Terminology related to REESS

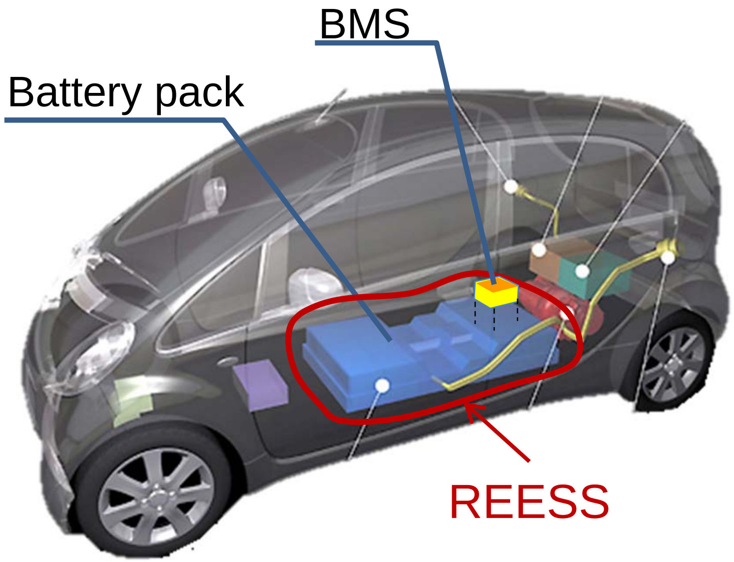
EVS-04-15e

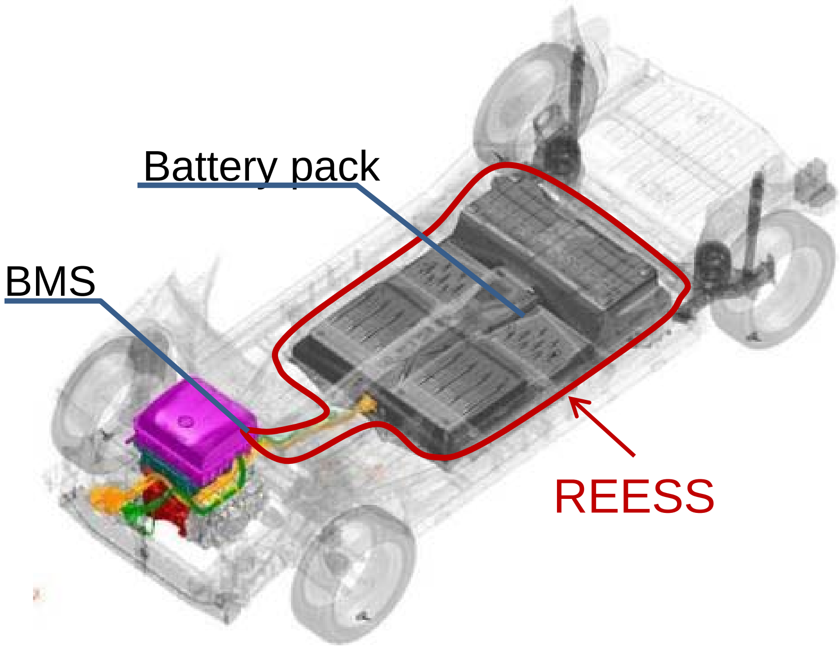
During EVS meeting, the members of EVS informal group have verbally used various terminologies.
The basic terminology should be shared in this EVS informal group.

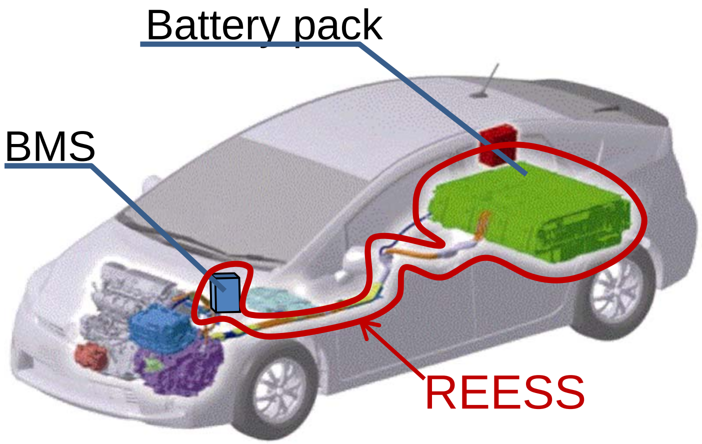
REESS, Battery pack, Module, Cell, subsystem…..

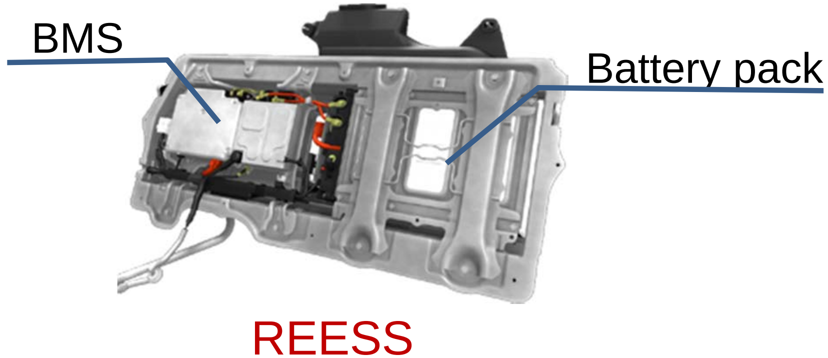
This presentation may explain each terminology with visual examples.

