UNITED STATES

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K
CURRENT REPORT
Pursuant to Section 13 or 15(d) of
the Securities Exchange Act of 1934

Date of Report (date of earliest event reported):

October 30, 2023

MONOLITHIC POWER SYSTEMS, INC.
(Exact name of registrant as specified in its charter)

Delaware	**000-51026**	**77-0466789**
(State or other jurisdiction of incorporation or organization)	(Commission File Number)	(I.R.S. Employer Identification Number)

5808 Lake Washington Blvd. NE, Kirkland, Washington	**98033**
(Address of principal executive offices)	(Zip Code)

(425) 296-9956
(Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.001 per share	MPWR	The NASDAQ Global Select Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 2.02 Results of Operations and Financial Condition.

On October 30, 2023, Monolithic Power Systems, Inc. (the "Company") issued a press release regarding its financial results for the quarter and nine months ended September 30, 2023, and hosted a webinar covering its financial results. Both the press release and the webinar presentation are attached hereto as Exhibit 99.1 and Exhibit 99.2, respectively, and are incorporated by reference herein.

The information under Item 2.02 of this Current Report on Form 8-K and Exhibits 99.1 and 99.2 attached hereto are being furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "1934 Act"), nor shall they be deemed incorporated by reference in any filing with the Securities and Exchange Commission under the 1934 Act or the Securities Act of 1933, as amended, except as shall be expressly set forth by specific reference in such filing.

Item 8.01 Other Events.

On October 30, 2023, the Company announced that its Board of Directors has approved a new stock repurchase program of $640 million, which will expire on October 29, 2026. Shares of common stock repurchased under the program will be retired. A copy of the press release is attached hereto as Exhibit 99.3.

Stock repurchases under the program may be made through open market repurchases, privately negotiated transactions or other structures in accordance with applicable state and federal securities laws, at times and in amounts as management deems appropriate. The timing and the number of any repurchased common stock will be determined by the Company's management based on its evaluation of market conditions, legal requirements, share price, and other factors. Repurchases of common stock may be made under a Rule 10b5-1 plan. The repurchase program does not obligate the Company to purchase any particular number of shares and may be suspended, modified, or discontinued at any time without prior notice.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit	Description
99.1	Press release issued on October 30, 2023, announcing the financial results for the quarter and nine months ended September 30, 2023.
99.2	Webinar presentation dated October 30, 2023.
99.3	Press release issued on October 30, 2023, announcing the stock repurchase program.
104	Cover Page Interactive Data File (embedded within the Inline XBRL Document).

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: October 30, 2023

By: /s/ T. Bernie Blegen

T. Bernie Blegen
Chief Financial Officer