Discussion Starter of Family Definition

for System Power Determination(GTR#21)

prepared by Japan @EVE57

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GTR21 Definition of Family

■ Background

EVE IWG has made a decision to develop the family definition (please refer GPRE-85-43).

Japan is happy if this document helps to accelerate the further work to do so and
Japan is going to provide our contribution during the development of family definition.

■ Concept of Family Definition

Potential parameter and its criteria

parameters	GTR21 Family Requirements
(a) Hybrid system configuration	Same system layout *
(b) Engine nominal performance	UNR85 engine single unit output
(c) Motor nominal performance	UNR85 motor singe unit output
(d) Battery performance	UNR100 REESS specification

* Further discussion is necessary considering the currently available system and possible future system

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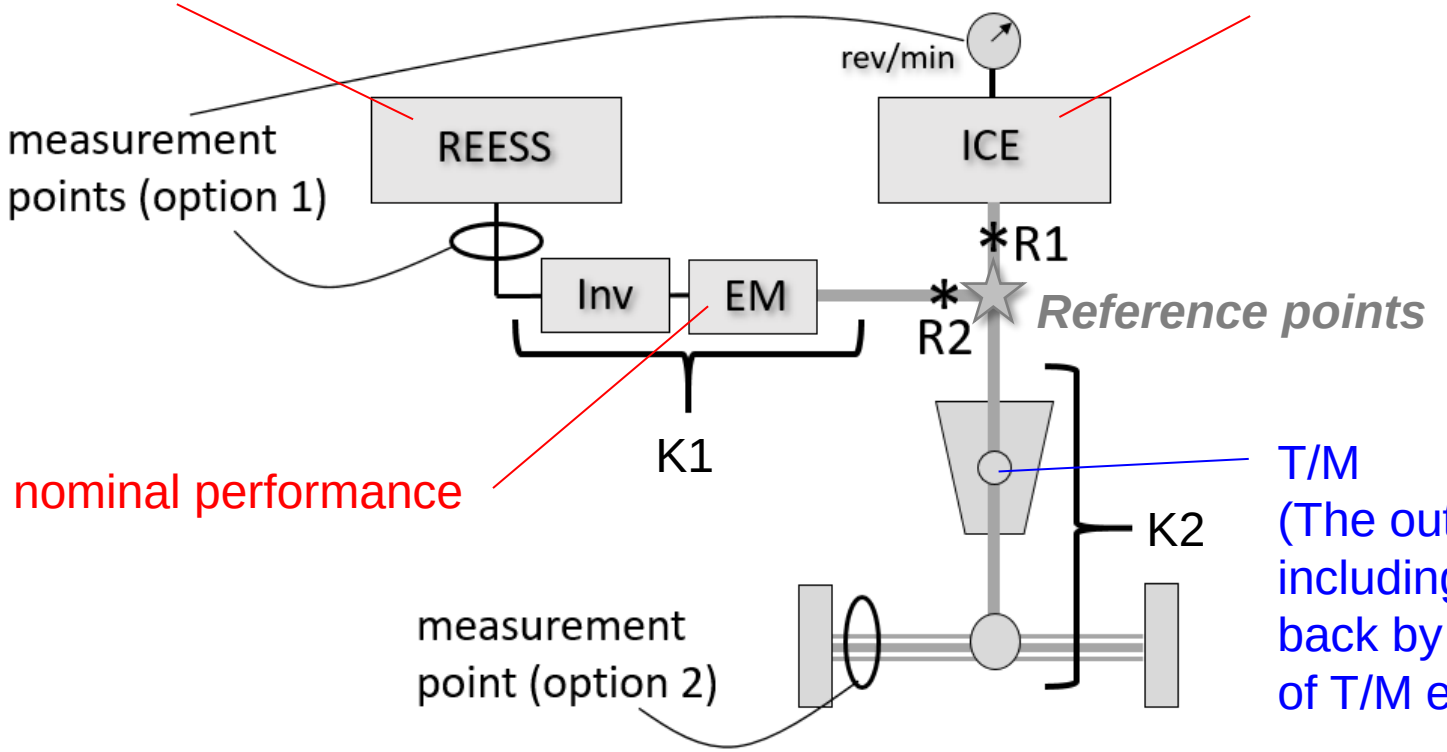
SAMPLE

・Family Criteria for Parallel P2 Hybrid

(a) Hybrid system configuration

(d) Battery performance

(b) Engine nominal performance



(c) Motor nominal performance

T/M
(The output power of Option 2 including K2 efficiency is divided back by K2 to eliminate the effect of T/M efficiency.)

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■ Criteria of (d) Battery Performance

Better to utilize the currently available specifications, which means

・UNR100 Annex1 – Appendix1 3. REESS

Proposed Elements for Battery Performance	Items
	3.1. Trade name and mark of the REESS:
	3.2. Indication of all types of cells:
○	3.2.1. The cell chemistry:
	3.2.2. Physical dimensions:
	3.2.3. Capacity of the cell (Ah):
	3.3. Description or drawing(s) or picture(s) of the REESS explaining:
	3.3.1. Structure:
○	3.3.2. Configuration (number of cells, mode of connection, etc.):
	3.3.3. Dimensions:
	3.3.4. Casing (construction, materials and physical dimensions):
	3.4. Electrical specification:
○	3.4.1. Nominal voltage (V):
	3.4.2. Working voltage (V):
	3.4.3. Capacity (Ah):
○	3.4.4. Maximum current (A):
	3.5. Gas combination rate (in per cent):
	3.6. Description or drawing(s) or picture(s) of the installation of the REESS in the vehicle:
	3.6.1. Physical support:
	3.7. Type of thermal management
	3.8. Electronic control: