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The Director

of the United States Patent and Trademark Office has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this United States

Patent

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DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE



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(12) United States Patent
Mader**(10) Patent No.: US 10,454,274 B2****(45) Date of Patent: Oct. 22, 2019****(54) STORAGE UNIT FOR A CONSUMER,
STORAGE SYSTEM, AND METHOD OF
CONTROLLING A STORAGE SYSTEM****(58) Field of Classification Search**
CPC ... Y02E 60/12; Y02E 60/722; Y02E 60/7807;
H02J 3/32

(Continued)

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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(2013.01)**(56) References Cited**

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A storage unit for a consumer is described, having an energy storage in which electric energy can be stored, and a current interface via which the storage unit can be connected to an electricity grid. The storage unit furthermore has a circuit arrangement which is arranged between the energy storage and the current interface in the direction of current flow, and a control interface for controlling the storage unit. The storage unit is controllable only via the control interface which communicates only with an external control. A storage system and a method of controlling a storage system are furthermore described.

18 Claims, 3 Drawing Sheets