

FORM 4

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

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

OMB APPROVAL
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STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

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 | | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) | |
| Mears Robert J | | Atomera Inc [ATOM] | | <input type="checkbox"/> Director <input type="checkbox"/> 10% Owner <input checked="" type="checkbox"/> Officer (give title below) <input type="checkbox"/> Other (specify below) Chief Technology Officer | |
| (Last) (First) (Middle) | | 3. Date of Earliest Transaction (MM/DD/YYYY) | | | |
| C/O ATOMERA, INC., 750 UNIVERSITY AVENUE, SUITE 280 | | 3/4/2021 | | | |
| (Street) | | 4. If Amendment, Date Original Filed (MM/DD/YYYY) | | 6. Individual or Joint/Group Filing (Check Applicable Line) | |
| LOS GATOS, CA 95032 | | | | <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person | |
| (City) (State) (Zip) | | | | | |

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

| 1. Title of Security (Instr. 3) | 2. Trans. Date | 2A. Deemed Execution Date, if any | 3. Trans. Code (Instr. 8) | | 4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | | | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) |
|------------------------------------|----------------|-----------------------------------------|------------------------------|---|-------------------------------------------------------------------------|---------------|-------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------|
| | | | Code | V | Amount | (A) or (D) | Price | | | |
| Common Stock | 3/4/2021 | | A | | 6256 (1) | A | \$0 | 128065 | D | |
| Common Stock | | | | | | | | 2666 | I | By Spouse |

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

| 1. Title of Derivate Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Trans. Date | 3A. Deemed Execution Date, if any | 4. Trans. Code (Instr. 8) | | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | | 6. Date Exercisable and Expiration Date | | 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 of Derivative Security: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
|------------------------------------------------|--------------------------------------------------------------------|-------------------|-----------------------------------------|------------------------------|---|----------------------------------------------------------------------------------------------------|-----|--------------------------------------------|--------------------|--------------------------------------------------------------------------------------------|----------------------------------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| | | | | Code | V | (A) | (D) | Date Exercisable | Expiration Date | Title | Amount or Number of Shares | | | | |
| Stock Options (Right to Buy) | \$22.38 | 3/4/2021 | | A | | 13904 | | (1) | 3/4/2031 | Common Stock | 13904 | \$0 | 13904 | D | |

Explanation of Responses:

(1) 6.25% shall vest each quarter for the next 48 months commencing on June 1, 2021

Reporting Owners

| Reporting Owner Name / Address | Relationships | | | |
|----------------------------------------------------------------------------------------------------------|---------------|-----------|---------------------------------|-------|
| | Director | 10% Owner | Officer | Other |
| Mears Robert J C/O ATOMERA, INC. 750 UNIVERSITY AVENUE, SUITE 280 LOS GATOS, CA 95032 | | | Chief Technology Officer | |

Signatures

/s/ Robert J. Mears, by Mindi Zimmer, as Attorney-in-Fact

3/5/2021

**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 control number.