41st WLTP Sub Group EV Meeting	
Date	28 April 2020
Time	9:00 to 12:15 CEST
Title	41st WLTP Sub Group EV Meeting – Minutes
Location	Web-Audio

0	**Revision & adoption of meeting minutes & agenda**
	- Meeting minutes of web-audio meeting on 8 April 2020 01_WLTP SG EV & LowT TF Minutes 8 April 2020.pdf → adopted - Adoption of the agenda 00_WLTP SG EV Agenda 28 April 2020.pdf → adopted
1	**GTR#15 Amd#6 WD: SG EV square brackets topics (Low Temp → EV_LT_#)**
	Square bracket topics in GTR#15 Amd#6 WD related to Low Temp The discussion and conclusion of remaining square bracket items was based on the latest version of the following document *(managed and updated by the drafting coordinator Rob Gardner)*: ***20xxyy - GTR15 Amnd 6 - updates for Informal to amend GRPE-2020-14e.docx*** to be found in the UNECE wiki area: GTR15 Amnd 6 Drafting An overview list of the remaining square bracket items to ease the discussion and conclusion within SG EV was given in the following document (EV related Low Temp topics are labelled "EV_LT_#"): ***20xxyy_Status Square bracket topics_Amd#6 WD.xlsx*** to be found in the UNECE wiki area: Optional annex Low T - Drafting
1.1	***GTR#15 Amd#6 WD: OVC-HEV & PEV battery charging***
	EV_LT_27 / EV_LT_35 / EV_LT_38: In order to confirm the understanding of the agreement during WLTP-30 on OVC-HEV and PEV battery charging, Matthias Nägeli (co-TS) presented an overview of it to the group (200428_Battery charge operation_SG EV agreed.xlsx). Bart Thedinga (EC) stated that this overview reflects well the agreement, but from the EC's point of view, for batteries without pre-heating functions, there is either the option of physically unplug the battery, or remain plugged in and continue the E_{AC} measurement. Nick Ichikawa (co-TS, JASIC) mentioned to be personally in agreement with the EC's proposal, but will consult within JAMA and JPN and come back with feedback until 18 May 2020. Since there is not a large difference to the original proposal he suggested to proceed with the drafting text development as discussed in this meeting. The overview of battery charging as agreed during WLTP-30 including the comments received in this meeting is reflected in this modified document (revision 1):

	Updated document: 200428_Battery charge operation_SG EV agreed_rev1.xlsx Furthermore, Matthias Nägeli (co-TS) introduced a drafting text proposal for battery charging (200416_WLTP-30-06_-_ECE-TRANS-WP29-GRPE-2020-14e_Charging_EV_LT 27_EV LT 35_EV LT 38_rev4.docx). The input from Bart Thedinga (EC) concerning unplugging/keeping plugged in the battery (see above) can be included in paragraph 6.1. of the draft text. During the introduction of the drafting text proposal it became clear that there are also a few more square bracket topics linked to and treated with this text. Therefore, a new document version was uploaded after the meeting in order to reflect all the square bracket topics included by this text proposal: *Updated document:* 200428_Proposed draft text for EV_LT_(6 8 9 10 27 29 34 35 36 38).docx Nick Ichikawa (co-TS, JASIC) proposed to develop the final wordings via E-Mail, scrutinize it and then propose a final text to the SG EV.
1.2	***GTR#15 Amd#6 WD: EV Low Temp Family concept***
	EV_LT_1 / EV_LT_2 / EV_LT_14 / EV_LT_17 / EV_LT_18 / EV_LT_20 / EV_LT_39 Matthias Nägeli (co-TS) presented a concept for Low Temp family application. The initial explanation slides provided in advance of this meeting (200420_EV_Low Temp Family explanation slides.pptx) were further updated with feedback from OICA and an updated version is now available also including comments and clarifications during this meeting (revision 1): *Updated document:* 200428_EV_Low Temp Family explanation slides_for SG EV_rev1.pptx Bart Thedinga (EC) indicated to internally discuss and scrutinize the proposal and come back to the group with feedback on it. Furthermore, a drafting text proposal for this topic was made available in advance of this meeting as well (200416_WLTP-30-06 - ECE-TRANS-WP29-GRPE-2020-14e_Low Temp EV family_rev7.docx). In order to reflect all square bracket topics included by this text proposal, a new document version was uploaded after the meeting: *Updated document:* 200428_Proposed draft text for EV_LT_(1 2 14 15 16 17 18 19 20).docx
1.3	***GTR#15 Amd#6 WD: remaining topics EV_LT_#***
	Further remaining open topics (EV_LT_#) were discussed and a considerable amount of conclusions could be reached in this meeting. Comments and final conclusions were included in the latest version of the overview list of the remaining square bracket items: ***20xxyy_Status Square bracket topics_Amd#6 WD.xlsx*** to be found in the UNECE wiki area: Optional annex Low T - Drafting

