.1.1.6.4.	tolerance in final segment	-7 km/h (if US prefers mph, -8 km/h ≒ 5 mph is also OK)	✓ lower speed leads less UBE fluctuation within same Part B family
	UBE_{charge}	delete	✓ Authorities (EC, US EPA and JPN) are interested in vehicle performance during the discharge event rather than charge event

“HD Battery Durability GTR” Discussion Points and Japan Positions (5)

PURPLE : updated 2024.2.17

Draft GTR	items	Japan Positions (* : excluding JAMA)	Justifications
Annex3 3.1.1.6.5. 3.2.6.5.	repetition of test	(1) repetition of single vehicle test ? or (2) repetition of test on different test ? if (2), A3/4 flow chart need to be modified	✓ avoid confusion
3.1.2.	on road testing	no strong position (might be essential to be in-line with 1a)	✓ Japan regional law does not allow the vehicle driving prior to registration
3.2.6.4.	discharge rate	discharge rate by using “bidi” should be within a range to duplicate the regional characteristic speeds and payload, no need to be constant	✓ to be in-line with Method 1
	break-off criteria	4 second rule same as Method 1a Japan does not accept the “cut-off voltage” criteria	✓ to be in-line with Method 1 ✓ authorities/3rd parties are not able to verify its correctness → inappropriate as a test procedure
	UBE measurement during charge event	should be deleted	✓ Japan (and EC, USEPA) is interested in vehicle performance during the discharge event rather than charge event