

Ascent Solar Technologies, Inc.  
Form SC 13G  
February 13, 2007

**UNITED STATES  
SECURITIES AND EXCHANGE  
COMMISSION**  
Washington, D.C. 20549  
**SCHEDULE 13G**

OMB APPROVAL  
OMB Number:  
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Under the Securities Exchange Act of 1934  
(Amendment No. )\*

**ASCENT SOLAR TECHNOLOGIES, INC.**

(Name of Issuer)

**COMMON STOCK**

(Title of Class of Securities)

**043635 10 1**

(CUSIP Number)

**December 31, 2006**

(Date of Event Which Requires Filing of this Statement)

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

- Rule 13d-1(b)
- Rule 13d-1(c)
- Rule 13d-1(d)

\*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.

The information required in 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).



CUSIP No. 043635 10 1

- |   |   |    |                                |    |                            |    |                                     |    |                                 |
|---|---|----|--------------------------------|----|----------------------------|----|-------------------------------------|----|---------------------------------|
| 1.  | Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only)<br>ITN Energy Systems, Inc.   |    |                                |    |                            |    |                                     |    |                                 |
| 2.  | Check the Appropriate Box if a Member of a Group (See Instructions)<br>(a) <input type="radio"/><br>(b) <input checked="" type="radio"/>  |    |                                |    |                            |    |                                     |    |                                 |
| 3.  | SEC Use Only  |    |                                |    |                            |    |                                     |    |                                 |
| 4.  | Citizenship or Place of Organization<br>Colorado  |    |                                |    |                            |    |                                     |    |                                 |
| Number of<br>Shares<br>Beneficially<br>Owned by<br>Each<br>Reporting<br>Person With | <table border="0"> <tr> <td style="vertical-align: top;">5.</td> <td style="vertical-align: top;">Sole Voting Power<br/>1,028,000</td> </tr> <tr> <td style="vertical-align: top;">6.</td> <td style="vertical-align: top;">Shared Voting Power<br/>-0-</td> </tr> <tr> <td style="vertical-align: top;">7.</td> <td style="vertical-align: top;">Sole Dispositive Power<br/>1,028,000</td> </tr> <tr> <td style="vertical-align: top;">8.</td> <td style="vertical-align: top;">Shared Dispositive Power<br/>-0-</td> </tr> </table> | 5. | Sole Voting Power<br>1,028,000 | 6. | Shared Voting Power<br>-0- | 7. | Sole Dispositive Power<br>1,028,000 | 8. | Shared Dispositive Power<br>-0- |
| 5.  | Sole Voting Power<br>1,028,000  |    |                                |    |                            |    |                                     |    |                                 |
| 6.  | Shared Voting Power<br>-0-  |    |                                |    |                            |    |                                     |    |                                 |
| 7.  | Sole Dispositive Power<br>1,028,000   |    |                                |    |                            |    |                                     |    |                                 |
| 8.  | Shared Dispositive Power<br>-0-   |    |                                |    |                            |    |                                     |    |                                 |
| 9.  | Aggregate Amount Beneficially Owned by Each Reporting Person<br>1,028,000   |    |                                |    |                            |    |                                     |    |                                 |
| 10.   | Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) <input type="radio"/><br>N/A  |    |                                |    |                            |    |                                     |    |                                 |
| 11.   | Percent of Class Represented by Amount in Row (9)<br>19.2%  |    |                                |    |                            |    |                                     |    |                                 |
| 12.   | Type of Reporting Person (See Instructions)<br>CO   |    |                                |    |                            |    |                                     |    |                                 |

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1. Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only)  
Inica, Inc.
  2. Check the Appropriate Box if a Member of a Group (See Instructions)  
(a)  o  
(b)  x
  3. SEC Use Only
  4. Citizenship or Place of Organization  
Colorado
- |   |    |  |                                     |
|---|----|--|-------------------------------------|
|   | 5. |  | Sole Voting Power<br>1,028,000      |
| Number of<br>Shares<br>Beneficially<br>Owned by<br>Each<br>Reporting<br>Person With | 6. |  | Shared Voting Power<br>-0-          |
|   | 7. |  | Sole Dispositive Power<br>1,028,000 |
|   | 8. |  | Shared Dispositive Power<br>-0-     |
9. Aggregate Amount Beneficially Owned by Each Reporting Person  
1,028,000
  10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)  O  
N/A
  11. Percent of Class Represented by Amount in Row (9)  
19.2%
  12. Type of Reporting Person (See Instructions)  
CO

