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## HYBRID ELECTRIC VEHICLES

### Series Configuration

In a series HEV, an electric machine, coupled to an ICE, supplies electricity to the electric machine to propel the vehicle, and to the energy storage system when it needs to be recharged. One of the main advantages of series is that the engine and vehicle speeds are decoupled. As a consequence, the engine can run at its optimum greatly reducing fuel consumption. However, as the electric machine is the only one connected to the wheels and the engine/generator set is sized for sustained grade ability, this configuration requires a large energy storage system pack, electric machine and engine, adding inefficiencies and weight.

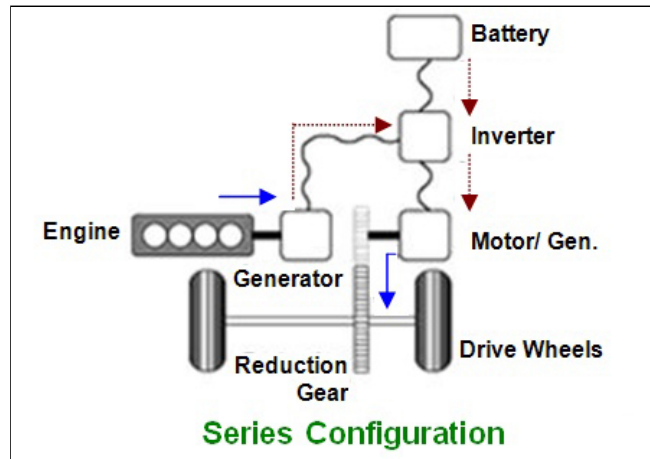
HEVs

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