EXTRAPOLATION FOR OVC-HEVS

4.5.1.   Interpolation range for NOVC- HEVs and OVC-HEVs

[...]

4.5.1.4. At the request of the manufacturer and with approval of the responsible authority, the application of the interpolation method on individual vehicle values within a family may be extended if the maximum extrapolation is not more than 3 g/km above the charge-sustaining CO_2 mass emission of vehicle H and/or is not more than 3 g/km below the charge-sustaining CO_2 mass emission of vehicle L. This extrapolation is valid only within the absolute boundaries of the interpolation range specified in this paragraph.

Issue:
- Paragraph is valid for NOVC- as well as for OVC-HEV → Limit for the extrapolation is defined
- In case of OVC-HEVs the extrapolation is in parallel always linked to a charge-depleting test too due to the difference in cycle energy demand

Challenge:
- To avoid mistakes by the extrapolation of the charge depleting test, two criteria have to be checked in advance:

    i.   Make sure that in case of an extrapolation of an individual vehicle below vehicle low the amount of charge-depleting cycles of the individual vehicle does not change compared to vehicle low
    ii. Make sure that in case of an extrapolation of an individual vehicle above vehicle high the amount of charge-depleting cycles of the individual vehicle does not change compared to vehicle high
    iii. Make sure that in case of an extrapolation of an individual vehicle above vehicle high and in case that vehicle high was able to drive CD pure electrically until SOC_{min} is reached the individual vehicle is also able due to higher demand to electric power
    iv. Make sure that in case of an extrapolation of an individual vehicle below vehicle low and in case that vehicle low was not able to drive CD pure electrically until SOC_{min} is reached the individual vehicle is also not able due to lower demand to electric power
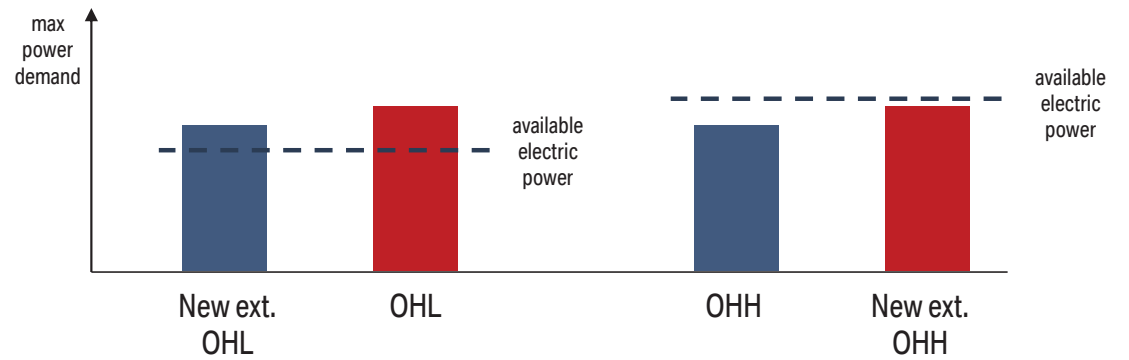
EXTRAPOLATION FOR OVC-HEVS

Break-off criteria within the same CD cycle
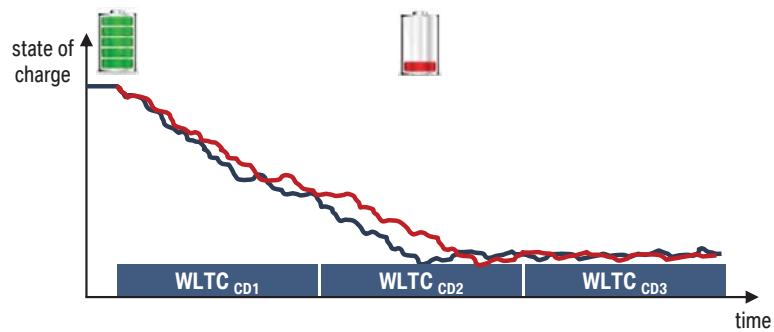
New ext. OHL still has to be not able to drive pure electrically in terms of electric power

New OHH still has to be able to drive pure electrically in terms of electric power

EXTRAPOLATION FOR OVC-HEVS

4.5.1. Interpolation range for NOVC- HEVs and OVC-HEVs

[...]

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If the extrapolation is applied to OVC-HEVs and in the unlikely case that trigger for ICE start differs or the number of the transient cycle changes the manufacturer shall check:

i) if the criterion in paragraph 4.5.7.1. of this Appendix applied to the individual vehicle with the lowest and/or the individual vehicle with the highest cycle energy demand is still fulfilled and

ii) that the amount of charge-depleting cycles from the beginning of the test up to and including the transition cycle are identical comparing the individual vehicle with the lowest cycle energy demand with vehicle low and/or comparing the individual vehicle with highest cycle energy with vehicle high