

WLTP Sub Group EV	
Date	29 th of August 2017
Time	9am to 12am CET
Title	WLTP Sub Group EV Meeting — minutes

Minutes

0	Review of draft meeting minutes from the last meeting the 28 of June 2017	
	Presentation and revision of meeting minutes. →	WLTP-SG-EV-17-02
1	Further discussion concerning the development of a Low Temperature Test Procedure as input for the Low Temp TF meeting in Ispra (September 15th/16th)	
	<p>Discussion started based on a scenario – focusing on PEVs – prepared by the SG EV co-technical secretary. Scenario addresses the open questions (what is the low temperature, what is the purpose?) and the different aspects to be considered (e.g. duration of cold soak, which auxiliary devices have to be taken into account, test procedure, ...) and was intended to be the basis for the further discussion during the meeting on August 29th.</p> <p>The scenario also addressed the following questions:</p> <ul style="list-style-type: none"> - What shall be the considered low temperature? - What shall be the purpose of the determined values? <p><i>Answer TF Low Temp:</i> The Chair of the Low Temp TF (Cova) responded concerning the question on the “purpose” by referring to Terms of Reference. Clear definition in there that the determined range value(s) shall only be considered for the purpose of customer information. Concerning the considered low temperature, there will be a discussion during the Low Temperature TF meeting in September. Cova as chair of the low temp TF also made the remark that RDE compliant vehicles may be used for an experimental campaign. Reducing the testing burden and the consideration of an empiric approach as an alternative is also in the scope of TF Low Temp but TF needs therefore input from WLTP SG EV experts on this</p> <p><i>Answer Japan:</i></p>	WLTP-SG-EV-18-03

	<p>JP will present answer on questions regarding the preferred low temperature at next WLTP IWG meeting and concerning the purpose of the range values approximately at the end of 2017.</p>	
	<p>In addition to the before shown scenario, there has been introduced the idea of a simulation approach: “how could a low temperature range be determined by an empiric approach? - as an alternative to physically performed test). Idea of the simulation approach as follows:</p> <ul style="list-style-type: none"> - Presented document is focusing on PEVs (as the scenario) and is a description of the idea how to determine low temperature range values by an empiric calculation approach. - The shown approach is calculating and simulating the effect of low temperature on the electric range and shall be an option in addition to the physical test. - The approach based on the energy consumption of considerably energy consuming auxiliary devices in the vehicle that do have an effect on the final test result (customer range at low temperature). <p>Task until next meeting for SG EV members: Scrutinize and prepare feedback on the presented idea of a simulation approach that had been presented by Matthias Nägeli. Further discussion on the idea during next WLTP SG EV meeting.</p>	<p>WLTP-SG-EV-18-04</p>
	<p>An additional open point – besides the purpose of the determined values - are the determined values themselves, especially concerning OVC-HEVs. There had been a bigger discussion during the meeting which is summarized as follows:</p> <ul style="list-style-type: none"> - With respect to PEVs, the value “range” to be considered is clear but in case of OVC-HEVs, there are several ranges values provided by the test procedure and it is up to now not clear which of those range values has/have to be considered in the context of a low temperature test procedure. - In the context of OVC-HEVs, there is an urgent need for a discussion regarding which range has to be considered as there is still an unclear situation which values may have to be determined during the low temperature test procedure. In the terms of reference, the values are only described as range (but which range: AER or EAER?), as CO₂ (but which 	

