

Dynamic Wireless Power Transfer System (DWPT)

Potential for Unlimited Range & Release from Static Charging

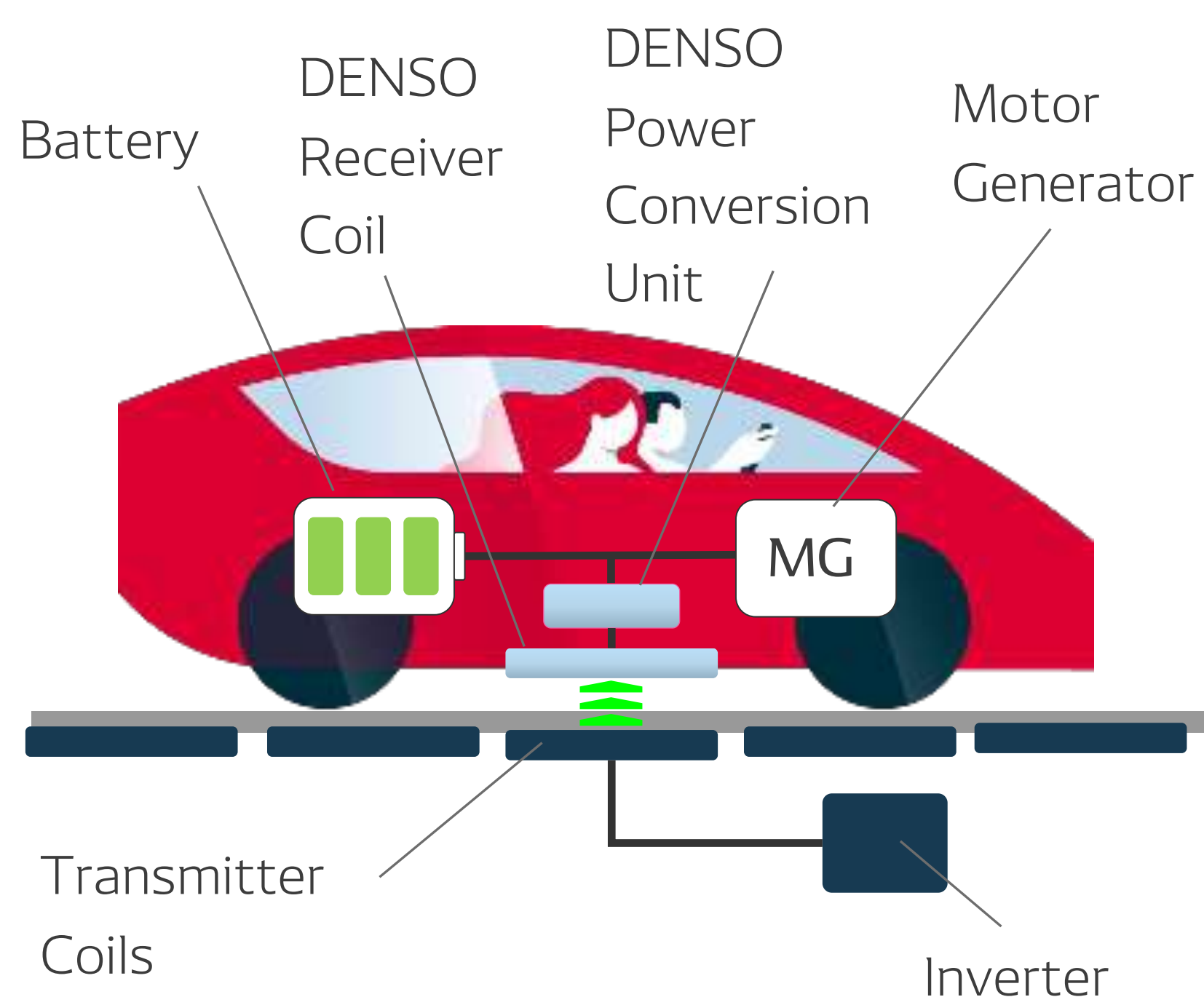
Overview

- DWPT uses transmitters beneath a road's surface to transfer power to a receiver in an equipped BEV while it travels on that road.
- DWPT can achieve an average power supply efficiency of up to 85% and an 80% reduction in battery capacity.
- DENSO has demonstrated that the full application of DWPT may facilitate achievement of unlimited range for a properly equipped BEV.
- By facilitating both greater EV adoption, and reduced battery size and materials usage, DWPT is one of the most effective means of achieving carbon neutrality.

Feature

DWPT System Overview

DENSO can supply technology and products for BEVs to achieve DWPT operation.



Comparison table of charging technologies

	Super-Fast Charging	Battery Swapping	DWPT
Stationary Charging Time	~15 minutes	~5 minutes	Practically 0
Power supply output	~350kW	-	20~70kW (per coil)
Power supply efficiency	70%	90%	85%
Battery capacity	1	1.4 (Including battery storage)	0.2
Production CO ₂ Emissions	1	1.2	0.6
Running electricity cost	-	-	20% improvement (Vehicle weight reduction)
Infrastructure Scale of installation	Medium	Medium	Large

DENSO Test Track Demonstration

- DENSO constructed a test track, including 50m of road with transmitter coils.
- The DWPT equipped vehicle achieved 50 hours of continuous operation on the test track.
- This test demonstrated the full application of DWPT may facilitate achievement of unlimited range for a properly equipped BEV.

