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

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 *

 Mears Robert J
 (Last) (First) (Middle)

 C/O ATOMERA, INC., 750 UNIVERSITY AVENUE, SUITE 280
 (Street)

 LOS GATOS, CA 95032
 (City) (State) (Zip) | 2. Issuer Name **and** Ticker or Trading Symbol

 Atomera Inc [ATOM]

 3. Date of Earliest Transaction (MM/DD/YYYY)

 2/23/2023

 4. If Amendment, Date Original Filed (MM/DD/YYYY) | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable)

 ____ Director ____ 10% Owner
 _X_ Officer (give title below) ____ Other (specify below)
 Chief Technology Officer

 6. Individual or Joint/Group Filing (Check Applicable Line)
 _X_ 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. 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	2/23/2023		A		26832 [1]	A	$0.00	135130	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				
Incentive Stock Option (right to buy)	$6.56	2/23/2023		A		14689		[1]	2/23/2033	**Common Stock**	14689	$0.00	14689	D	
Non-Qualified Stock Option (right to buy)	$6.56	2/23/2023		A		38783		[1]	2/23/2033	**Common Stock**	38783	$0.00	38783	D	

Explanation of Responses:

(1) 6.25% shall vest each quarter for the next 48 months commencing on June 1, 2023

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

By: Mindi Zimmer, as Attorney in Fact For: Robert Mears	**2/28/2023**
**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.