

# Design Method of Hybrid Power Source to be Applied to Vehicles

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To reduce Greenhouse Gas emission from engine, various kinds of Energy storage such as secondary battery, flywheel and hydraulic accumulator have been used for several hybrid power source system. Hybrid power source system should be as small a volume as possible to be applied to vehicles. In this paper, regarding hybrid system to be applied in off-highway vehicles, an engine operation method that reduce GHG emissions and a design method for a minimal hybrid system are proposed.

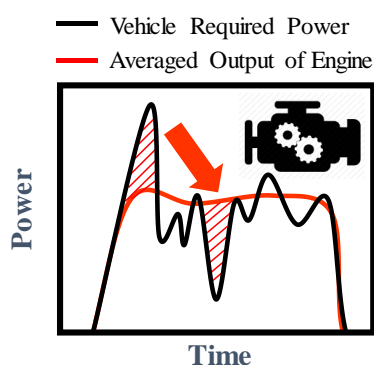


Fig.1 Engine Output Averaging by Hybrid System

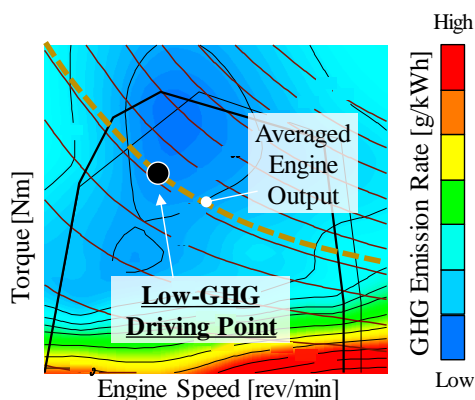


Fig.2 Concept of Low-GHG Emitting Driving

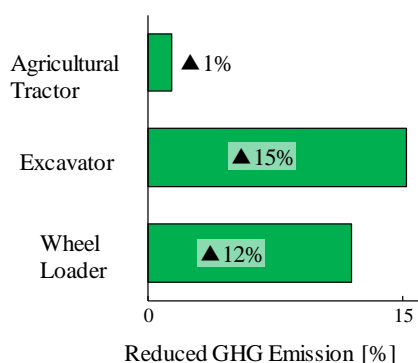


Fig.3 GHG Emission Reduction by Hybrid Vehicle

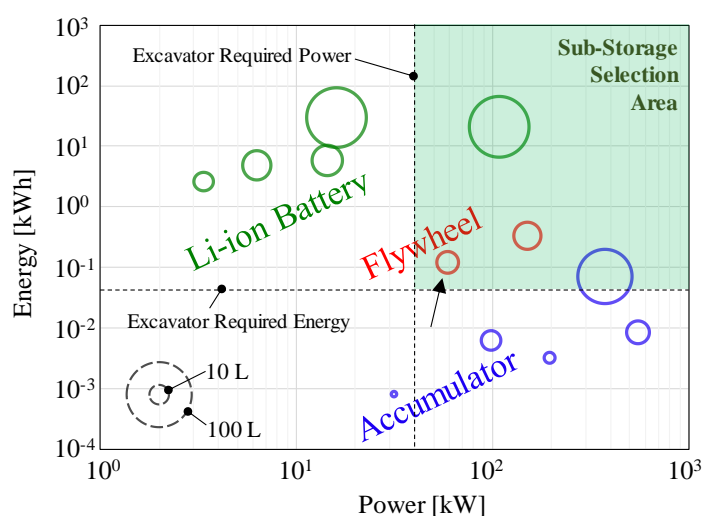


Fig.4 Comparison between Energy Storage for Hybrid Vehicle

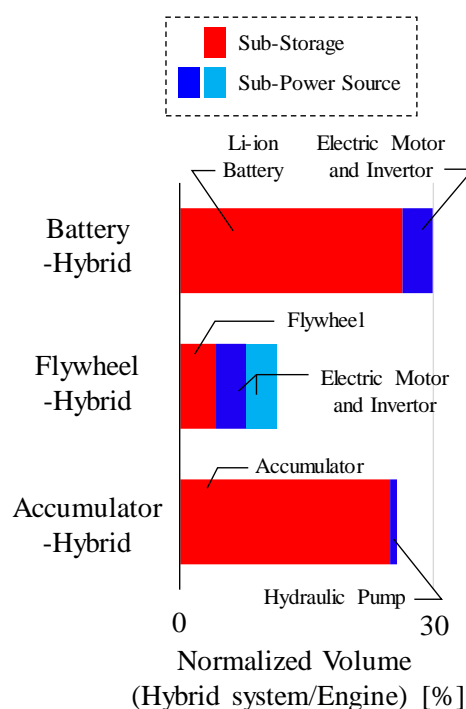


Fig.5 Volume Comparison of Hybrid System Vehicle