Ascent Solar Technologies, Inc. Form SC 13G May 15, 2007

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

SCHEDULE 13G

Under the Securities Exchange Act of 1934 (Amendment No.)*

| Ascent Solar Technologies, Inc. |
|---|
| (Name of Issuer) |
| Common Stock |
| (Title of Class of Securities) |
| 043635101 |
| (CUSIP Number) |
| |
| May 11, 2007 |
| (Date of Event which Requires Filing of this Statement) |

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Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

[X] Rule 13d-1(b) [X] Rule 13d-1(c) [] Rule 13d-1(d)

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

^{*} The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

SCHEDULE 13G CUSIP No. 043635101

| | 1. | Names of Reporting Persons. Chester L.F. and Jacqueline M. Paulson as Joint Tenants I.R.S. Identification Nos. of above persons (entities only). | | |
|--|-----|--|----------------------------------|--|
| | 2. | Check the Appropriate Box if a Member of a Group (See Instructions) (a) [] (b) [X] | | |
| | 3. | SEC USE ONLY | | |
| | 4. | Citizenship or Place of Organization United States of America | | |
| | | 5. | Sole Voting Power 57,600 | |
| Number of Shares Beneficially Owned by Each Reporting Person With: | | 6. | Shared Voting Power 930,000 | |
| | | 7. | Sole Dispositive Power 57,600 | |
| | | 8. | Shared Dispositive Power 930,000 | |
| | 9. | Aggregate Amount Beneficially Owned by Each Reporting Person 987,600 | | |
| | 10. | Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) [] | | |
| | 11. | Percent of Class Represented by Amount in Row (9) 11.5199 | | |
| | 12. | Type of Reporting Person IN | | |

Chester L.F. and Jacqueline M. Paulson (together the "Paulsons") may be deemed to control Paulson Capital Corp. ("PLCC"), which wholly owns Paulson Investment Company, Inc. ("PICI"). The Paulsons control and are the sole and equal members of the Paulson Family LLC ("LLC") which is a controlling shareholder of PLCC, which is the parent company for PICI.

SCHEDULE 13G CUSIP No. 043635101

| | 1. | Names of Reporting Persons. Paulson Capital Corp. I.R.S. Identification Nos. of above persons (entities only). 93-0589534 | | | |
|--|-----|---|----------------------------------|--|--|
| | 2. | Check the Appropriate Box if a Member of a Group (See Instructions) (a) [] (b) [X] | | | |
| | 3. | SEC USE ONLY | | | |
| | 4. | Citizenship or Place of Organization United States of America | | | |
| | | 5. | Sole Voting Power 0 | | |
| Number of Shares Beneficially Owned by Each Reporting Person With: | | 6. | Shared Voting Power 930,000 | | |
| | | 7. | Sole Dispositive Power 0 | | |
| | | 8. | Shared Dispositive Power 930,000 | | |
| | 9. | Aggregate Amount Beneficially Owned by Each Reporting Person 930,000 | | | |
| | 10. | Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) [] | | | |
| | 11. | Percent of Class Represented by Amount in Row (9) 10.9214 | | | |
| | 12. | Type of Reporting Person BD, CO | | | |

Paulson Capital Corp. ("PLCC") wholly owns Paulson Investment Company, Inc. ("PICI"). PLCC is a corporation and PICI is a broker-dealer.

Item 1.

(a) Name of Issuer

Ascent Solar Technologies, Inc.

(b) Address of Issuer's Principal Executive Offices

8120 Shaffer Parkway Littleton, CO 80127

Item 2.

(a) Name of Person Filing

This statement is being filed jointly by each of the following persons pursuant to Rule 13d-1(k) promulgated by the Securities and Exchange Commission under Section 13 of the Securities Exchange Act of 1934, as amended: (i) Chester L.F. Paulson and Jacqueline M. Paulson, as joint tenants and each individually (together, the "Paulsons") who are each 50% members of the Paulson Family LLC ("LLC"); and (ii) Paulson Capital Corporation ("PLCC"), an Oregon Corporation, which directly wholly owns Paulson Investment Company, Inc. ("PICI"), an Oregon corporation. The Paulsons and PLCC are collectively referred to as the "Reporting Persons". The Reporting Persons schedule 13G Joint Filing Agreement is attached as Exhibit 1.

Information with respect to the Reporting Persons is given solely by such Reporting Persons, and no Reporting Person assumes responsibility for the accuracy or completeness of the information by another Reporting Person, except as otherwise provided in Rule 13d-1(k). By their signature on this statement, each of the Reporting Persons agree that this statement is filed on behalf of such Reporting Persons.

(b) Address of Principal Business Office or, if none, Residence

The Paulsons, PLCC's, and PICI's principal business address is:

811 SW Naito Parkway, Suite 200 Portland, OR 97204

(c) Citizenship

The Paulsons are citizens of the United States of America, and PLCC and PICI are organized under the laws of the United States of America.

(d) Title of Class of Securities

Common Stock for Ascent Solar Technologies, Inc.