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1. Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only)  
Mohan S. Misra
2. Check the Appropriate Box if a Member of a Group (See Instructions)  
(a)   
(b)
3. SEC Use Only
4. Citizenship or Place of Organization  
United States of America
5. Sole Voting Power  
430,000
6. Shared Voting Power  
1,028,000
7. Sole Dispositive Power  
430,000
8. Shared Dispositive Power  
1,028,000
9. Aggregate Amount Beneficially Owned by Each Reporting Person  
1,458,000
10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)   
N/A
11. Percent of Class Represented by Amount in Row (9)  
27.3%
12. Type of Reporting Person (See Instructions)  
IN

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Item 1.

- (a) Name of Issuer  
Ascent Solar Technologies, Inc.
- (b) Address of Issuer's Principal Executive Offices  
8120 Shaffer Parkway  
  
Littleton, Colorado 80127

Item 2.

- (a) Name of Person Filing  
ITN Energy Systems, Inc.  
  
Inica, Inc.
- (b) Address of Principal Business Office or, if none, Residence  
ITN Energy Systems, Inc.  
  
Inica, Inc.  
  
Mohan S. Misra  
8130 Shaffer Parkway  
  
Littleton, Colorado 80127
- (c) Citizenship  
ITN Energy Systems, Inc. Colorado  
  
Inica, Inc. Colorado
- (d) Title of Class of Securities  
Common Stock
- (e) CUSIP Number  
043635 10 1

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)  Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).
- (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).



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Item 4. Ownership

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

(a) Amount beneficially owned:

ITN Energy Systems, Inc. 1,028,000

Inica, Inc. 1,028,000

(b) Mohan S. Misra 1,458,000  
Percent of class:

ITN Energy Systems, Inc. 19.2%

Inica, Inc. 19.2%

(c) Mohan S. Misra 27.3%  
Number of shares as to which the person has:

(i) Sole power to vote or to direct the vote

ITN Energy Systems, Inc. 1,028,000

Inica, Inc. 1,028,000

(ii) Mohan S. Misra 430,000  
Shared power to vote or to direct the vote

ITN Energy Systems, Inc. 0

Inica, Inc. 0

(iii) Mohan S. Misra 1,028,000  
Sole power to dispose or to direct the disposition of

ITN Energy Systems, Inc. 1,028,000

Inica, Inc. 1,028,000

(iv) Mohan S. Misra 430,000  
Shared power to dispose or to direct the disposition of

ITN Energy Systems, Inc. 0

Inica, Inc. 0

Mohan S. Misra 1,028,000

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  O.

N/A

Item 6. Ownership of More than Five Percent on Behalf of Another Person



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N/A

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company or Control Person  
N/A

Item 8. Identification and Classification of Members of the Group  
N/A

Item 9. Notice of Dissolution of Group  
N/A

Item 10. Certification  
N/A

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**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.

February 12, 2007

ITN ENERGY SYSTEMS, INC.

By: /s/ Mohan S. Misra  
Name: Mohan Misra  
Title: President

INICA, INC.

By: /s/ Mohan S. Misra  
Name: Mohan S. Misra  
Title: President

/s/ Mohan S. Misra  
Mohan S. Misra

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**EXHIBIT A**

**AGREEMENT OF JOINT FILING**

The undersigned hereby agree that they are filing jointly pursuant to Rule 13d-1 of the Securities Exchange Act of 1934 a report on Schedule 13G, containing the information required by Schedule 13G, for shares of the common stock of Ascent Solar Technologies, Inc. beneficially owned by ITN Energy Systems, Inc., Inica, Inc. and Mohan S. Misra, and such other holdings as may be reported therein.

Dated: February 12, 2007

ITN ENERGY SYSTEMS, INC.

By: /s/ Mohan S. Misra  
Name: Mohan S. Misra  
Title: President

INICA, INC.

By: /s/ Mohan S. Misra  
Name: Mohan S. Misra  
Title: President

/s/ Mohan S. Misra  
Mohan S. Misra