

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2022/0360099 A1 UNO et al.

Nov. 10, 2022

(43) **Pub. Date:**

(54) CONTROL APPARATUS, POWER SYSTEM, AND CONTROL METHOD

(71) Applicant: KABUSHIKI KAISHA TOSHIBA,

Tokyo (JP)

(72) Inventors: Hiroshi UNO, Kawasaki Kanagawa

(JP); Qiang LIN, Kawasaki Kanagawa (JP); Tetsu SHIJO, Setagaya Tokyo (JP); Yasuhiro KANEKIYO, Yokohama Kanagawa (JP)

(73) Assignee: KABUSHIKI KAISHA TOSHIBA,

Tokyo (JP)

- Appl. No.: 17/690,697
- Filed: Mar. 9, 2022 (22)
- (30)Foreign Application Priority Data

May 10, 2021 (JP) 2021-079841

Publication Classification

(51) Int. Cl. H02J 7/00

(2006.01)(2006.01)

H02J 3/32 (52) U.S. Cl.

H02J 7/00712 (2020.01); H02J 7/0048 (2020.01); H02J 7/00032 (2020.01); H02J

3/32 (2013.01)

(57)**ABSTRACT**

A control apparatus controlling a power output apparatus that generates, based on input power from one of an electrical grid and a power storage, output power to another of the electrical grid and the power storage is provided. The control apparatus includes: a communicator to receive a grid frequency of the electrical grid and a state of charge of the power storage, or information allowing the grid frequency and the state of charge to be calculated; and a processor to determine an output destination and an output rate of the output power, based on a function of calculating the output destination and the output rate according to the grid frequency. The output destination and the output rate are adjusted according to the state of charge, by the processor changing, according to the state of charge, the function used to determine the output destination and the output rate.