Terminology related to REESS



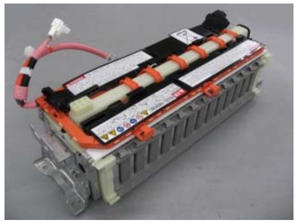
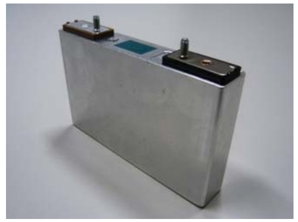






* Components of REESS may be distributed in different part of the vehicles.

Terminology related to REESS

REESS	Subsystem		
	Battery pack	**Module**	**Cell**
See P.2		 Casing structure Voltage detection : exist	
		 Casing structure Voltage detection: none	
		 Frame structure Voltage detection: none	
		 Frame structure Voltage detection: none	

* A battery pack may be considered as a REESS if BMS is integrated.

Points to be considered

- In principle, the safety evaluation should be conducted as the vehicle.
- However, depending on the test procedure, it might be difficult to conduct with the vehicle.
- In that case, the evaluation of REESS (or its subsystem) will be considered as an alternative/substitute for the evaluation by the vehicle, if the performance of the vehicle can be represented sufficiently.
- The evaluation with smaller level such as module or cell may not adequately represent the performance of the vehicle.
- This is because the representativeness may vary depending on the configuration of the REESS.

(Reference) Terminology in R100/02

2.35. " tested-device " means either the complete REESS or the subsystem of a REESS that is subjected to the tests prescribed by this Regulation.

2.29. "Rechargeable energy storage system (REESS)" means the rechargeable energy storage system that provides electric energy for electrical propulsion.
The REESS may include subsystem(s) together with the necessary ancillary systems for physical support, thermal management, electronic control and enclosures.“

2.34. "Subsystem" means any functional assembly of REESS components.

・Description in Annexes

Installations

2.1. This test shall be conducted either with the complete REESS or with a related REESS subsystem(s) including the cells and their electrical connections. If the manufacturer chooses to test with related subsystem(s), the manufacturer shall demonstrate that the test result can reasonably represent the performance of the complete REESS with respect to its safety performance under the same conditions.

(Reference)　Terminology in ISO12405

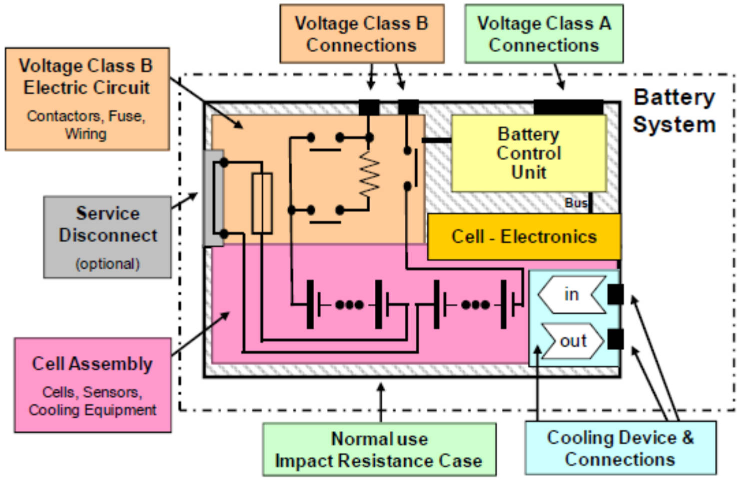


Figure 3 — Typical configuration of battery system with integrated BCU

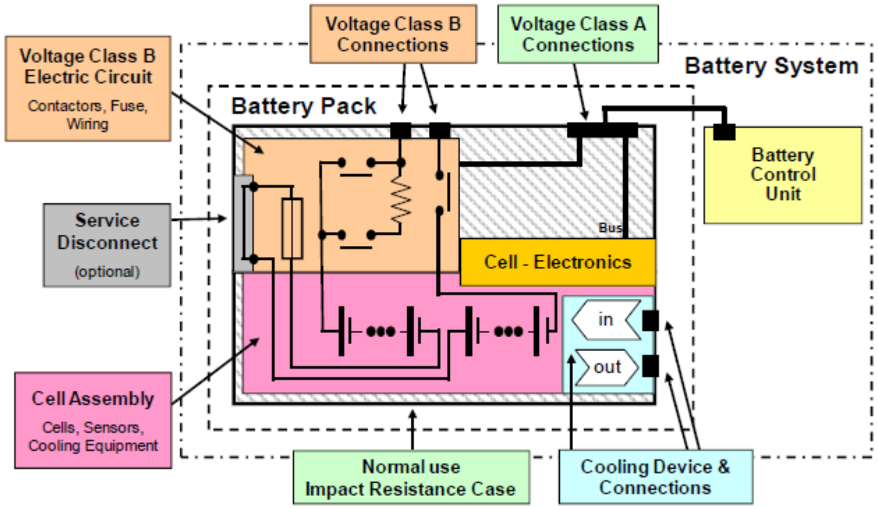


Figure 4 — Typical configuration of battery system with external BCU