



DIVISION OF
CORPORATION FINANCE

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

April 22, 2022

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

**Re: Energy Vault Holdings, Inc.
Amendment No. 2 to Registration Statement on Form S-1
Filed on April 8, 2022
File No. 333-262720**

Dear Mr. Piconi:

We have reviewed your amended registration statement 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. Unless we note otherwise, our references to prior comments are to comments in our March 30, 2022 letter.

Amendment No. 2 to Registration Statement on Form S-1

Selling Securityholders, page 102

1. We note your disclosure on page 108 in response to comment 1 that based on the closing prices of your securities on April 7, 2022, the selling securityholders would have a potential unrealized gain of approximately \$1.3 billion in the aggregate. Please revise to include this disclosure on the cover page.

Robert Piconi
Energy Vault Holdings, Inc.
April 22, 2022
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You may contact Bradley Ecker, Staff Attorney, at (202) 551-4985 or Erin Purnell, Legal Branch Chief, at (202) 551-3454 with any questions.

Sincerely,

Division of Corporation Finance
Office of Manufacturing