Configuration of Non-contact Power Supply Coil for Railway

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We are considering application of a non-contact power supply system to the battery train or the hybrid train. The system has many potential advantages compared with a normal (contacting) power supply system. The non-contact system significantly eliminates the danger of electric shocks or leaks and has low-noise and maintenance-free features, however, the transmission of energy through space tends to drop the energy supply efficiency and equipment cost becomes higher. In this paper, we report the configuration of the coil to cope with these problems.