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(54) **MULTI-POWER SOURCE SYSTEMS FOR PHOTOVOLTAIC BATTERY CONTROL**

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(57) **ABSTRACT**

A multi-power source system including a first power source, a second power source in a parallel with the first power source, and a diode preventing power from the second power source to drive the first power source, but permitting the first power source to charge the second power source. The system also includes a controller operably coupled to both the first and second power sources, and a plurality of field effect transistor (FETs) arranged in series with one or more of the first power source, the second power source, and the load, wherein controller can switch the plurality of FETs to enable the first power source to drive the load or the second power source to drive the load.