

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

SCHEDULE 13D

(Rule 13d-102)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT
TO RULE 13d-1(a) AND AMENDMENTS THERETO FILED PURSUANT
TO RULE 13d-2(a)
(Amendment No.)*

Energy Vault Holdings, Inc.

(Name of Issuer)

Common Stock, \$0.0001 par value per share
(Title of Class of Securities)

29280W109
(CUSIP Number)

Robert Piconi
Energy Vault Holdings, Inc.
4360 Park Terrace Drive
Suite 100

Westlake Village, California 93161
(805) 852-0000

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

February 11, 2022

(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box.

*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act.

CUSIP No. 29280W109

1.	Name of Reporting Person Robert Piconi
2.	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>
3.	SEC Use Only
4.	Source of Funds (See Instructions) PF
5.	Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e) <input type="checkbox"/>
6.	Citizenship or Place of Organization United States
Number of Shares Beneficially Owned by	7. Sole Voting Power 14,841,504 shares of common stock (1)
	8. Shared Voting Power ---

Each Reporting Person With	9.	Sole Dispositive Power 14,841,504 shares of common stock (1)
	10.	Shared Dispositive Power ---
11.	Aggregate Amount Beneficially Owned by Each Reporting Person 14,841,504 shares of common stock (1)	
12.	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) <input type="checkbox"/>	
13.	Percent of Class Represented by Amount in Row 11 <input type="checkbox"/> (2)	
14.	Type of Reporting Person (See Instructions) IN	

(1) Consists of (i) 6,225,612 shares of Common Stock held directly by the Reporting Person, (2) 4,307,946 shares of Common Stock held directly by the Piconi 2021 Delaware Trust, for which the Reporting Person serves as an investment advisor, and (3) 4,307,946 shares of Common Stock held directly by the Piconi Family 2021 Delaware Trust, for which the Reporting Person serves as an investment advisor.¹

(2) Based on 133,633,288 shares of Common Stock outstanding as of February 11, 2022, as reported in the Issuer's Current Report on Form 8-K, as filed with the Securities and Exchange Commission on February 14, 2022.

¹ The shares beneficially owned by the Reporting Person do not include any shares of Common Stock (the "Earn-Out Shares"), which may be issued pursuant to the earn-out provisions of the Business Combination Agreement (as defined below) upon the occurrence of certain triggering events provided for therein.

Item 1. Security and Issuer

This statement on Schedule 13D (this "Statement") is filed with respect to the common stock, \$0.0001 par value per share ("Common Stock"), of Energy Vault Holdings, Inc., a Delaware corporation (the "Issuer") formerly known as "Novus Capital Corporation II". The address of the principal executive offices of the Issuer is 4360 Park Terrace Drive, Suite 100, Westlake Village, California 93161.

Information given in response to each item shall be deemed incorporated by reference in all other items, as applicable.

Item 2. Identity and Background

(a) This Statement is filed by Robert Piconi (the "Reporting Person").

(b) The business address for the Reporting Person is:

c/o Energy Vault Holdings, Inc.
4360 Park Terrace Drive
Suite 100
Westlake Village, California 93161
(805) 852-0000

(c) The Reporting Person is the Issuer's Chief Executive Officer and a member of its board of directors.

(d) During the past five years, the Reporting Person has not been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).

(e) The Reporting Person is not, nor during the last five years has been, a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

(f) The Reporting Person is a citizen of the United States.

Item 3. Source and Amount of Funds or Other Consideration.

All of the securities reported herein as beneficially owned by the Reporting Person were acquired pursuant to that certain Business Combination Agreement and Plan of Reorganization, dated as of September 8, 2021 (the "Business Combination Agreement"), by and among the Issuer, NCCII Merger Corp. ("Merger Sub") and Energy Vault, Inc. ("Legacy Energy Vault"), pursuant to which Merger Sub merged with and into Legacy Energy Vault, with Energy Vault surviving as a wholly-owned subsidiary of the Issuer (the "Merger"). The Merger closed on February 11, 2022 (the "Closing").

Effective upon the Closing, among other things, (1) all outstanding shares of Legacy Energy Vault's common stock were cancelled and automatically converted into the right to receive the shares of Common Stock, (2) options to purchase Legacy Energy Vault's common stock (whether vested or unvested, exercisable or unexercisable) issued pursuant to the Energy Vault 2017 Stock Incentive Plan or the Energy Vault 2020 Stock Plan (collectively, the "Predecessor Plans"), and outstanding immediately prior to the Closing were assumed and converted into options to purchase the Issuer's Common Stock under the Issuer's 2022 Equity Incentive Plan (the "2022 Plan"), (3) restricted stock units in Legacy Energy Vault were assumed and converted into restricted stock units in the Issuer, and (4) outstanding restricted stock awards in Legacy Energy Vault were assumed and converted into restricted stock awards in the Issuer, each in accordance with the Business Combination Agreement.

The above summary is qualified by reference to such description and the full text of the Business Combination Agreement, which is filed as [Exhibit 1](#) to this Statement and is incorporated herein by reference.

Effective upon the Closing, the Reporting Person received 14,841,504 shares.

