



Mild Hybrids

A mild hybrid can be defined as a powertrain that uses more than one energy source, where the second source of energy supplies less than 20% of the total power. For example, an internal combustion engine and a 48 Volt motor/ generator. In motor mode, it can produce mechanical torque from battery power. In generator mode the same unit can absorb power from the vehicles' wheels during braking and convert it into electrical energy to charge the battery. Therefore, there are significant CO2 reductions available. It also means the complexity of the powertrain increases, as well as the overall cost and weight of the car.

Research shows from 2018, mild hybridization as a 48 Volt system is expected to increase its share within the global market and reach nearly 20% in 2025, with particular growth expected in China and Europe.

Mild hybrids will enable continued fuel economy improvements in order to meet more stringent CO2 legislation.

However, they will also enable different engine operating modes which will change the types of combustion the engine is exposed to. For example, regular Start/Stop of the engine during driving introduces frequent, rapid thermal changes in the engine which could have an effect on injector and in combustion chamber deposits.

Because of this, as the mild hybrid market grows, good quality fuel will be essential in minimizing any risks from these rapidly emerging technologies.

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