2	**GTR#15 Amd#6 WD: SG EV square brackets topics (non Low Temp → A…E)**

Square bracket topics in GTR#15 Amd#6 WD **not** related to Low Temp

The discussion and conclusion of remaining square bracket items was based on the latest version of the following document *(managed and updated by the drafting coordinator Rob Gardner)*:

20xxyy - GTR15 Amnd 6 - updates for Informal to amend GRPE-2020-14e.docx to be found in the UNECE wiki area: GTR15 Amnd 6 Drafting

Overview presentation of square bracket topics to be agreed upon (slides 3 to 6)
200420_Overview square brackets_SG EV_GTR15Amd6.pdf

See also overview table in document ***20xxyy_Status Square bracket topics_Amd#6 WD.xlsx*** to be found in the UNECE wiki area: Optional annex Low T - Drafting

Discussion/conclusion on topics:

(1) Proposal 1 in the context of the CO2 correction factor application of NOVC-HEVs *(generic approach; slide 3, topic B)*

An academic explanation from ACEA EV (as requested by JPN) will be provided by 14 May 2020 (next SG EV web-audio meeting).

→ no final conclusion yet

(2) Proposal 2 in the context of the CO2 correction factor application of OVC- and NOVC-HEVs *(K_{CO2} correction factor family; slide 4, topic D)*

Nick Ichikawa (co-TS, JASIC) asked to keep this point open.

→ no final conclusion yet

(3) Expected number of cycles in CD mode for OVC-HEV *(slide 5, topic C)*

An updated proposal by ACEA EV including the feedbacks from EC and JPN will be provided by 14 May 2020 (next SG EV web-audio meeting).

→ no final conclusion yet

(4) CD fuel efficiency calculation in case of pure electric CD cycles *(slide 6, topic E)*

Matthias Nägeli (co-TS) introduced this topic that was identified in addition and a proposal for a solution was made available for this issue (200424 Topic EV (E) - FECD Calculation_draft text of required additions_input from MaN(Co-TS).docx).

Nick Ichikawa (co-TS, JASIC) mentioned that the statement about the term "999 km/L" is not appropriate to be described in the GTR and therefore suggested to remove it. Furthermore, the same issue would also apply for other equations (e.g. calculation of EAER).

→ no final conclusion yet

3	**Next meetings (WLTP calendar)**
	WLTP SG EV web-audio meetings until June 2020 GRPE: 14 May 2020 (09:00 to 12:00 CEST) 28 May 2020 (09:00 to 12:00 CEST) WLTP LowT TF web-audio meetings until June 2020 GRPE: 7 May 2020 (9:00 to 12:00 CEST) 20 May 2020 (9:00 to 12:00 CEST) WLTP LowT TF drafting web-audio meetings (ICE & EV): 3 June 2020 (09:00 to 12:00 CEST) 4 June 2020 (09:00 to 12:00 CEST)
4	**AOB**
