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  | MON  | 2. Issuer Name and Ticker or Trading Symbol MONOLITHIC POWER SYSTEMS INC [ MPWR ] |              |                                  |          |   |  |                                   |   |        | heck all ap | ionship of Reporting<br>all applicable)<br>Director<br>Officer (give title<br>below)                           |                   | 10% C        | )wner  |   |                          |   |  |
|---|--|---|--------------|----------------------------------|----------|---|--|-----------------------------------|---|--------|-------------|--|-------------------|--------------|--|---|--------------------------|---|--|
| (Last) (First) (Middle) 79 GREAT OAKS BLVD                    |  |   |              |                                  |          | 3. Date of Earliest Transaction (Month/Day/Year) 02/07/2013 |  |                                   |   |        |             |  |                   |              |  | below)  | (specify                 |   |  |
| (Street) SAN JOS (City)                                       | E CA   |   | 5119<br>Zip) |                                  | 4. If A  | 4. If Amendment, Date of Original Filed (Month/Day/Year)    |  |                                   |   |        |             |  |                   |              | ne)<br><mark>X</mark> For<br>For                       | vidual or Joint/Group Filing (Check Applicable  Form filed by One Reporting Person  Form filed by More than One Reporting  Person |                          |   |  |
|   | Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned   |   |              |                                  |          |   |  |                                   |   |        |             |  |                   |              |  |   |                          |   |  |
| 1. Title of Security (Instr. 3)  2. Transacti Date (Month/Day |  |   |              |                                  |          | Execution Date,   |  |                                   | Transaction Disposed Code (Instr. and 5)    |        |             | rities Acquired (<br>ed Of (D) (Instr.   |                   |              | Secu<br>Bend<br>Own                                    | mount of<br>rities<br>eficially<br>ed<br>owing  | Forn<br>(D) c            | rect (I)  | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4)  |
|   |  |   |              |                                  |          |   |  | Code                              | v   | Amount |             | A) or<br>O)  | Price             | Repo         | orted<br>saction(s)<br>r. 3 and 4)                     | (iiist  | u. 4)                    | (111501. 4)   |  |
| Common Stock 02/07/20   |  |   |              |                                  |          | 013   |  | <b>A</b> <sup>(1)</sup>           |   | 227    |             | Α  | \$ <mark>0</mark> | .0           | 91,262   |   | D                        |   |  |
|   | Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) |   |              |                                  |          |   |  |                                   |   |        |             |  |                   |              |  |   |                          |   |  |
| 1. Title of<br>Derivative<br>Security<br>(Instr. 3)           | 2.<br>Conversion<br>or Exercise<br>Price of<br>Derivative<br>Security  | 3. Transaction<br>Date<br>(Month/Day/Year)  | if any       | emed<br>ion Date,<br>//Day/Year) | Code (Ir | Fransaction<br>Code (Instr.<br>3)                           |  | vative rities ired rosed ) . 3, 4 | 6. Date Exer<br>Expiration I<br>(Month/Day/ |        | te          | 7. Title and Amount of Securities Underlying Derivative Security (Instr 3 and 4)  Amou or Numb of Title Share: |                   | ount<br>nber | 8. Price<br>of<br>Derivative<br>Security<br>(Instr. 5) | 9. Number<br>derivative<br>securities<br>Beneficially<br>Owned<br>Following<br>Reported<br>Transaction<br>(Instr. 4)              | / C<br>F<br>O<br>(I<br>4 | 0.<br>Ownership<br>Form:<br>Direct (D)<br>Or Indirect<br>I) (Instr. | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |

## Explanation of Responses:

1. Shares sold to pay tax obligations resulting from the release of restricted stock units.

By: Meera Rao For: Herbert Chang 02/11/2013

\*\* Signature of Reporting Person Date

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

- $^{\star}$  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.