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(57) **ABSTRACT**

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**Related U.S. Application Data**

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A device is disclosed that includes a battery charge controller having an input removably connected to a power adapter and an output supplying DC current to a battery, a voltage regulator having an input coupled to the output of the battery charge controller and the battery, and a current sensing unit used by the battery charge controller for sensing a charging current to the battery and by the voltage regulator for sensing a discharging current from the battery. Various other methods and systems are also disclosed.

