



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

May 31, 2023

Robert Piconi
Chief Executive Officer
Energy Vault Holdings, Inc.
4360 Park Terrace Drive, Suite 100
Westlake Village, CA 93161

Re: Energy Vault Holdings, Inc.
Post-Effective Amendment No. 2 to Form S-1 on Form S-3
Filed May 22, 2023
File No. 333-262720

Dear Robert Piconi:

We have limited our review of your registration statement to those issues we have addressed in our comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Post-Effective Amendment No. 2 filed May 22, 2023

General

1. Please update information regarding share ownership and outstanding shares as of April 7, 2023, to reflect information as of the most recent practicable date.
2. We note that the opinion filed as Exhibit 5.1 relates to 71,202,366 resale shares, while your registration statement registers 72,651,205 resale shares. Please file a legal opinion covering all the shares being registered. In addition, please revise the legal matters section of your registration statement to reflect that the opinion covers both shares and private warrants.

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Exhibits

3. Please include the filing fee table required to be filed as Exhibit 107 by Item 601 of Regulation S-K, or advise.

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Please contact Jennifer Angelini at 202-551-3047 or Jay Ingram at 202-551-3397 with any questions.

Sincerely,

Division of Corporation Finance
Office of Manufacturing

cc: Samuel Rettew