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| Case A flag       | Ensure the accuracy of SOCE/SOCR under Part A : support original flow under Part B : exclude Case A flag ON vehicle from sample but require additional | support original flow on vehicle from sample but require additional | (refer slide 3)  
|                   | vehicled but require additional                                                   | information in relation to Part B                                              |                                                                   |
| Case B flag       | Identify the abnormal usage                                                       | OK to remove with applying the virtual mileage concept                         | hard to define the “abnormal”                                       |
| Virtual mileage   | Consider V2X usage                                                                | Supports USEPA proposal with slight modification. Clear definition of “V2X” is  | slight modification : the denominator may not be unique electric  |
|                   |                                     | necessary (plan to provide the concrete text during 51st IWG meeting)           | consumption of each specific configuration                            |
| UBE calculation   | GTR shall provide the clear process to determine the performance parameter        | WLTP : hope to provide concrete calculation process during 51st IWG meeting     | Follow the recommendation by break out group                        |
|                   |                                     | CFR : US intends to provide the calculation formula in the Phase 1 ?              | No change                                                            |
Japan Proposal on Part A and Part B process

Part A : Verification of Monitors

1. Vehicle Procurement
2. Vehicle Survey according to Annex 1
   - Check the Exclusion Criteria
     - None
     - Check Case A Flag
       - ON
       - OFF
       - 1. Read on-board SOCE/SOCR
       - 2. Perform Verification Test
       - 3. Record measured SOCE/SOCR
       - Need more test ? according to paragraph 6.3.4.
   - Pass/Fail Decision according to paragraph 6.3.3.

Part B : Verification of Battery Durability

1. Data Acquisition according to paragraph 5.1.
2. Annual Sample Size is more than 500
   - YES
   - Check Case A Flag
     - ON
     - OFF
     - *2 correct on-board SOCE/SOCR with total mileage (km driven and virtual km)
     - *2 exclude from sampling
     - *2 exclude maximum 5% with TAA agreement

   - NO

*1 : on-board SOCE/SOCR before verification test shall be used for SOCR(read), (Part A verification) considering the consistency between Part A and Part B
*2 : the additional information (on-board SOCE/SOCR and total mileage) is a kind of “deterrent effect” to prevent the misuse from going into the market
Virtual Mileage

Add “At the option of the manufacturer, “

For vehicles designed with V2X usage, the equivalent virtual km calculated following the equation below will be reported by each vehicle.

\[
Virtual \ km = \left( \frac{\text{total discharge energy in V2X mode}}{\text{worst case certified energy consumption of PART B family}} \right) \left( \frac{Wh}{km} \right)
\]

OK as a first step, but plan to re-visit when technically justified evidence is available

V2X Definition

Support the latest text

3. “V2X” means the use of the traction batteries to cover external power demand, such as V2G (Vehicle-to-Grid) for system stabilization by discharging electricity from traction batteries, V2H (Vehicle-to-Home) for utilizing traction batteries as emergency power sources in times of power failure, and V2L (Vehicle-to-Load, only connected loads and home appliances are supplied) for use in times of power failure and/or outdoor activity in normal times.