



DIVISION OF
CORPORATION FINANCE

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

May 10, 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. 1 to Form S-1 on Form S-3
Filed May 8, 2023
File No. 333-262720

Dear Robert Piconi:

We have reviewed your post-effective amendment and have the following 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. 1 filed May 8, 2023

Cover Page

1. Please disclose the methods by which the price for the private warrants will be determined. Refer to Instruction 2 to Item 501(b)(3) of Regulation S-K. Disclose whether there is an established public trading market for the private warrants or whether you intend to apply for listing of the private warrants on any national securities exchange or recognized trading system. Revise accordingly references to "market prices" or "at the market" when describing the method of determining the price for, or the offering of, private warrants. Make appropriate conforming changes to the plan of distribution section.

Robert Piconi
Energy Vault Holdings, Inc.
May 10, 2023
Page 2

Incorporation by Reference, page iv

2. We note that your Form 10-K incorporates Part III information by reference to the definitive proxy statement filed on April 17, 2023. Please revise this section to specifically incorporate by reference this proxy statement. Refer to Item 12 of Form S-3. We also note references to Forms 8-K filed before fiscal year-end, which are not required to be incorporated by reference; please revise or advise.

Exhibits

3. Please request counsel to revise the opinion filed as Exhibit 5.1 to clearly opine as to the Warrant Shares on a when-issued basis. In this regard, we note the various tenses included in the following paragraph, "The Warrant Shares shall have been duly registered on the books of the transfer agent and registrar therefor in the name or on behalf of the applicable Warrant holders, and have been issued by the Company upon exercise of the Warrants against payment therefor (not less than par value) in the manner contemplated by the Registration Statement, the Warrants and the Warrant Agreement. The issuance of the Warrant Shares have been duly authorized by all necessary corporate action of the Company, and the Warrant Shares are validly issued, fully paid and nonassessable;" please reconcile.
4. Please revise your exhibit index to include all exhibits required pursuant to Item 16 of Form S-3 and Item 601 of Regulation S-K. Include, without limitation, the private warrant agreement and other material agreements, including those filed with the underlying Form S-1 and/or incorporated by reference to your Form 10-K.

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.

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