

38 <sup>th</sup> WLTP Sub Group EV Meeting	
<b>Date</b>	11 March 2020
<b>Time</b>	9:00 to 12:30 CET
<b>Title</b>	38 <sup>th</sup> WLTP Sub Group EV Meeting – Minutes
<b>Location</b>	Web-Audio

0	Revision & adoption of meeting minutes & agenda
	<ul style="list-style-type: none"> <li>- Meeting minutes of web-audio meeting on 4 March 2020 and time slot on 5 March 2020 during LowT TF web-audio  <a href="#">01 WLTP SG EV Minutes 4 March 2020.pdf</a> → adopted</li> <li>- Adoption of this agenda  <a href="#">00 WLTP SG EV Agenda 11 March 2020.pdf</a> → adopted</li> </ul>
1	WLTP Low Temp Test Procedure Development for EVs: conclusion on open topics
	<p><u>Conclusion of open topics for Low Temp test procedure(s) for EVs</u></p> <p><i>Overview presentation of remaining open topics on test procedures to be agreed upon</i>  <a href="#">Open topics Low Temp Test Procedure after February IWG IMD and SG EV rev6.pptx</a></p> <p>The discussion was started with abovementioned overview presentation and was further supported via an overview table of JPN's positions on open issues (<a href="#">Japan positions on open issues low temp and SG EV.docx</a>) as well as additional comments made by OICA (<a href="#">Open topics Low Temp Test Procedure after February IWG IMD and SG EV rev6 OICA comment.pptx</a>). With this as well as the inputs and comments provided by the EC's representatives and other stakeholders, the overview presentation was modified live during the meeting reflecting the discussion, conclusions and agreements (document revision 7):</p> <p><a href="#">Open topics Low Temp Test Procedure after February IWG IMD and SG EV rev7.pptx</a></p> <p><i>Discussion input on test sequences</i>  <a href="#">200309 Possible Low Temp Test Sequences overview rev1.pptx</a></p> <p>The possible Low Temp test sequences were discussed and updated according to the discussions and conclusions of the group:</p> <p><a href="#">200311 Possible Low Temp Test Sequences overview rev2.pptx</a></p> <p>Following options are already reflected in the current working draft document (see agenda item 2): Option 1 (CD), Option 2 (CS), Option 3 (CD + CS), Option 4 (CS + CD) as well as Option 5 (CS + CS).</p> <p><u>Conclusion on required parameters during Type 6 testing</u></p> <p><i>Overview of required parameters during Type 6 testing – consolidated document (EC's and JPN's preliminary positions)</i>  <a href="#">Overview required parameter during Type 6 EC JPN prel feedback consolidated.xlsx</a></p>

	<p>The consolidated document was presented providing an overview of the required parameters to be reported from Type 6 testing. It serves as a guidance document for the drafting group, since due to some differences in CP's positions, square brackets shall be applied throughout the draft, where needed.</p> <p><u>Overview of remaining open items (status of topics)</u></p> <p>The latest document <i>WLTP_Low_Temp_TF_Status_list_v2020-xx-yy.xlsx</i> can be found in the UNECE wiki area: <a href="#">Optional annex Low T - Drafting</a></p>
<b>2</b>	<b>WLTP Low Temp Test Procedure Development for EVs: drafting</b>
	<p><u>Working draft document from SG EV for Low Temp test procedure</u></p> <p><b>Working draft available:</b> refer to updated Annex 8 working draft for NOVC-/OVC-HEV and PEV (including "PEV Type 6 test procedure")  <a href="#">Low temperature test procedure xEV draft V7.9.docx</a></p> <p>Rob Gardner (DC) explained the current way how this working draft on EVs is intended to be handled: for clarity and readability reasons, it will be incorporated as a sub-annex to the Low Temp Optional Annex.</p> <p>Sam Tripathy (Renault) on behalf of the SG EV drafting volunteers introduced the updated version of the working draft, reflecting the latest status of agreed items. Sections not applicable (as NOVC-FCHV, phase specific calculations, etc.) were put as "[reserved]". This measure reduced the number of pages down to 66 pages.</p> <p>Ricardo Suarez (JRC) made the group aware that a proposal for amending the text of the Type 1 test in GTR#15 was introduced in Appendix 6, paragraph 1.3. for added clarity reasons. The SG EV is therefore asked to scrutinize this text part and address concerns directly in this draft text, if any.</p> <p>On this occasion, Peter Bonsack (chair) invited SG EV members to take a close look at the working draft in order to scrutinize the text and to provide the requested draft text proposals as discussed during agenda point 1.</p> <p>Rob Gardner (DC) suggested that a separate working document for the Low Temp test procedure might be suitable, adding square brackets in the GTR#15 Amd#6 WD referencing to this separate WD. This proposal was supported by the group, since it helps adding clarity for GRPE delegates.</p> <p><u>Working draft of Low Temp Optional Annex</u></p> <p><b>Working draft available:</b> refer to the latest document <i>20xxyy – Low Temp Annex based on ECE-TRANS-WP29-2019-62e.docx</i> can be found in the UNECE wiki area: <a href="#">Optional annex Low T - Drafting</a></p>
<b>3</b>	<b>WLTP Low Temp Test Procedure Development for EVs: family concepts</b>
	<p><u>Family concept for NOVC-HEV and OVC-HEV (incl. ICE)</u></p> <p><b>Working draft available:</b> refer to paragraph 5.10. "Low temperature family definition" in latest version of Low Temp Optional Annex (<a href="#">Optional annex Low T - Drafting</a>; see EC's revised proposal as of 21 February 2020)</p>

