

Ascent Solar Technologies, Inc.
 Form 4
 August 21, 2007

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 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

(Print or Type Responses)

1. Name and Address of Reporting Person *
 Casteel Janet

2. Issuer Name and Ticker or Trading Symbol
 Ascent Solar Technologies, Inc.
 [ASTI]

5. Relationship of Reporting Person(s) to Issuer
 (Check all applicable)

(Last) (First) (Middle)
 C/O ASCENT SOLAR TECHNOLOGIES, INC., 8120 SHAFER PARKWAY
 (Street)

3. Date of Earliest Transaction (Month/Day/Year)
 08/20/2007

____ Director _____ 10% Owner
 Officer (give title below) _____ Other (specify below)
 Chief Accounting Officer

LITTLETON, CO 80127
 (City) (State) (Zip)

4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)
 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. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction 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 Ownership (Instr. 4)			
				(A) or (D)	Price					
				Code	V	Amount				
Common Stock	08/20/2007		M		1,000	A	\$ 4.25	18,000	D	
Common Stock	08/20/2007		S ⁽¹⁾		1,000	D	\$ 7.42	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. Transaction 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 (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	Amount or Number of Shares
Common Stock Option (Right to Buy)	\$ 4.25	08/20/2007		M	1,000	03/31/2006 ⁽²⁾ 02/27/2016	Common Stock	1,000

Reporting Owners

Reporting Owner Name / Address	Relationships			
	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 08/21/2007

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 remaining 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
(3) 13,287 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 10,712 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.

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