Report WLTP Subgroup EV to EVE IWG
(EVE-24-XXe)

24th EVE IWG meeting
Vienna, 24th/25th October 2017
1. Collaboration WLTP Subgroup EV with IWG EVE

EV Communication in the UNECE Framework

- WLTP TF Low-Temp
- WLTP SG-EV
- HEV Systempower
- EVE IWG

Requirement
- Battery Durability
- PFV Range
- Method

ISO Workinggroup HEV systempower

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ISO Workinggroup HEV systempower
2. Status: System Power Determination

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<th>items</th>
<th>Current status</th>
<th>Comments</th>
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<tbody>
<tr>
<td>EV_1</td>
<td>HEV system power</td>
<td>- SG EV experts will continue attending IWG EVE meetings and collaboration with IWG EVE</td>
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<tr>
<td></td>
<td></td>
<td>- SG EV experts will support IWG EVE wherever and whenever required</td>
<td>HEV System Power in WLTP need for:</td>
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<td></td>
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<td>- Cycle Classification</td>
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<td>- Cycle Downscaling</td>
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**WLTP SG EV feedback to IWG EVE:**
- Concerning the time schedule, WLTP IWG is under the discussion based on EVE IWG progress which expects to be completed in fall 2019.
- Concerning the WLTP requirements for classification and downscaling, Heinz Steven needs to be involved
- Concerning drafting, an exchange with the WLTP drafting coordinator Serge Dubuc being recommended.
- WLTP Subgroup EV experts will support the work of the EVE drafting group on system power determination
3. Status: Battery performance and durability

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| EV_6 | Durability | - In WLTP Subgroup EV, JP provided a feedback on the durability requirement matrix provided by IWG EVE, on the other hands, feedback from EC is under the discussion  
|      |          | These two individual positions can be provided from the CPs as input for further discussion within IWG EVE                                                                                                    |                                                                                                                                          |

**WLTP SG EV feedback to IWG EVE:**

- As stated from OICA in the previous IWG EVE meetings, battery durability is a quite complex and challenging area as the aging of the battery is highly depending on the customer driving behaviour, the environment its operated in, the charging technology and infrastructure
  - Manufacturers put a lot of effort in the evaluation of battery aging and the understanding of the aging mechanisms in order to compensate and eliminate these effects; but: that is an ongoing process and cannot be fixed in a legislative text as it is evolving and changing
  - standardized procedure is not able to cover all this aspects in a proper way
- Durability shall be checked from a vehicles perspective as aging effects may be covered by the application of the vehicle
- CP statements:
  - EC made a clear statement during the IWG WLTP meeting in Korea that durability shall be handled as in-use compliance or in-service conformity
  - JP stated during the last WLTP Subgroup EV conference that durability needs also to be checked during type approval