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(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2023/0231552 A1****FABBRO et al.**(43) **Pub. Date: Jul. 20, 2023**(54) **CHARGE REDISTRIBUTION FOR
POWERING A DRIVEN SWITCH**(52) **U.S. Cl.**
CPC **H03K 17/284** (2013.01)(71) Applicant: **Infineon Technologies Austria AG,**
Villach (AT)(57) **ABSTRACT**(72) Inventors: **Simone FABBRO**, Udine (IT); **Davide
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Wolfgang FRANK, Augsburg (DE)(21) Appl. No.: **17/580,386**(22) Filed: **Jan. 20, 2022****Publication Classification**(51) **Int. Cl.**
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An apparatus comprises a power source connected to a buffer capacitor. The apparatus comprises a first switch connected between the buffer capacitor and a driven switch. The buffer capacitor is charged by the power source when the first switch is turned off. The apparatus comprises a comparator. The comparator monitors the charging of the buffer capacitor. In response to the buffer capacitor reaching a threshold amount of charge, the comparator turns on the first switch to initiate a charge redistribution of charge from the buffer capacitor to the driven switch.

