

Ascent Solar Technologies, Inc.  
Form 10-Q  
August 15, 2011  
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**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM 10-Q**

(Mark One)

**QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended June 30, 2011

or

**TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the Transition Period from            to

Commission File No. 001-32919

**Ascent Solar Technologies, Inc.**

(Exact name of registrant as specified in its charter)

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<b>Delaware</b> (State or other jurisdiction of incorporation or organization)	<b>20-3672603</b> (I.R.S. Employer Identification No.)
<b>12300 Grant Street, Thornton, CO</b> (Address of principal executive offices)	<b>80241</b> (Zip Code)
<b>Registrant's telephone number including area code: 720-872-5000</b>	

Indicate by check mark whether the issuer (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act:

Large accelerated filer <input type="checkbox"/>	Accelerated filer <input type="checkbox"/>
Non-accelerated filer <input type="checkbox"/> (Do not check if a smaller reporting company)	Smaller reporting company <input checked="" type="checkbox"/>

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No

As of August 15, 2011, there were 38,910,306 shares of our common stock issued and outstanding.

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**ASCENT SOLAR TECHNOLOGIES, INC.**

**Quarterly Report on Form 10-Q**

**Quarterly Period Ended June 30, 2011**

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**Table of Contents****PART I. FINANCIAL INFORMATION****Item 1. Condensed Financial Statements****ASCENT SOLAR TECHNOLOGIES, INC.****(A Development Stage Company)****CONDENSED BALANCE SHEETS****(Unaudited)**

	<b>June 30, 2011</b>	<b>December 31, 2010</b>
<b>ASSETS</b>		
<b>Current Assets:</b>		
Cash and cash equivalents	\$ 9,963,178	\$ 27,303,217
Investments	14,891,326	17,486,409
Trade receivables	646,210	485,026
Related party receivables		2,524
Inventories	3,381,951	1,876,834
Prepaid expenses and other current assets	391,995	510,348
<b>Total current assets</b>	<b>29,274,660</b>	<b>47,664,358</b>
<b>Property, Plant and Equipment:</b>	<b>36,088,335</b>	<b>110,709,320</b>
Less accumulated depreciation and amortization	(5,205,373)	(10,706,478)
	30,882,962	100,002,842
<b>Other Assets:</b>		
Restricted cash	6,426,390	3,259,350
Deposits on manufacturing equipment	2,176,072	8,770,693
Patents, net of amortization of \$21,421 and \$17,186, respectively	273,522	259,439
Other non-current assets	62,187	64,062
	8,938,171	12,353,544
<b>Total Assets</b>	<b>\$ 69,095,793</b>	<b>\$ 160,020,744</b>
<b>LIABILITIES AND STOCKHOLDERS EQUITY</b>		
<b>Current Liabilities:</b>		
Accounts payable	\$ 675,142	\$ 1,092,449
Related party payables	2,148	54,037
Accrued expenses	3,386,657	1,810,851
Accrued property, plant and equipment	4,695,907	2,385,301
Deferred revenue	23,010	250,705
Current portion of long-term debt	640,028	232,257
Current portion of long-term debt related party		350,000
<b>Total current liabilities</b>	<b>9,422,892</b>	<b>6,175,600</b>
<b>Long-Term Debt</b>	<b>6,741,140</b>	<b>6,863,129</b>
<b>Long-Term Debt - Related Party</b>		<b>400,000</b>

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<b>Accrued Warranty Liability</b>	21,703	15,900
<b>Commitments and Contingencies (Notes 4, 12 &amp; 18)</b>		
<b>Stockholders' Equity:</b>		
Preferred stock, \$0.0001 par value, 25,000,000 shares authorized, no shares outstanding		
Common stock, \$0.0001 par value, 75,000,000 shares authorized; 32,494,306 and 32,265,587 shares issued and outstanding at June 30, 2011 and December 31, 2010, respectively	3,249	3,226
Additional paid in capital	224,992,010	223,826,191
Deficit accumulated during the development stage	(172,086,598)	(77,263,076)
Accumulated other comprehensive income (loss)	1,397	(226)
Total stockholders' equity	52,910,058	146,566,115
<b>Total Liabilities and Stockholders' Equity</b>	<b>\$ 69,095,793</b>	<b>\$ 160,020,744</b>

The accompanying notes are an integral part of these condensed financial statements.

