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(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2022/0360085 A1**
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ADJUSTMENT IN POWER SYSTEM**(71) Applicant: **Mitsubishi Power Americas, Inc.**,
Lake Mary, FL (US)(72) Inventors: **Rohit Shrikant Kadam**, Clifton Park,
NY (US); **Michael Thomas Leonard**,
South Park, PA (US); **Jovan Z. Bebic**,
Clifton Park, NY (US)(21) Appl. No.: **17/302,615**(22) Filed: **May 7, 2021****Publication Classification**(51) **Int. Cl.**
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(2013.01); **H02J 2203/10** (2020.01)(57) **ABSTRACT**

A utility-scale energy storage and conversion system can operate two or more inverter groups such that their reactive power commands are proportional to their available reactive power range. The control system can therefore distribute the reactive power commands in proportion to the available Q range, thereby ensuring that all inverters in the utility-scale energy storage and conversion system 100 operate with the same Q “headroom”. In addition, the utility-scale energy storage and conversion system can use an on-load tap changer (LTC) to adjust a terminal voltage associated with a first group of inverters and a second group of inverters. The first group of inverters can be associated with a first rating and the second group of inverters can be associated with a second rating that is greater than the first rating.