	<p>CO₂: CD, CS or weighted?), etc. This question has to be answered by the Low Temperature TF.</p> <ul style="list-style-type: none"> - T&E stated that most customer will start in the morning in CD mode therefore relevant to include CD in procedure. <p>Nevertheless and independent, if it's a PEV or an OVC-HEV, there is an urgent need to define the values which have to be considered.</p> <p>Earliest after that, an appropriate procedure may be developed.</p>	
	<p>Tasks out of this meeting:</p> <p>Task 1:</p> <ul style="list-style-type: none"> - WTLP SG EV leading team will prepare questions for the Low Temperature TF web-audio meeting next week regarding the question which range and CO₂ values etc. may have to be considered - These are necessary to be answered before continue discussion within TF Low Temp and also within SG EV concerning the test procedure/value determination procedure. <p>Task 2:</p> <ul style="list-style-type: none"> - Feedback requested from SG EV members regarding the empiric simulation approach presented by Matthias Nægeli 	<p><u>TBD by Co-TS before next low temp TF meeting</u></p>
	<p>Next steps:</p> <ul style="list-style-type: none"> - Further discussion on Low Temp Test procedure in SG EV after having answers on the question which OVC-HEV values may have to be considered as first the values have to be clear, then a more constructive discussion on the testing procedure is possible → question will be discussed in the next low temp task fore meeting - Based on the feedback on the introduced empiric approach, further discussion in the upcoming meeting - Concerning a physical testing procedure, JP will be able to report on the issues REESS preparation/conditioning in advance of the test (please look in minutes from last meeting, 28th of June) 	

2	Discussion of input for EVE: Battery Performance and Durability	
	<ul style="list-style-type: none"> - Request from IWG EVE to IWG WLTP to provide feedback on the durability requirement matrix. - JP already introduced its feedback during the last SG EV web-audio conference on June 28th - Reminder from last web-audio: JRC will discuss this topic with EC. Earliest then, further discussion within WLTP SG EV - Elena Paffumi (JRC) presented during this web-audio conference on August 29th the result of the discussion between JRC and EC (attached to this minutes); proposal from EC still under discussion. - Draft document attached to these minutes 	WLTP-SG-EV-18-05
	<p>Tasks out of this meeting: For Co-Technical Secretary → Consolidating the feedback from JP and EC in one document</p>	
	<p>Next steps:</p> <ul style="list-style-type: none"> - Further discussion of this topic in next WLTP SG EV meeting. - Next WLTP SG EV meeting has to be in advance of the next IWG WLTP meeting (which will be end of October 2017) 	
3	Drive Trace Index	
	<p>Iddo presented on behalf of T&E the developed proposal.</p> <ul style="list-style-type: none"> - Proposal considers vehicle forced deviations, where the vehicle cannot follow the cycle. Such deviations should be excluded from Drive Trace Index calculation. - Important boundary condition is that the accelerator control should be fully activated during these excluded deviations from the drive trace. - Therefore, a definition of “Wide Open Throttle” (WOT). Should be robust and clear that it is a vehicle forced condition and not a driver forced deviation. <p>JP</p> <ul style="list-style-type: none"> - Presentation regarding a clarification on how to calculate DTI for EV. - Deviations shall not be excluded from calculation as proposed by T&E proposal. - Regarding shortened test procedure for PEV, no need to calculate DTI during CSS. - Since dynamic segment is longer than 4 phase cycle can accept more deviations. 	<p>WLTP-SG-EV-06</p> <p>WLTP-SG-EV-18-07</p>

	<ul style="list-style-type: none"> - For range extender type of vehicle need to discuss what applicable cycle to use. - Discussion needed on how to check accelerator position and WOT. <p>Response from T&E and HS: Indication of accelerator position clarifies vehicle forced deviation.</p> <p>Ichikawa-san proposes that manufacturer should provide evidence for WOT since downscaling and capped speed gives less possibility for WOT in the cycle.</p> <p>Discussion on range extender vehicles: T&E of opinion that it should be seen as an OVC-HEV and considered as that when determining applicable test cycle. The question is already answered in current GTR.</p>	
	<p>Conclusion:</p> <ul style="list-style-type: none"> - T&E agrees on including the phases with a deviation in the DTI calculation if a WOT is confirmed. - Accepted by SG EV that a demonstration to the responsible authority is sufficient concerning WOT 	
	<p>Next steps: Point will be brought into IWG WLTP for confirmation</p>	
4	Run-In-Mileage for PEVs and NOVC-FCHVs	
	<p>Proposal that</p> <ul style="list-style-type: none"> - Vehicles with an internal combustion engine (ICE) shall keep the current text → OVC-HEV, NOVC-HEV - Vehicles with no ICE (NOVC-FCHVs, PEVs), new or reworked paragraphs are being proposed. - Run-in distance for vehicles without an ICE need to be discussed. <p>Presented proposal not based on latest GTR but on European transposition, update proposal based on latest GTR attached to these minutes.</p> <p>JP is ok with the proposal in general but had some remarks to make it clear and to avoid an unclear situation for PEV. Remark is to distinguish between vehicles with an ICE and vehicles without an ICE.</p> <p>T&E had the remark that the run-in-condition also needs to be specified → CS condition should be used for the run, elsewhere vehicle could be driven for 15000 km in CD mode and ICE is never being used. Manufacturer answered that</p>	WLTP-SG-EV-18-08