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## ASCENT SOLAR TECHNOLOGIES, INC.

(A Development Stage Company)

## CONDENSED STATEMENTS OF OPERATIONS

(Unaudited)

					For the Period from Inception (October 18, 2005)
	For the Three Months Ended June 30, 2011	2010	For the Six Months Ended June 30, 2011	2010	Through June 30, 2011
<b>Revenues</b>	\$ 1,026,984	\$ 446,014	\$ 2,210,639	\$ 662,209	\$ 8,658,877
<b>Costs and Expenses</b>					
Research and development	6,701,046	5,928,020	15,295,772	10,486,338	70,859,689
Selling, general and administrative	1,641,710	1,919,076	4,095,578	4,050,182	32,787,079
Impairment loss	78,000,000		78,000,000		79,769,480
<b>Total Costs and Expenses</b>	86,342,756	7,847,096	97,391,350	14,536,520	183,416,248
<b>Loss from Operations</b>	(85,315,772)	(7,401,082)	(95,180,711)	(13,874,311)	(174,757,371)
<b>Other Income/(Expense)</b>					
Interest expense					(1,087,293)
Interest income	13,916	4,456	29,074	16,566	4,447,299
Realized gain on investments		193	433	193	27,907
Realized gain (loss) on forward contracts	63,915		63,915		(1,430,766)
Foreign currency transaction gain (loss)	69,006	(295,997)	263,767	(438,627)	713,626
	146,837	(291,348)	357,189	(421,868)	2,670,773
<b>Net Loss</b>	\$ (85,168,935)	\$ (7,692,430)	\$ (94,823,522)	\$ (14,296,179)	\$ (172,086,598)
<b>Net Loss Per Share</b> (Basic and diluted)	\$ (2.63)	\$ (0.29)	\$ (2.93)	\$ (0.54)	
<b>Weighted Average Common Shares Outstanding</b> (Basic and diluted)	32,427,846	26,730,175	32,361,011	26,702,297	

The accompanying notes are an integral part of these condensed financial statements.

**Table of Contents****ASCENT SOLAR TECHNOLOGIES, INC.****(A Development Stage Company)****CONDENSED STATEMENTS OF STOCKHOLDERS EQUITY AND COMPREHENSIVE INCOME (LOSS)****(Unaudited)****For the Period from Inception (October 18, 2005) through June 30, 2011**

	Common Stock		Preferred Stock		Additional	Accumulated	Accumulated	Total
	Shares	Amount	Shares	Amount	Paid-In	Deficit	Other	Stockholders
					Capital		Comprehensive	Equity
<b>Balance at inception, October 18, 2005</b>								
Proceeds from sale of common stock (11/05 @ \$.04 per share)	972,000	\$ 97	\$	\$	38,783	\$	\$	\$ 38,880
Stock based compensation:								
Founders stock					933,120			933,120
Stock options					26,004			26,004
Net loss						(1,207,234)		(1,207,234)
<b>Balance, December 31, 2005</b>	972,000	\$ 97	\$	\$	997,907	\$ (1,207,234)	\$	\$ (209,230)
Transfer of assets at historical cost (1/06 @ \$0.03 per share)	1,028,000	103			31,097			31,200
Proceeds from IPO (7/06 @ \$5.50 per unit)	3,000,000	300			16,499,700			16,500,000
IPO costs					(2,392,071)			(2,392,071)
Stock issued to bridge loan lenders (7/06 @ \$2.75 per share)	290,894	29			799,971			800,000
Exercise of stock options (9/06 & 12/06 @ \$0.10 per share)	31,200	3			3,117			3,120
Stock based compensation stock options					348,943			348,943
Net loss						(4,180,912)		(4,180,912)
<b>Balance, December 31, 2006</b>	5,322,094	\$ 532	\$	\$	16,288,664	\$ (5,388,146)	\$	\$ 10,901,050
Exercise of stock options (1/07 - 12/07 @ \$.10) (7/07 - 12/07 @ \$4.25) (9/07 - 12/07 @ \$2.51 - \$2.76)	169,963	17			346,417			346,434
Conversion of Class A public warrants at \$6.60	3,098,382	310			20,449,011			20,449,321
Redemption of Class A public warrants at \$0.25 per share					(48,128)			(48,128)
Conversion of Class B public warrants at \$11.00 per share	11,000	1			120,999			121,000
Stock based compensation stock options					1,734,879			1,734,879
Proceeds from private placement:								
Common stock (3/07 @ \$5.77 and 8/07 @ \$7.198)	2,534,462	254			15,962,003			15,962,257
Class B public warrants (8/07 @ \$1.91)					3,754,468			3,754,468
Private placement costs					(75,807)			(75,807)
Exercise of representative s warrants (9/07 - 11/07 @ \$6.60 per unit)	300,000	30			1,979,970			1,980,000
Net loss						(6,503,419)		(6,503,419)
<b>Balance, December 31, 2007</b>	11,435,901	\$ 1,144	\$	\$	60,512,476	\$ (11,891,565)	\$	\$ 48,622,055

