



US 20220352714A1

(19) **United States**(12) **Patent Application Publication**
YIM et al.(10) **Pub. No.: US 2022/0352714 A1**(43) **Pub. Date: Nov. 3, 2022**(54) **SYSTEM FOR ESTIMATING RENEWABLE
ENERGY GENERATION QUANTITY IN
REAL-TIME**(71) Applicant: **Encored Technologies, Inc.**, Seoul
(KR)(72) Inventors: **Jae Ryun YIM**, Seoul (KR); **Kyung
Nam PARK**, Seoul (KR); **Rae Kyun
KIM**, Seoul (KR)(21) Appl. No.: **17/361,624**(22) Filed: **Jun. 29, 2021**(30) **Foreign Application Priority Data**

Apr. 28, 2021 (KR) 10-2021-0054940

Publication Classification(51) **Int. Cl.**
H02J 3/00 (2006.01)
H02S 50/10 (2006.01)
G01R 22/06 (2006.01)
G06N 20/00 (2006.01)
G06N 3/02 (2006.01)
H02J 3/38 (2006.01)(52) **U.S. Cl.**CPC **H02J 3/004** (2020.01); **H02S 50/10**
(2014.12); **G01R 22/06** (2013.01); **G06N**
20/00 (2019.01); **G06N 3/02** (2013.01); **H02J**
3/381 (2013.01); **H02J 2300/24** (2020.01);
H02S 40/32 (2014.12)

(57)

ABSTRACT

A system for estimating a real-time renewable energy generation quantity according to an embodiment of the present disclosure includes a site setting unit for setting a benchmarking group based on geographical locations of a plurality of renewable energy generation sites and setting a benchmarking site for each benchmarking group, a site generation quantity calculation unit for calculating a real-time generation quantity prediction value of each of sites except the benchmarking site among the sites included in the benchmarking group by using a preset prediction model based on a real-time generation quantity actual-measurement value of the corresponding benchmarking site, and a total generation quantity estimation unit for estimating a total real-time generation quantity of all the sites by summing the calculated real-time generation quantity prediction values for the respective sites and the real-time generation quantity actual-measurement value of the benchmarking site.

