

FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

OMB APPROVAL
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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

Form fields including: 1. Name and Address of Reporting Person (Mears Robert J), 2. Issuer Name and Ticker (Atomera Inc [ATOM]), 3. Date of Earliest Transaction (09/01/2017), 5. Relationship of Reporting Person(s) to Issuer (Chief Technology Officer), 6. Individual or Joint/Group Filing (Form filed by One Reporting Person).

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

Table with 8 columns: 1. Title of Security (Instr. 3), 2. Transaction Date, 2A. Deemed Execution Date, 3. Transaction Code, 4. Securities Acquired (A) or Disposed Of (D), 5. Amount of Securities Beneficially Owned, 6. Ownership Form, 7. Nature of Indirect Beneficial Ownership. Rows include Common Stock transactions.

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

Table with 11 columns: 1. Title of Derivative Security, 2. Conversion or Exercise Price of Derivative Security, 3. Transaction Date, 3A. Deemed Execution Date, 4. Transaction Code, 5. Number of Derivative Securities, 6. Date Exercisable and Expiration Date, 7. Title and Amount of Securities, 8. Price of Derivative Security, 9. Number of derivative Securities, 10. Ownership Form, 11. Nature of Indirect Beneficial Ownership.

Explanation of Responses:

1. Represents the number of shares sold by the reporting person to cover tax withholding obligations in connection with the vesting of a restricted stock grant that was previously reported in Table I on the Form 4 filed on March 22, 2017. This sale is to satisfy tax withholding obligations by a "sell to cover" transaction.

Remarks:

/s/ Francis Laurencio, as Attorney-in-Fact 09/06/2017

** 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.