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(54) **POWER CAPABILITY DETECTION WITH VERIFICATION LOAD IN POWER LEVEL CONTROL SYSTEMS FOR WIRELESS POWER TRANSMISSION**

(52) **U.S. Cl.**

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ABSTRACT

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A power transmitter for wireless power transfer includes a verification load, a control and communications unit, an inverter circuit, a coil, and a shielding. The control and communications unit is configured to provide power control signals to control a power level of a power signal configured for transmission to a power receiver, provide a power request to an external power supply, determine if a power signal at the verification load is compliant with the power request, and, if the power signal at the verification load is compliant with the power request, continue to operate for wireless power transmission. The coil is configured to transmit the power signal to a power receiver. The shielding comprises a ferrite core.