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The accompanying notes are an integral part of these condensed financial statements.



**Table of Contents****ASCENT SOLAR TECHNOLOGIES, INC.****(A Development Stage Company)****CONDENSED STATEMENTS OF STOCKHOLDERS EQUITY AND COMPREHENSIVE INCOME (LOSS)****(Continued)****(Unaudited)****For the Period from Inception (October 18, 2005) through June 30, 2011**

	Common Stock		Preferred Stock	Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Income	Total Stockholders Equity
	Shares	Amount	Shares Amount				
<b>Balance, December 31, 2007</b>	11,435,901	\$ 1,144	\$	\$ 60,512,476	\$ (11,891,565)	\$	\$ 48,622,055
<b>Components of comprehensive loss</b>							
Unrealized gain on investments						331,068	331,068
Net loss					(13,215,076)		(13,215,076)
<b>Total comprehensive loss</b>							(12,884,008)
Exercise of stock options (1/08 - 12/08 @ \$0.10, \$2.73, \$2.90 & \$4.25)	133,137	13		120,520			120,533
Issuance of Restricted Stock	69,846	7		(7)			
Conversion of Class B public warrants at \$11.00 per share	98,800	10		1,086,790			1,086,800
Stock based compensation				1,881,399			1,881,399
Proceeds from private placement:							
Common stock (3/08 @ \$9.262 & 10/08 @ \$6.176)	4,763,698	476		36,647,217			36,647,693
Class B public warrants (3/08 @ \$3.954)				6,681,884			6,681,884
Exercise of representative s warrants (1/08 @ \$6.60 per unit)	75,000	8		494,992			495,000
Proceeds from shareholder under Section 16(b)				148,109			148,109
Proceeds from secondary public offering (5/08 @ \$14.00)	4,370,000	437		61,179,563			61,180,000
Costs of secondary public offering				(4,361,358)			(4,361,358)
<b>Balance, December 31, 2008</b>	20,946,382	\$ 2,095	\$	\$ 164,391,585	\$ (25,106,641)	\$ 331,068	\$ 139,618,107
<b>Components of comprehensive loss</b>							
Unrealized loss on investments						(334,080)	(334,080)
Net loss					(20,922,717)		(20,922,717)
<b>Total comprehensive loss</b>							(21,256,797)
Exercise of stock options (1/09 - 12/09 @ \$0.10, \$2.76 & \$4.25)	105,169	10		339,606			339,616
Issuance of Restricted Stock	147,679	15		(15)			
Stock based compensation				2,676,957			2,676,957
Proceeds from private placement:							
Common stock (10/09 @ \$6.50)	769,230	77		4,999,918			4,999,995
	4,615,385	461		29,999,542			30,000,003

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Proceeds from public offering (10/09 @ \$6.50)								
Costs of public offering				(2,062,866)				(2,062,866)
<b>Balance, December 31, 2009</b>	26,583,845	\$ 2,658	\$	\$ 200,344,727	\$ (46,029,358)	\$	(3,012)	\$ 154,315,015

**Components of comprehensive loss**

Unrealized gain on investments							2,786	2,786
Net loss							(31,233,718)	(31,233,718)

<b>Total comprehensive loss</b>								(31,230,932)
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Proceeds from public offering (11/10 @ \$4.15)	5,250,000	525		21,786,975				21,787,500
Costs of public offering				(1,409,937)				(1,409,937)
Exercise of stock options (1/10 12/10 @ \$0.10, \$2.90, \$2.73, \$2.76 & \$3.17)	161,330	16		390,985				391,001
Issuance of Restricted Stock	270,412	27		(27)				
Stock based compensation				2,713,468				2,713,468

