In city driving, the motor and lithium-ion battery make it possible to turn the engine off frequently. The engine can also be disengaged completely with the clutch, and energy can be recovered effectively when braking. Fuel economy is improved in high-speed driving situations through downsizing of the engine as well as a new CVT with significant friction reduction and wider ratio coverage.

A supercharger has been added to a fuel-efficient downsized engine, and the required power is generated through motor assist. By combining a smooth-shifting CVT that cannot be experienced on standard transmission with power generated at low rpm, the addition of a supercharger achieves a good response and direct feel which can always respond to the driver's needs.

Fuel economy that can be felt in any kind of driving scene

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Hybrid system—offering not only environmental performance, but also direct throttle response

A “one-motor two-clutch system” has been used for the new CVT which offers a significant friction reduction and wider ratio coverage. This is combined with the downsizing engine that is low in fuel consumption. The one-motor two-clutch system is comprised by a single motor which is responsible for both the drive and regeneration, and the transmission is engaged directly using two clutches. While compact, this system allows good fuel economy to be experienced in both the city and on highways, realizing the fuel economy of a medium sized vehicle for large sized vehicles. A powerful and exhilarating ride is also a large part of this engine's features. A supercharger has been added to the downsizing engine with low fuel consumption, and motor assist provides power when it is required. A combination of high output and quick charging lithium ion battery, a high-speed motor control technology, and smooth shift CVT realizes powerful and responsive acceleration that can respond to the driver's needs. This is a refined technology that has only been achieved by Nissan, where coordination control between the engine and transmission has been undertaken.

Making a more attainable Hybrid into a reality via weight and size reduction

To contribute to CO₂ reduction by fitting hybrid systems into vehicles of various kinds regardless of their drive mechanisms and vehicle types. Nissan has moved another step closer towards this dream. A parallel hybrid system which has been made for INFINITI M has now been applied to FF vehicles via the latest technologies. This gave birth to the world's first “Hybrid System for FF Vehicles”. Nissan has developed a highly efficient CVT with Nissan's own one-motor two-clutch system. On top of this, we have downsized the engine with an addition of a supercharger and high-output lithium-ion battery to achieve a hybrid system that is both compact and lighter than ever before. This allows hybrid technology to be installed onto many model grades without creating chassis specific to Hybrids. Bringing a variety of vehicle environmental performance to smaller classes—this advancement has widened the potential of Hybrids.