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(e) CUSIP Number

043635101

Item 3. If this statement is filed pursuant to §§240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

| (a) | [X] | Broker or dealer registered under section 15 of the Act (15 U.S.C. 780). |
|-----|-------|---|
| (b) | [] | Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c). |
| (c) | [] | Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c). |
| (d) | [] | Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C 80a-8). |
| (e) | [] | An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E); |
| (f) | [] | An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F); |
| (g) | [] | A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G); |
| (h) | [] | A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813); |
| (i) | [] | A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3); |
| (j) | [] | Group, in accordance with §240.13d-1(b)(1)(ii)(J). |

Item 4. Ownership.

(a) Amount beneficially owned:

The Paulsons may be deemed to be the beneficial owners of a total of 987,600 shares of Issuer Common Stock. The precise owners of these shares is described more specifically in this paragraph. The Paulsons may be deemed to control Paulson Capital Corp. ("PLCC"), which wholly owns Paulson Investment Company, Inc. ("PICI"). The Paulsons control and are the sole and equal members of the Paulson Family LLC ("LLC"). Chester Paulson directly owns Underwriter Warrants exercisable into 57,600 shares of Issuer Common Stock. The Paulsons may be deemed to indirectly own Underwriter Warrants exercisable into 930,000 shares of Issuer Common Stock through PICI. Pursuant to SEC Rule 13d-4, the Paulsons expressly disclaim beneficial ownership of the Underwriter Warrants exercisable into 930,000 shares of Issuer Common Stock of which PICI is record owner.

(b) Percent of class:

As of April 27, 2007, the Issuer had 7,585,386 shares of Issuer Common Stock issued and outstanding, as reported in their 10-QSB filed May 10, 2007 (the "Issuer Outstanding Shares"). The Paulsons actual and deemed beneficial ownership of Issuer Common Stock represented approximately 11.5199% of the Issuer Outstanding Shares. PLCC's indirect beneficial ownership of Issuer Common Stock represented approximately 10.9214% of the Issuer Outstanding Shares.

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Number of shares as to which the person has:

(c)

(i) Sole power to vote or to direct the vote The Paulsons have sole power to vote or direct the vote of 57,600 shares. PLCC has sole power to vote or direct the vote of 0 shares. (ii) Shared power to vote or to direct the vote The Paulsons have shared power to vote or direct the vote of 930,000 shares. PLCC has shared power to vote or direct the vote of 930,000 shares. (iii) Sole power to dispose or to direct the disposition of The Paulsons have sole power to dispose or direct the disposition of 57,600 shares. PLCC has sole power to dispose or direct the disposition of 0 shares. (iv) Shared power to dispose or to direct the disposition of The Paulsons have shared power to dispose or direct the disposition of 930,000 shares. PLCC has shared power to dispose or direct the disposition of 930,000 shares. Item 5. Ownership of Five Percent or Less of a Class If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following []. Instruction: Dissolution of a group requires a response to this item. Item 6. Ownership of More than Five Percent on Behalf of Another Person Not Applicable Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company or Control Person See Item 4(a) Item 8. Identification and Classification of Members of the Group Not Applicable Item 9. **Notice of Dissolution of Group**

Not Applicable

Item 10. Certifications

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: May 15, 2007

Chester L.F. Paulson

By: /s/ Chester L.F. Paulson

Chester L.F. Paulson
Title: Individually

Jacqueline M. Paulson

By: /s/ Jacqueline M. Paulson

Jacqueline M. Paulson
Title: Individually

Paulson Capital Corp.

By: /s/ Chester L.F. Paulson

Chester L.F. Paulson

Title: Chairman of the Board

Exhibit 1

SCHEDULE 13G JOINT FILING AGREEMENT

The undersigned and each other person executing this joint filing agreement (this "Agreement") agree as follows:

- (i) The undersigned and each other person executing this Agreement are individually eligible to use the Schedule 13G in accordance with the Securities Exchange Act of 1934 and the regulations promulgated thereunder is attached and such schedule is filed on behalf of the undersigned and each other person executing this Agreement; and
- (ii) The undersigned and each other person executing this Agreement are responsible for the timely filing of such Schedule 13G and any amendments thereto, and for the completeness and accuracy of the information concerning such person contained herein; provided, however, that none of the undersigned or any other person executing this Agreement is responsible for the completeness or accuracy of the information statement concerning any other persons making the filing, unless such person knows or has reason to believe that such information is inaccurate.

This Agreement may be executed, in any number of counterparts, each of which shall be deemed to be an original, but all of which, taken together, shall constitute one and the same instrument.

DATED: May 15, 2007 PAULSON CAPITAL CORPORATION

/S/ CHESTER L.F. PAULSON

By: Chester L.F. Paulson Its: Chairman of the Board

PAULSON INVESTMENT COMPANY, INC.

/S/ CHESTER L.F. PAULSON

By: Chester L.F. Paulson Its: Chairman of the Board

/S/ CHESTER L.F. PAULSON

By: Chester L.F. Paulson, an individual

/S/ JACQUELINE M. PAULSON

By: Jacqueline M. Paulson, an individual