<b>Balance, December 31, 2010</b>	32,265,587	\$ 3,226	\$	\$ 223,826,191	\$ (77,263,076)	\$	(226)	\$ 146,566,115
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**Components of comprehensive loss**

Unrealized gain on investments							1,623	1,623
Net loss							(94,823,522)	(94,823,522)

<b>Total comprehensive loss</b>								(94,821,899)
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Exercise of stock options (1/11 6/11 @ \$0.10)	56,000	6		5,594				5,600
Issuance of Restricted Stock	127,719	12		(12)				
Issuance of Commons Stock to service provider (5/11 @ \$1.31)	45,000	5		58,945				58,950
Stock based compensation				1,101,292				1,101,292

<b>Balance, June 30, 2011</b>	32,494,306	\$ 3,249	\$	\$ 224,992,010	\$ (172,086,598)	\$	1,397	\$ 52,910,058
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The accompanying notes are an integral part of these condensed financial statements.

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(A Development Stage Company)

**CONDENSED STATEMENTS OF CASH FLOWS**

(Unaudited)

	For the Six Months Ended		For the Period from
	2011	June 30, 2010	inception (October 18, 2005) through June 30, 2011
<b>Operating Activities:</b>			
Net loss	\$ (94,823,522)	\$ (14,296,179)	\$ (172,086,598)
Adjustments to reconcile net loss to cash used in operating activities:			
Depreciation and amortization	4,773,758	2,566,836	15,578,820
Stock based compensation	1,101,292	1,542,974	11,416,062
Common stock issued for services	58,950		58,950
Realized loss (gain) on forward contracts	(63,915)		1,430,766
Foreign currency transaction loss (gain)	(263,767)	438,627	(713,626)
Charge off of deferred financing costs to interest expense			198,565
Charge off of bridge loan discount to interest expense			800,000
Impairment loss	78,000,000		79,769,480
Forfeited down payments on equipment			74,766
Changes in operating assets and liabilities:			
Accounts receivable	(161,184)	(296,775)	(646,210)
Related party receivables	2,524		
Inventories	(1,505,117)		(3,381,951)
Prepaid expenses and other current assets	118,353	(263,568)	(391,995)
Accounts payable	(417,307)	(37,606)	675,142
Related party payable	(51,889)	(84,433)	2,148
Accrued expenses	848,761	(392,018)	2,659,612
Deferred revenue	(227,695)	157,981	23,010
Warranty reserve	5,803		21,703
Net cash used in operating activities	(12,604,955)	(10,664,161)	(64,511,356)
<b>Investing Activities:</b>			
Purchases of available-for-sale-securities	(21,202,034)	(34,711,326)	(899,466,468)
Maturities and sales of available-for-sale securities	23,798,740	47,664,319	884,576,540
Purchase of property, plant and equipment	(3,687,814)	(6,377,279)	(42,587,103)
Deposits on manufacturing equipment		(1,591,733)	(79,948,708)
Restricted cash for manufacturing equipment	(3,167,040)		(6,426,390)
Patent activity costs	(18,318)	(43,241)	(269,986)
Deposit on building			(100,000)
Net cash provided by (used in) investing activities	(4,276,466)	4,940,740	(144,222,115)
<b>Financing Activities:</b>			
Proceeds from bridge loan financing			1,600,000
Repayment of bridge loan financing			(1,600,000)
Payment of debt financing costs			(273,565)
Payment of equity offering costs			(10,302,040)
Proceeds from debt			7,700,000
Repayment of debt	(464,218)	(106,943)	(1,068,832)

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Repayment of debt-related party		(350,000)	(350,000)
Proceeds from shareholder under Section 16(b)			148,109
Proceeds from issuance of stock and warrants	5,600	55,012	222,891,105
Redemption of Class A warrants			(48,128)
Net cash provided by (used in) financing activities	(458,618)	(401,931)	218,696,649
<b>Net change in cash and cash equivalents</b>	<b>(17,340,039)</b>	<b>(6,125,352)</b>	<b>9,963,178</b>
<b>Cash and cash equivalents at beginning of period</b>	<b>27,303,217</b>	<b>21,717,215</b>	
<b>Cash and cash equivalents at end of period</b>	<b>\$ 9,963,178</b>	<b>\$ 15,591,863</b>	<b>\$ 9,963,178</b>
<b>Supplemental Cash Flow Information:</b>			
Cash paid for interest	\$	\$	\$ 424
Cash paid for income taxes	\$	\$	\$
<b>Non-Cash Transactions:</b>			
ITN initial contribution of assets for equity	\$	\$	\$ 31,200
Note with ITN and related capital expenditures	\$	\$ 1,100,000	\$ 1,100,000

The accompanying notes are an integral part of these condensed financial statements.

