Ascent Solar Technologies, Inc.

Form 4

September 20, 2007

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

OMB

Check this box if no longer subject to

3235-0287 Number: January 31, Expires:

2005

OMB APPROVAL

Section 16. Form 4 or Form 5

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF **SECURITIES**

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obligations may continue. See Instruction

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

0.5

1(b).

(Print or Type Responses)

1. Name and Address of Reporting Person * 2. Issuer Name and Ticker or Trading Casteel Janet Symbol

5. Relationship of Reporting Person(s) to Issuer

Ascent Solar Technologies, Inc.

(Check all applicable)

[ASTI]

(Last) (First) (Middle)

(Street)

3. Date of Earliest Transaction (Month/Day/Year)

10% Owner Director X_ Officer (give title Other (specify below)

09/18/2007

C/O ASCENT SOLAR TECHNOLOGIES, INC., 8120 SHAFFER PARKWAY

4. If Amendment, Date Original

6. Individual or Joint/Group Filing(Check

Chief Accounting Officer

Filed(Month/Day/Year)

Applicable Line) _X_ Form filed by One Reporting Person Form filed by More than One Reporting

LITTLETON, CO 80127

(City) (State) (Zip) Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1.Title of	2. Transaction Date	2A. Deemed	3.	4. Securit	ties Ac	equired	5. Amount of	6. Ownership	7. Nature of
Security	(Month/Day/Year)	Execution Date, if	Transaction(A) or Disposed of (D)			d of (D)	Securities	Form: Direct	Indirect
(Instr. 3)		any	Code	(Instr. 3, 4 and 5)			Beneficially	(D) or	Beneficial
		(Month/Day/Year)	(Instr. 8)			Owned	Indirect (I)	Ownership	
							Following	(Instr. 4)	(Instr. 4)
					(A)		Reported		
					(A)		Transaction(s)		
			Code V	Amount	or (D)	Price	(Instr. 3 and 4)		
Common Stock	09/18/2007		M	1,000	A	\$ 4.25	18,000	D	
Common Stock	09/18/2007		S <u>(1)</u>	1,000	D	\$ 10.24	17,000	D	

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transactic Code (Instr. 8)	Securities		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Underlying Securities (Instr. 3 and 4)	
				Code V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares
Common Stock (Right to Buy)	\$ 4.25	09/18/2007		M	1	,000,	03/31/2006(2)	02/27/2016	Common Stock	1,000

Reporting Owners

Reporting Owner Name / Address	Relationships						
. 0	Director	10% Owner	Officer	Other			
Casteel Janet C/O ASCENT SOLAR TECHNOLOGIES, INC. 8120 SHAFFER PARKWAY LITTLETON, CO 80127			Chief Accounting Officer				

Signatures

David C. Wang, as attorney-in-fact for Janet
Casteel

09/20/2007

**Signature of Reporting Person Date

Explanation of Responses:

- * 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).
- (1) The sales reported in this Form 4 were effected pursuant to a Rule 10b5-1 trading plan adopted by the reporting person on June 26, 2007.
- (2) Of the remaing unvested options in this grant, options to purchase 3,572 shares vest on September 30, 2007, March 31, 2008 and September 30, 2008, and options to purchase 3,568 shares vest on March 31, 2009.
- Following this transaction, Ms. Casteel holds the following securities: vested options (or options that will vest within 60 days) to purchase 12,287 that expire on February 27, 2016; unvested options to purchase 13,000 shares of common stock that expire on November 18, 2015, and unvested options to purchase 10,713 shares of common stock that expire on February 27, 2016.

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.

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