

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2024/0222977 A1 Kobayashi et al.

Jul. 4, 2024 (43) **Pub. Date:**

(54) **SMOOTHING-TARGET-VALUE** CALCULATION DEVICE, POWER SUPPLY SYSTEM, SMOOTHING-TARGET-VALUE CALCULATION METHOD, AND PROGRAM

(71) Applicant: MITSUBISHI HEAVY INDUSTRIES, LTD., Tokyo (JP)

(72) Inventors: Yu Kobayashi, Tokyo (JP); Yusuke

Yashiro, Tokyo (JP); Masayuki Hashimoto, Tokyo (JP)

Assignee: MITSUBISHI HEAVY INDUSTRIES, LTD., Tokyo (JP)

(21) Appl. No.: 18/558,844

(22) PCT Filed: Apr. 25, 2022

(86) PCT No.: PCT/JP2022/018658

§ 371 (c)(1),

(2) Date: Nov. 3, 2023

(30)Foreign Application Priority Data

Publication Classification

(51)	Int. Cl.	
	H02J 3/32	(2006.01)
	G01R 21/00	(2006.01)
	H02J 3/46	(2006.01)
	H02J 7/35	(2006.01)

(52) U.S. Cl. CPC H02J 3/32 (2013.01); G01R 21/00 (2013.01); H02J 3/46 (2013.01); H02J 7/35 (2013.01); H02J 2300/24 (2020.01)

(57)**ABSTRACT**

Provided is a smoothing-target-value calculation device that is capable of calculating a smoothing target value with which it is possible to suppress battery degradation. The present invention provides a smoothing-target-value calculation device that calculates a smoothing target value, which is a target value for the sum of first power generated by a renewable-energy power generation system and second power charged into and discharged from a battery, the smoothing-target-value calculation device including: a predicted-value acquisition unit that acquires a predicted value for the first power; a predicted-value correction unit that corrects the predicted value; and a smoothing-target-value calculation unit that calculates a smoothing target value by smoothing the corrected predicted value.