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**ASCENT SOLAR TECHNOLOGIES, INC.**

**(A Development Stage Company)**

**NOTES TO CONDENSED FINANCIAL STATEMENTS**

**(Unaudited)**

**NOTE 1. ORGANIZATION**

Ascent Solar Technologies, Inc. (Ascent or the Company) was incorporated on October 18, 2005 from the separation by ITN Energy Systems, Inc. (ITN) of its Advanced Photovoltaic Division and all of that division's key personnel and core technologies. ITN, a private company incorporated in 1994, is an incubator dedicated to the development of thin-film, photovoltaic (PV) battery, fuel cell and nano technologies. Through its work on research and development contracts for private and governmental entities, ITN developed proprietary processing and manufacturing know-how applicable to PV products generally, and to Copper-Indium-Gallium-diSelenide (CIGS) PV products in particular. ITN formed Ascent to commercialize its investment in CIGS PV technologies. In January 2006, in exchange for 1,028,000 shares of common stock of Ascent, ITN assigned to Ascent certain CIGS PV technologies and trade secrets and granted to Ascent a perpetual, exclusive, royalty-free worldwide license to use, in connection with the manufacture, development, marketing and commercialization of CIGS PV to produce solar power, certain of ITN's existing and future proprietary and control technologies that, although non-specific to CIGS PV, Ascent believes will be useful in its production of PV modules for its target markets. Upon receipt of the necessary government approvals and pursuant to novation in early 2007, ITN assigned government-funded research and development contracts to Ascent and also transferred the key personnel working on the contracts to Ascent. Today, ITN still provides Ascent a limited amount of technical services.

**NOTE 2. BASIS OF PRESENTATION**

The Company's activities to date have consisted substantially of raising capital, research and development, establishment of its initial production line (FAB1) and development of its expansion plant (FAB2). Revenues to date have been primarily generated from the Company's governmental research and development (R&D) contracts and have not been significant. The Company's planned principal operations to commercialize flexible PV modules have commenced, but have generated limited revenue to date. Accordingly, the Company is considered to be in the development stage and has presented its financial statements under the provisions of *ASC Topic 915 - Development Stage Entities* which requires additional disclosure of inception to date activity in the Condensed Statements of Operations, Condensed Statements of Stockholders' Equity and Comprehensive Income (Loss) and Condensed Statements of Cash Flows.

The accompanying unaudited condensed financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP) for interim financial information and in accordance with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, these interim financial statements do not include all of the information and footnotes typically found in U.S. GAAP audited annual financial statements. In the opinion of management, all adjustments (consisting only of normal recurring adjustments) considered necessary for a fair statement have been included. The Condensed Balance Sheet at December 31, 2010 has been derived from the audited financial statements as of that date but does not include all of the information and footnotes included in the Company's Annual Report on Form 10-K for the year ended December 31, 2010. These condensed financial statements and notes should be read in conjunction with the financial statements and notes thereto included in the Company's Annual Report on Form 10-K for the year ended December 31, 2010.

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Operating results for the six months ended June 30, 2011 are not necessarily indicative of the results that may be expected for the year ending December 31, 2011.

**NOTE 3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

The Company's significant accounting policies were described in Note 3 to the audited financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2010. With the exception of those discussed below, there have been no significant changes to these policies and no recent accounting pronouncements or changes in accounting pronouncements during the six months ended June 30, 2011, that are of significance or potential significance to the Company.

