European
Automobile
Manufacturers
Association

ACEA views on Hybrid System Power definition

WLTP informal Group, 2 July 2014

Candidate procedures

(1) Measure complete vehicle (**Chassis Dyno**)

(2) Measure system power directly (**Bench**)

(3) Measure each element's power and combined them (**Defined calculation method**)

- In general, there are three possible ways mentioned above to measure the system power of (P)HEV.
- For each way, there would also be some possible detailed ways.

Questions on each procedure

	Questions
Complete Vehicle Measurement	➢ Can not be comparable with conventional vehicles ➢ Difficult to control both Battery SoC condition and ICE to each max power. ➢ New investment is necessary
Unit measurement	➢ Can not be comparable with conventional vehicles ➢ Difficult to control both Battery SoC condition and ICE to their max power.
Element measurement	➢ How to combine each elements output? ➢ Maximum power of each element possibly do not go together.

- For each method, there are some pros and cons.
- We discussed this issue several times but we ACEA do not have harmonized stance on this point.

Detailed Questions

Example: Elements measurement

1)How to determine the elements which define system power for each HEV system (series, parallel, series-parallel)

2)How to define the electric battery power.

➔Peak Power or continuous power?

3)How to combine the each elements power (calculation method) .

4)Define procedure to decide the battery power

- Once measurement way is agreed, there are still many things to defined.

ACEA Proposal

- We see many opinions and questions on candidate test procedures and it is difficult to make consensus before October.
- We manufacturers do not introduce the (P)HEV models which need down scaling method at this moment and maybe near future. →No urgent needs now (not sure for future)
- On the other hand, we believe we need to have harmonized standard to define (P)HEV system power for some purposes (customer information, etc.)

ACEA recommendation

- Withdraw this item from Phase 1b item and define new time line.
- Ask GRPE to clarify which group should handle this issue.