FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

| OMB APPROVAL | | | | | | | | |
|--------------------------|-----------|--|--|--|--|--|--|--|
| OMB Number: | 3235-0287 | | | | | | | |
| Estimated average burden | | | | | | | | |
| hours per response: | 0.5 | | | | | | | |

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 ar | 10M | 2. Issuer Name and Ticker or Trading Symbol MONOLITHIC POWER SYSTEMS INC [MPWR] | | | | | | | | | heck all ap | tionship of Reporting all applicable) Director Officer (give title | | 10% Own | | | | | |
|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|----------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------|--|--|--------------------------------------------------------------------------------------------|---|-------------|--------------------------------------------------------------------------------------------------------------------|-------------|---------------------------|---------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------|-----------------------|--------------------------------------------------------------------|
| (Last) (First) (Middle) 79 GREAT OAKS BLVD | | | | | | 3. Date of Earliest Transaction (Month/Day/Year) 02/07/2018 | | | | | | | | | | ow) | | Other (specify below) | |
| (Street) SAN JOSE CA 95119 | | | | 4. If A | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | | ne) <mark>X</mark> For | ridual or Joint/Group Filing (Check Applicable Form filed by One Reporting Person Form filed by More than One Reporting | | | | |
| (City) | (Sta | ate) (Z | ľip) | | | | | | | | | | | | Per | son | | | |
| Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned | | | | | | | | | | | | | | | | | | | |
| 1. Title of Security (Instr. 3) 2. Transact Date (Month/Day | | | | | y/Year) | Execution Date, | | | Transaction Disposed Code (Instr. and 5) | | | ities Acquired (<i>i</i> d Of (D) (Instr. 3 | | | Secu Bene Own | nount of rities eficially ed owing | 6. Owner Form: D (D) or Indirect (Instr. 4 | irect | 7. Nature of Indirect Beneficial Ownership (Instr. 4) |
| | | | | | | | | | Code | v | Amount | | A) or D) | Price | Repo | orted saction(s) r. 3 and 4) | (IIISU . 4 | | (111501.4) |
| Common Stock 02/07/2 | | | | | | 018 | | | A | | 1,590(1) | | A | \$ <mark>0</mark> | .0 | 16,598 | 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) | if any | emed ion Date, //Day/Year) | 4. Transac Code (Ir 8) | Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | | | 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 Number of Title Shares | | ount nber | 8. Price of Derivative Security (Instr. 5) | 9. Number derivative securities Beneficially Owned Following Reported Transaction (Instr. 4) | Own Forn Dire or Ir (I) (II | ct (D) direct | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |

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, 2018, 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.

** 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.