	<p><u>Family concept for PEV</u></p> <p><b>Working draft required:</b> UBE family definition including criteria parameters such as "battery capacity", "battery preheating", "same battery insulation/housing", "on-board charger" as well as other relevant criteria, if required.</p> <p><i>Update on ACEA's input for Low Temp family concept for PEV</i>  <a href="#">PEV Low Temp Family idea ACEA EV update.pdf</a></p> <p>Due to time constraints, the update from ACEA EV was not presented in this meeting. Nevertheless, it can support further discussions on the family concept for PEV. It was also stated by JPN to further discuss the concept of UBE families, but since there is no time to reach an agreement by the WD submission deadline, it was proposed to submit the family concept for PEV in conjunction with the family definition for ICE, NOVC-/OVC-HEV via informal document amending the WD for the June 2020 GRPE.</p> <p>The SG EV agreed on this was forward.</p>
4	<p><b>GTR#15 Amd#6 Development</b></p>
	<p><u>Decisions about topics to go/not go into GTR#15 Amd#6</u></p> <p>Updated overview presentation on possible input from SG EV for GTR#15 Amd#6  <i>(postponed topics from UNR WLTP development and additional new topics)</i>  <a href="#">200227 Possible inputs SG EV GTR15Amd6 tbd rev2.pdf</a></p> <p>Matthias Nägeli (co-TS, on behalf of ACEA EV) presented the remaining topics to be decided on by the group.</p> <p><u>Additional topics (new)</u></p> <ul style="list-style-type: none"> <li>- Proposed update in the context of the CO2/FC correction factor application of HEVs/FCHVs (slide 11)  <i>Updated explanation regarding "worst case" based on discussions/questions during 5 March 2020 web-audio</i>  <a href="#">200308 Updated proposal CO2 FC correction ACEA EV rev2.pdf</a></li> </ul> <p>Feedback during the meeting: intention of the proposal is understood and supported but the proposal needs further scrutiny. Therefore, JPN and EC agreed on putting the topic in square brackets for GTR#15 Amd#6.</p> <p><u>Postponed topics from UNR WLTP development</u></p> <ul style="list-style-type: none"> <li>- Update/amendment of the wording of nominal voltage (slide 4)  EC supports the proposal. JPN can support the proposal in general but addressed some concerns: e.g. background of 60V threshold unclear. During the meeting, a first explanation was given but further explanation is required (by additional supporting material).</li> <li>- Declared number of cycles in CD mode for OVC-HEV (slide 8)  During the meeting, a specific use case has been introduced and explained (number of CD cycles less than the expected number). Based on this use case, EC and JPN agreed on putting the topic in square brackets for GTR#15 Amd#6 (proposal to include the wording from ACEA EV as placeholder in Amd#6).</li> </ul>

	An updated presentation reflecting the decisions can be found under following link: <a href="#">200227 Possible inputs SG EV GTR15Amd6 tbd rev3.pdf</a>
<b>5</b>	<b>Next meetings (<a href="#">WLTP calendar</a>)</b>
	<p><u>WLTP SG EV drafting web-audio:</u> 13 March 2020 (09:00 to 12:00 CET)</p> <p><u>WLTP SG EV web-audios in Q2 2020:</u> 2 April 2020 (09:00 to 12:00 CEST) 8 April 2020 (09:00 to 12:00 CEST)</p> <p><u>30<sup>th</sup> WLTP IWG meeting (web-audio):</u> 14 to 16 April 2020 (each from 08:30 to 12:30 CEST)</p>
<b>6</b>	<b>AOB</b>
	---

#### For Information

	<b>WLTP Low Temp Test Procedure Development for EVs: current proposals</b>
	<p><i>EC's proposal on Low Temp test procedure for <b>OVC-HEV</b> &amp; <b>NOVC-HEV</b></i> <a href="#">2020 01 14 OVC-HEV NOVC-HEV procedure proposal JRC V3</a></p> <p><i>Update on EC-JRC's proposal on Low Temp test procedure for <b>PEV</b></i> <a href="#">2020 02 05 PEV update.pdf</a></p> <p><i>Overview of <b>required parameters</b> during Type 6 testing – consolidated document (EC's and JPN's preliminary positions)</i> <a href="#">Overview required parameter during Type 6 EC JPN prel feedback consolidated.xlsx</a></p> <p><i>JPN's proposal on Low Temp test procedure for <b>NOVC-/OVC-HEV</b> &amp; <b>PEV</b></i> <a href="#">Test Diagram JAPAN proposal rev4.xlsx</a></p> <p><i>JPN's proposal on Low Temp test procedure for <b>PEV</b></i> <a href="#">WLTP-IMD-03e PEV test procedures JPN proposal.pdf</a></p> <p><i>ACEA's proposal on Low Temp test procedure for <b>NOVC-/OVC-HEV</b> &amp; <b>PEV</b></i> <a href="#">WLTP-IMD-04e EV Low Temp Test Procedure Proposal ACEA EV revised.pdf</a></p> <p><i>EC's proposal on Type 6 Family (<b>ICE</b>, <b>NOCV-HEV</b> &amp; <b>OVC-HEV</b>)</i> Refer to paragraph 5.10. "Low temperature family definition" in latest version of Low Temp Optional Annex (<a href="#">Optional annex Low T - Drafting</a>; see EC's revised proposal as of 21 February 2020)</p> <p><i>ACEA's input for Low Temp family concept for <b>PEV</b></i> <a href="#">PEV Low Temp Family idea ACEA EV update.pdf</a></p>