In-vehicle Battery Durability

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EVE32 IWG
In-vehicle battery durability is a must

- Range is measured during WLTP and declared in the CoC
- Range is a critical factor to ensure user acceptability
- For PHEV smaller range, means more emissions

- State of Health proposal by Japan contains good elements especially for consumer awareness
State of health proposal

- The proposal needs to clearly define how the state of health is measured
  - Battery capacity?
  - All-electric driving range?
    - (values in CoC are the correct one to use, not information package)
- Possibility to read by third party does not mean verification is made
Verification

- Should include the possibility to check via independent means the range (not simply reading an ECU signal)
- Testing according the WLTC is currently the only option
- Rules are obviously needed on sample size, tolerances, etc.
Alternative approaches

- Allow manufacturers to define and declare a capacity fade, or range deterioration

or

- Those CPs that want to promote better technology, may decide to define a maximum range deterioration

- Verification checks (during ISC) should be developed based on WLTC
Monitoring Phase

- SOH Indicator in vehicles
- SOH Reading capabilities

TEMA or other Models

Information gathering

DF Definition by OEM or CP

Performance Definition

Verification method

Test: WLTC procedure For Range Determination Or alternative?

Statistical Method

Vehicle Selection criteria

Pass/Fail Criteria For vehicle and sample

Performance Verification
Thank you for your attention!