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 | dress of Reporting | g Person [*] | 2. Issuer Name and Ticker or Trading Symbol MONOLITHIC POWER SYSTEMS INC | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) | | | | | |
|--|---------------------|-----------------------|---|--|---|-----------------------------|--|--|--|
| Sciammas | | | [MPWR] | | Director Officer (give title | 10% Owner Other (specify | | | |
| (Last) 79 GREAT O | (First) AKS BLVD | (Middle) | 3. Date of Earliest Transaction (Month/Day/Year) 06/11/2014 | X | below) Sr. V.P.of Sales and | below) d Marketing | | | |
| (Street) | | | 4. If Amendment, Date of Original Filed (Month/Day/Year) | 6. Indi Line) | 6. Individual or Joint/Group Filing (Check Applicab Line) | | | | |
| SAN JOSE | NJOSE CA | 95119 | | X | Form filed by One Reporting Person Form filed by More than One Reporting | | | | |
| (City) | (State) | (Zip) | | | Person | . • | | | |
| Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned | | | | | | | | | |

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) | | 4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5) | | | 5. Amount of Securities Beneficially Owned Following | 6. Ownership Form: Direct (D) or Indirect (I) | 7. Nature of Indirect Beneficial Ownership |
|---------------------------------|--|---|---|---|--|---------------|-------------------------------|--|--|---|
| | | | Code | v | Amount | (A) or (D) | Price | Reported Transaction(s) (Instr. 3 and 4) | (Instr. 4) | (Instr. 4) |
| Common Stock | 06/11/2014 | | М | | 4,100 | A | \$15.03 ⁽¹⁾ | 90,425 | D | |
| Common Stock | 06/11/2014 | | S ⁽²⁾ | | 4,100 | D | \$42.0024(3) | 86,325 | D | |
| Common Stock | 06/12/2014 | | М | | 3,200 | A | \$15.03 ⁽¹⁾ | 89,525 | D | |
| Common Stock | 06/12/2014 | | S ⁽²⁾ | | 3,200 | D | \$42.0113(4) | 86,325 | D | |
| Common Stock | | | | | | | | 2,000 | I | by Family Trust |

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

| | | | (0 / 1 | , | | | | , I | , | | / | | | | |
|---|------------------------|--|---|---|---|---|--|--|--------------------|---|--|--|--|---|-------------------------|
| 1. Title of Derivative Security (Instr. 3) | | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) | | of Der Sec Acc (A) Dis of (| ivative urities uired or posed | 6. Date Exercisable and Expiration Date (Month/Day/Year) | | 7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4) | | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | Beneficial Ownership |
| | | | | Code | v | (A) | (D) | Date Exercisable | Expiration Date | Title | Amount or Number of Shares | | | | |
| Non- Qualified Stock Option (right to buy) | \$15.74 ⁽¹⁾ | 06/11/2014 | | М | | | 4,100 | 10/28/2010 | 10/28/2015 | Common Stock | 4,100 | \$0.0 | 25,900 | D | |
| Non- Qualified Stock Option (right to buy) | \$15.74 ⁽¹⁾ | 06/12/2014 | | М | | | 3,200 | 10/28/2010 | 10/28/2015 | Common Stock | 3,200 | \$0.0 | 22,700 | D | |

Explanation of Responses:

1. On December 11, 2012, the Company's Board declared a special cash dividend of \$1.00 per common share, which was paid on December 28, 2012 to all shareholders of record as of the close of business on December 21, 2012. The Board approved a modification whereby each outstanding option as of December 28, 2012 was increased by a ratio of 1.0471 with a corresponding reduction in the exercise price. 2. In accordance with the reporting person's 10b5-1 trading plan.

3. The price is the weighted average sale price for the transactions reported on this line. The prices for the transactions reported on this line range from \$42.00 to \$42.04. The reporting person undertakes to provide, upon request by the staff of the Securities and Exchange Commission, the issuer, or a security holder of the issuer, full information regarding the number of shares sold at each separate price.

4. The price is the weighted average sale price for the transactions reported on this line. The prices for the transactions reported on this line range from \$42.00 to \$42.06. The reporting person undertakes to provide, upon request by the staff of the Securities and Exchange Commission, the issuer, or a security holder of the issuer, full information regarding the number of shares sold at each separate price.

<u>Sciammas</u>

** 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.