	<p>this maybe already covered by using the wording “Run-In according to manufacturer’s recommendation” and performing the run-in only in CD operation is to the disadvantage of the manufacturer. Nevertheless, the remark will be covered by the updated proposal and will be discussed during the upcoming WLTP SG EV meeting.</p>	
	<p>Task:</p> <ul style="list-style-type: none"> - Co-TS will update the proposal according to the feedback and remarks based on the latest GTR version. - Updated proposal will be circulated to SG EV 	
	<p>Next steps: Further discussion based on updated proposal in next SG EV meeting.</p>	
5	REESS definition in GTR	
	<ul style="list-style-type: none"> - Serge Dubuc introduced the discussion result from a small group which worked on this topic. - Result is the proposal for section 2.3 in Annex 8 to exclude all REESS with no influence on CO₂ mass emissions or H₂ consumption from monitoring. - Remark from a group member that wording “monitoring” could be misleading if someone from the CO₂ world looks into the GTR and sees the wording monitoring; wording is not only used in Annex 8 but also in other places of the GTR. - Need to clarify that the expression “monitoring” in this context is regarding RCB correction. 	
	<p>Task: Drafting coordinator may either find a different wording (with the same meaning) or we have to discuss whether to live with it or not as it is in the context of the GTR clear.</p>	
	<p>Next steps: Further discussion in next SG EV meeting (if necessary).</p>	
6	AOB	
	Drafting issues	
	<ul style="list-style-type: none"> - Drafting coordinator Serge Dubuc shared with SG EV members in advance of this meeting couple of paragraphs he got questions on from Jan Dornoff (ICCT) - Discussion of these points together with the feedback from T&E. 	<p>WLTP-SG-EV-18-09</p> <p>WLTP-SG-EV-18-10</p>

	<ul style="list-style-type: none"> - SG EV agreed on most of the points which will be incorporated in the GTR accordingly - Only one point regarding the midpoint delta E will be discussed bilaterally between T&E (Iddo) and ICCT (Jan). <p>Next steps:</p> <ul style="list-style-type: none"> - Proposal concerning the open point was circulated to SG EV for scrutiny, will be discussed during next SG EV meeting 	
	Charging – proposal for discussion	
	<ul style="list-style-type: none"> - Annex 8 Appendix 4 paragraph 2.2.3.1 defines the charging procedure which has to be used. - Paragraph 2.2.3.1. has defined to options which seem at a first glance to be equivalent options as it is written “(a) or “(b)” - But in option, it is written “(a)...if fitted” so it could be also read as “(b)” only if “(a)” is not fitted which means that (a) and (b) are not equivalent options; this interpretation is supported by the wording “if fitted” because only in that case it makes sense. <p>Therefore a proposal for discussion was introduced in the meeting which clarifies that a) and b) in section 2.2.3.1 in Annex 8 appendix 4 is not an option but prioritisation.</p> <ul style="list-style-type: none"> - A member from ACEA does not agree with proposal. - Reservation from JP, need to consider the proposal internally. <p>Task: Circulation of the proposal (after some amendments) to the SG EV members for further consideration.</p> <p>Next steps: Further discussion within SG EV in upcoming meeting.</p>	WLTP-SG-EV-18-11
7	IWG WLTP meeting Seoul/Korea	
	<p>Date: 26.-28. September 2017 https://wiki.unece.org/display/trans/WLTP+20th+session</p> <p>Deadline for registration: September 8th.</p>	
8	Next SG EV meeting	
	Date: TBD (between IWG WLTP and IWG EVE)	