Item 4. Purpose of Transaction

The information set forth in Item 3 of this Statement is incorporated into this Item 4 by reference.

The Reporting Person serves as the Chief Executive Officer and a member of its board of directors and, in such capacity, may have influence over the corporate activities of the Issuer, including activities which may relate to items described in subparagraphs (a) through (j) of Item 4 of Schedule 13D. Except as described herein, the Reporting Person does not have any present plans or proposals that relate to or would result in any of the transactions described in subparagraphs (a) through (j) of Item 4 of Schedule 13D. However, the Reporting Person reserves the right to formulate in the future plans or proposals which may relate to or result in the transactions described in subparagraphs (a) through (j) of this Item 4.

The Reporting Person holds the securities of the Issuer for general investment purposes. The Reporting Person reserves the right, based on all relevant factors and subject to applicable law or other restrictions, at any time and from time to time, to acquire additional shares of Common Stock or other securities of the Issuer, dispose of some or all of the shares of Common Stock or other securities of the Issuer that it may own from time to time, in each case in open market or private transactions, block sales or otherwise or pursuant to ordinary stock exchange transactions effected through one or more broker-dealers whether individually or utilizing specific pricing or other instructions (including by means of Rule 10b5-1 programs).

Item 5. Interest in Securities of the Issuer

The information contained in Item 3 and 4 of this Schedule 13D is incorporated into this Item 5 by reference.

(a) and (b) See Items 7-11 and 13 of the cover page of this Statement and Item 2 above.

Subject to the satisfaction of the share-price based performance vesting conditions set forth in the Business Combination Agreement during the earn-out period, which ends on February 11, 2025, the Reporting Person may earn certain Earn Out Shares, which shares are excluded from the aggregate number of shares held by Reporting Person.

(c) Except as reported in this Statement, the Reporting Person has not effected any transactions in the Issuer's securities within the past 60 days.

(d) No other person is known to the Reporting Person to have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the shares of Common Stock covered by this Statement.

(e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer

The information set forth in Item 3 of this Statement is incorporated into this Item 6 by reference.

In connection with the Merger, certain stockholders of Legacy Energy Vault, including the Reporting Person, entered into lock-up agreements (the "Lock-Up Agreement"), pursuant to which they agreed, subject to certain exceptions, not to (i) sell, offer to sell, contract or agree to sell, hypothecate, pledge, grant any option to purchase or otherwise dispose of or agree to dispose of, directly or indirectly, or establish or increase a put equivalent position or liquidate or decrease a call equivalent position within the meaning of Section 16 of the Exchange Act, and the rules and regulations of the SEC promulgated thereunder, with regards to any shares of Common Stock held by them immediately after Closing, or issuable upon the exercise of options to purchase shares of Combined Company Common Stock held by them immediately after the Closing, or securities convertible into or exercisable or exchangeable for Common Stock held by them immediately after the Effective Time (the "Lock-up Shares"), (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of any of the Lock-up Shares, whether any such transaction is to be settled by delivery of such securities, in cash or otherwise or (iii) publicly announce any intention to effect any transaction specified in clause (i) or (ii). With respect to 50% of the Lock-up Shares (the "Early Release Shares"), the Lock-Up Period (as defined in the Lock-Up Agreement) shall terminate 180 days after the Closing. With respect to the shares held by any signatory of the Lock-Up Agreement that are not Early Release Shares, the Lock-Up Period shall terminate 365 days after the Closing. The foregoing description of the Lock-Up Agreement is a summary only and is qualified by reference to such description and the full text of the Lock-Up Agreement, which is filed as [Exhibit 2](#) to this Statement and is incorporated herein by reference.

In his capacity as a member of the Issuer's board of directors, the Reporting Person may be entitled to receive equity compensation, including stock option or other equity awards, pursuant to the 2022 Plan, which became effective upon the Closing. The terms and provisions of the 2022 Plan are described in the Issuer's Registration Statement on [Form S-1, filed with the Securities and Exchange Commission on February 14, 2022](#) and the full text of which is filed as [Exhibit 3](#) to this Statement and is incorporated herein by reference.

Item 7. Material to be Filed as Exhibits

Exhibit Number	Description
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Exhibit 1	Business Combination Agreement and Plan of Reorganization, dated as of September 8, 2021, by and among Novus, Merger Sub and Energy Vault (filed as Exhibit 2.1 to the Issuer's current report on Form 8-K as filed with the Securities and Exchange Commission on September 9, 2021 (SEC File No. 001-39982) and incorporated herein by reference).
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Exhibit 2	Form of Lock-Up Agreement (filed as Exhibit 10.4 to the Issuer's current report on Form 8-K as filed with the Securities and Exchange Commission on February 14, 2022 (SEC File No. 001-39982) and incorporated herein by reference).
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Exhibit 3	Energy Vault Holdings, Inc. 2022 Equity Incentive Plan (filed as Exhibit 10.6 to the Issuer's current report on Form 8-K as filed with the Securities and Exchange Commission on February 14, 2022 (SEC File No. 001-39982) and incorporated herein by reference).
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SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

February 18, 2022

/s/ Robert Piconi

Name: Robert Piconi
