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

## INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

#### OMB APPROVAL

OMB Number: 3235-0104 Expires: January 31, 2005 Estimated average burden hours per response... 0.5

(Print or Type Responses)

<ol> <li>Name and Address of Reporting Person <u>*</u></li> <li>Â Moghadam Farhad</li> </ol>			<ul><li>2. Date of Event Requiring</li><li>Statement</li><li>(Month/Day/Year)</li></ul>	3. Issuer Name <b>and</b> Ticker or Trading Symbol Ascent Solar Technologies, Inc. [ASTI]				
(Last)	(First)	(Middle)	08/03/2009	4. Relationship of Reporting Person(s) to Issuer			5. If Amendment, Date Original Filed(Month/Day/Year)	
C/O ASCENT SOLAR TECHNOLOGIES, INC., 12300 GRANT STREET (Street)				(Check all applicable) Director10% Owner XOfficerOther (give title below) (specify below) President and CEO		Owner r	6. Individual or Joint/Group Filing(Check Applicable Line) _X_ Form filed by One Reporting Person	
THORNTON, CO 80241						Form filed by More than One Reporting Person		
(City)	(State)	(Zip)	Table I -	Table I - Non-Derivative Securities Beneficially Owned				
1.Title of Secu (Instr. 4)	ırity		2. Amount o Beneficially (Instr. 4)	of Securities y Owned	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Na Owne (Instr	*	
Common St	tock		14,000 (1)		D	Â		
Reminder: Report on a separate line for each class of securities be owned directly or indirectly.				cially	SEC 1473 (7-02	2)		
	inforr requi	mation contained to respond	pond to the collection of ained in this form are no and unless the form disp MB control number.	ot				

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

1. Title of Derivative	2. Date Exercisable and	3. Title and Amount of	4.	5.	6. Nature of Indirect
Security	Expiration Date	Securities Underlying	Conversion	Ownership	Beneficial
(Instr. 4)	(Month/Day/Year)	Derivative Security	or Exercise	Form of	Ownership
		(Instr. 4)	Price of	Derivative	(Instr. 5)
			Derivative	Security:	

### Edgar Filing: Moghadam Farhad - Form 3

	Date Exercisable	Expiration Date	Title	Amount or Number of Shares	Security	Direct (D) or Indirect (I) (Instr. 5)	
Restricted Stock Units	08/03/2011 <u>(2)</u>	(2)	Common Stock	55,000	\$ <u>(3)</u>	D	Â
Restricted Stock Units	08/03/2012 <u>(4)</u>	(4)	Common Stock	35,000	\$ <u>(3)</u>	D	Â
Common Stock Option (Right to Buy)	08/03/2010 <u>(5)</u>	08/03/2019	Common Stock	100,000	\$ 0	D	Â
Common Stock Option (Right to Buy)	08/03/2010(5)	08/03/2019	Common Stock	200,000	\$0	D	Â

# **Reporting Owners**

<b>Reporting Owner Name / Address</b>	Relationships					
	Director	10% Owner	Officer	Other		
Moghadam Farhad C/O ASCENT SOLAR TECHNOLOGIES, INC. 12300 GRANT STREET THORNTON, CO 80241	Â	Â	President and CEO	Â		
Signatures						
David C. Wang, as attorney-in-fact for Farhad Moghadam		08/05/2009				
**Signature of Reporting Person		Date				

## **Explanation of Responses:**

- \* 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).
- Of the restricted stock units granted to Dr. Moghadam on August 3, 2009, 20,000 vested immediately. Pursuant to the award agreement(1) and the Issuer's 2008 Restricted Stock Plan under which the award was made, 6,000 shares were retained by the Issuer for purposes of tax withholding, resulting in a net issuance of 14,000 shares.
- (2) The restricted stock units vest in the following amounts on the following dates: 20,000 on August 3, 2011; 15,000 on August 3, 2012; and 20,000 on August 3, 2013.
- (3) Each restricted stock unit represents a contingent right to receive one share of the Issuer's common stock.
- Up to 15,000 restricted stock units will vest on August 3, 2012, and up to 20,000 restricted stock units will vest on August 3, 2013, in(4) each case the Issuer's Board of Directors or its Compensation Committee will determine the total amount to be vested based upon an evaluation of the Dr. Moghadam's performance relative to agreed upon performance criteria.
- (5) The stock option vests in the following amounts on the following dates: 25% of the option vests on August 3, 2010; 25% of the option vests on August 3, 2012; and 25% of the option vests on August 3, 2013.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *See* Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.