FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| 1. Name and Address of Reporting Person [*] | | | | | | 2. Issuer Name and Ticker or Trading Symbol <u>MONOLITHIC POWER SYSTEMS INC</u> [MPWR] | | | | | | | | | ieck all ap X Dire | plicable) ctor | | Owner |
|---|---|--|---------------|-------------------------|--|--|--------|---------------------------------|--|----------|---|--|---------|--|---|---|---|-------------------------|
| (Last) (First) (Middle) 79 GREAT OAKS BLVD | | | | | 3. Date of Earliest Transaction (Month/Day/Year) 02/07/2017 | | | | | | | | | Offic | cer (give title ow) | Oth belo | er (specify w) | |
| (Street) SAN JOSE CA 95119 (City) (State) (Zip) | | | | 4. If A | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | | e) X Forr Forr | dual or Joint/Group Filing (Check Applicable Form filed by One Reporting Person Form filed by More than One Reporting Person | | | |
| (City) | (51 | | | lon-Deriv | ative S | Secu | iritio | | uired I | Dier | | for | Bono | ficia | | ed | | |
| 1. Title of Security (Instr. 3) (Month/Day | | | | tion | on 2A. Deemed Execution Date, | | | 3. Transact Code (In | tion | 4. Secur | ities Acquired (A) d Of (D) (Instr. 3, | | d (A) c | or Securities Beneficially Owned Following Reported | | 6. Ownershi Form: Direc (D) or Indirect (I) (Instr. 4) | | |
| Common Stock 02/07/20 | | | | | 2017 | 017 | | | A | | 1,566 | (1) | A | \$ <mark>0</mark> . | 0 | 18,562 | D | |
| | Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) | | | | | | | | | | | | | | | | | |
| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | Execut if any | any /lonth/Day/Year) | | ransaction ode (Instr. | | mber ative rities ired | 6. Date Exercisable and Expiration Date (Month/Day/Year) Date Expiration Exercisable Date | | | 7. Title and Amount of Securities Underlying Derivative Security (Instr 3 and 4) Amoun or Numbo Title Shares | | str. ount iber | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transactior (Instr. 4) | Ownersh Form: Direct (D or Indire (I) (Instr. 4) | Beneficial Ownership |

Explanation of Responses:

1. According to the Company's 2014 Equity Incentive Plan and the Board Compensation Schedule as adopted by the Board on February 7, 2017, each Outside Director will be automatically granted Restricted Stock Units as of such date, if he or she will have served on the Board for at least the preceding six (6) months, with such grant to be effective as of the date of the meeting of the Board or Compensation Committee, as applicable, subject to the Outside Director's continued service to the Board through such date. 100% of the restricted stock units shall vest on the first anniversary of the Vesting Commencement Date.

By: Saria Tseng For: Jeff Zhou 02/08/2017

** Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.