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(54) **DYNAMIC POWER SYSTEM ADJUSTMENT TO STORE ENERGY FOR POWER EXCURSIONS**

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See application file for complete search history.

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(57) **ABSTRACT**

A power system is coupled to a powered system and a system capacitance. The power system includes a power system output sensor, a power conversion device, and a power system output controller. The power system output controller includes a powered system threshold that is related to a power excursion capability of the powered system. The power system output controller is operable, in response to receiving a power system output signal from the power system output sensor that exceeds the powered system threshold, to control the power conversion device to increase the power system output from the power conversion device in order to increase the energy stored in the system capacitance for use by the powered system during a power excursion. The powered system may include processors that draw power from the system capacitance during power excursions so as to not exceed the limits of the power system.

20 Claims, 4 Drawing Sheets

