Title (en)

CONTROLLED ENERGY STORAGE BALANCE TECHNOLOGY

Title (de)

GEREGELTE ENERGIESPEICHER-AUSGLEICHSTECHNOLOGIE

Title (fr)

TECHNOLOGIE D'ÉQUILIBRE DE STOCKAGE D'ÉNERGIE COMMANDÉE

Publication

EP 3701613 A4 20210331 (EN)

Application

EP 18870240 A 20180531

Priority

- US 201715796534 A 20171027
- US 2018035463 W 20180531

Abstract (en)

[origin: WO2019083568A1] An energy storage system that comprises an energy reservoir and a system controller. The energy reservoir is charged by DC energy from a DC energy source while discharging DC energy to a DC/AC converter. A system controller regulates the DC energy discharged from the energy reservoir to the DC/AC converter to nearly balance the amount of DC energy charged into the energy reservoir. Because this charging and discharging is nearly balanced, the size of the energy reservoir can be made quite small relative to the amount of charging and discharging. This is advantageous where the flow of charge and discharge is high, as might be the case if the energy reservoir receives charge from all or a substantial portion of a power station, such as a solar power station. With such a controller, the use of an energy reservoir becomes technically feasible even with such large current flows.

IPC 8 full level

H02J 3/38 (2006.01); **G05F 1/67** (2006.01); **H02J 3/14** (2006.01); **H02J 3/32** (2006.01); **H02J 7/34** (2006.01); **H02J 9/06** (2006.01)

CPC (source: EA EP KR US)

G05F 1/67 (2013.01 - EA EP KR US); **H02J 3/14** (2013.01 - KR); **H02J 3/32** (2013.01 - EP KR US); **H02J 3/381** (2013.01 - EA EP KR US); **H02J 7/35** (2013.01 - EA EP KR); **H02J 9/062** (2013.01 - KR); **H02M 7/48** (2013.01 - KR); H02J 3/14 (2013.01 - EA EP US); H02J 9/062 (2013.01 - EA EP); H02J 2300/24 (2020.01 - EA EP KR US); H02J 2300/26 (2020.01 - EA EP KR US); H02J 2310/12 (2020.01 - EA EP KR); Y02B 10/70 (2013.01 - EP); Y02B 70/30 (2013.01 - EP); Y02B 70/3225 (2013.01 - EP); Y02E 10/56 (2013.01 - EP KR); Y02E 70/30 (2013.01 - EP); Y02P 90/50 (2015.11 - EP); Y04S 20/222 (2013.01 - EP); Y04S 20/248 (2013.01 - EP)

Citation (search report)

- [X] US 2016268804 A1 20160915 - SHIM JAE SEONG [KR]
- [A] US 2015229131 A1 20150813 - GERHARDINGER PETER F [US]
- [A] US 2016315498 A1 20161027 - NARLA SANDEEP [US], et al
- See also references of WO 2019083568A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2019083568 A1 20190502; AU 2018355031 A1 20200423; AU 2018355031 B2 20221110; BR 112020007686 A2 20201013; CA 3077405 A1 20190502; CL 2020001035 A1 20201016; CN 111480276 A 20200731; CO 2020005191 A2 20200529; EA 202091049 A1 20200716; EP 3701613 A1 20200902; EP 3701613 A4 20210331; JP 2021501559 A 20210114; JP 7460527 B2 20240402; KR 102394942 B1 20220504; KR 20200080239 A 20200706; MX 2020004130 A 20200813; PH 12020550460 A1 20210322; SA 520411836 B1 20221207; TW 201918011 A 20190501; TW I677180 B 20191111

DOCDB simple family (application)

US 2018035463 W 20180531; AU 2018355031 A 20180531; BR 112020007686 A 20180531; CA 3077405 A 20180531; CL 2020001035 A 20200417; CN 201880069617 A 20180531; CO 2020005191 A 20200427; EA 202091049 A 20180531; EP 18870240 A 20180531; JP 2020543463 A 20180531; KR 20207011707 A 20180531; MX 2020004130 A 20180531; PH 12020550460 A 20200421; SA 520411836 A 20200425; TW 107136233 A 20181015