

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

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## INITIAL STATEMENT OF 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. Date of Eve Statement (MM		ent (MM/DD	/YYYY)	3. Issuer Name and Ticker or Trading Symbol					
Trautmann Erwin		8/4/2010	6 A	Atomera In	e [ATMR]				
(Last) (First) (Middle)	4. Rela	tionship of R	eporting Perso	on(s) to Issuer	(Check all applic	icable)			
750 UNIVERSITY AVENUE, SUITE 280	x	Director Officer (give ti marks /	tle below)	10% Owner Other (specify below)					
(Street)  LOS GATOS, CA 95032  (City) (State) (Zip)		nendment, D il Filed (MM/E	DD/YYYY)	X Form filed by	Joint/Group Fili One Reporting Person fore than One Reporti	n	g (Check Applicable Line) Person		
(									
1.Title of Security (Instr. 4)			2. Amount of Securities Beneficially Owned (Instr. 4)		3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indire (Instr. 5)	. Nature of Indirect Beneficial Ownership (nstr. 5)		
Common Stock			3892	2	D				
Table II - Derivativ	e Securities	Beneficially	Owned ( e.g.	, puts, calls, v	varrants, option	s, convertible secu	ırities)		
I. Title of Derivate Security  2. Date Exercisable a Expiration Date (MM/DD/YYYY)		ate	3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)		4. Conversion or Exercise Price of Derivative	Form of Derivative Security:	6. Nature of Indirect Beneficial Ownership (Instr. 5)		
	Date Exercisable	Expiration Date	Title	Amount or Number of Shares	Security	Direct (D) or Indirect (I) (Instr. 5)			
Employee Stock Option (Right to Buy)	(1)	2/27/2025	Common Stock	57001	\$6.60	D			
Employee Stock Option (Right to Buy)	(1)	1/19/2026	Common Stock	873	\$5.70	D			

### **Explanation of Responses:**

(1) All of the shares subject to the option are fully vested and exercisable.

## Remarks:

The reporting person is the Executive Vice President of Strategic Business Development.

#### **Reporting Owners**

Reporting Owner Name / Address	Relationships					
Reporting Owner Name / Address	Director	Relationships tor 10% Owner Officer  See Remarks	Other			
Trautmann Erwin						
750 UNIVERSITY AVENUE, SUITE 280	X		See Remarks			
LOS GATOS, CA 95032						

#### **Signatures**

Erwin Trautmann 8

\*\* Signature of Reporting Person

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 5(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.