**Recent Accounting Pronouncements:** In May 2011, the FASB issued ASU 2011-04, *Fair Value Measurement (Topic 820)*. This ASU provides a consistent definition of fair value and sets forth common requirements for measurement of and disclosure about fair value in accordance with

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U.S. generally accepted accounting principles ( GAAP ) and International Financial Reporting Standards ( IFRS ). ASU 2011-04 amends existing fair value measurement and disclosure requirements including application of highest and best use and valuation premise concepts, measuring the fair value of an instrument classified in a reporting entity s

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shareholders' equity, measuring the fair value of financial instruments that are valued within a portfolio and disclosures in measurement categorized within Level 3 of the fair value hierarchy. This ASU is effective on a prospective basis during interim and annual periods beginning after December 15, 2011 and early application is not permitted. The Company does not expect the adoption of ASU 2011-04 will have a material impact on the Company's financial position, results of operations or cash flows.

In June 2011, the FASB issued ASU 2011-05, *Comprehensive Income (Topic 820)*. This ASU seeks to improve comparability, consistency and transparency of financial reporting with respect to comprehensive income by eliminating the option to present components of other comprehensive income as part of the statement of changes in stockholders' equity, among other amendments. The amendments of this ASU require all non-owner changes in stockholders' equity be presented either in a single continuous statement of comprehensive income or two separate but consecutive statements. This ASU is effective for fiscal years and interim periods beginning after December 15, 2011 and early adoption is permitted. The adoption of ASU 2011-05 will effect only financial statement presentation and will not impact the Company's financial position, results of operations or cash flows.

### **NOTE 4. LIQUIDITY AND CONTINUED OPERATIONS**

As of June 30, 2011, the Company had approximately \$24.9 million in cash and investments. An additional \$6.4 million in cash is restricted for future payments on equipment. As discussed in Note 2, the Company is in the development stage and is currently incurring significant losses from operations as it works toward commercialization. The Company made cash payments of approximately \$3.7 million in the six months ended June 30, 2011 for property, plant and equipment. The Company has remaining obligations for equipment purchases in the approximate amount of \$12.3 million, of which approximately \$4.7 million is recorded in Accrued property, plant and equipment.

On March 31, 2011, the Company announced a change in strategy that will focus the Company's solar module technology on applications for emerging and specialty markets. The change in strategy resulted in a change in leadership and sizing the company to a new cost structure, primarily through the termination of a portion of the Company's workforce. The Company incurred a charge of approximately \$450,000 in the quarter ended March 31, 2011, comprised of severance costs. This charge has been recorded under Accrued expenses in the Condensed Balance Sheets and expensed as Research and development and Selling, general and administrative in the Condensed Statement of Operations in the amounts of approximately \$72,000 and \$378,000, respectively. The Company made payments of approximately \$123,000 during the six months ended June 30, 2011. The Company expects to make payments of approximately \$100,000 during the quarter ended September 30, 2011, and the remaining estimated amount of \$227,000 over the following seven months.

Due to recent significant adverse changes in market conditions, particularly the decreases in current and expected average selling prices for PV modules the Company has concluded that the carrying value of Property, Plant and Equipment and Deposits on manufacturing equipment may not be recoverable and a non-cash impairment charge in the amount of approximately \$78.0 million has been taken in the quarter ended June 30, 2011. See Note 10. Impairment.

The Company commenced limited production on the FAB1 production line in the first quarter of 2009 and the FAB2 production line in 2010. The Company does not expect that sales revenue and cash flows from the FAB1 and FAB2 production lines will be sufficient to support operations and cash requirements until actual full production capacity on the FAB2 production line is achieved. Changes in the level of expected operating losses, the timing of planned capital expenditures or other factors may negatively impact cash flows and reduce current cash and investments faster than anticipated. The Company may need to raise additional capital in the future. There is no assurance that the Company will be able to raise additional capital on acceptable terms or at all.

### **NOTE 5. RESTRICTED CASH**

The Company established irrevocable letters of credit with its bank in favor of equipment vendors in the approximate amounts of \$3.2 million and \$3.2 million in October 2010 and February 2011, respectively. The letters of credit are collateralized by interest bearing accounts and the funds are expected to be released for payment during 2011 and the first quarter of 2012. Both amounts are reflected as Restricted cash under Other Assets in the Condensed Balance Sheets.

### **NOTE 6. FAIR VALUE MEASUREMENTS**

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The Company uses fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the last unobservable, to measure fair value:

Level 1 Quoted prices in active markets for identical assets or liabilities.



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Level 2 Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The following table represents the Company's fair value hierarchy for its financial assets measured at fair value on a recurring basis and its classification on the balance sheet as of June 30, 2011:

	Level 1	Level 2	Level 3	Total	Cash Equivalents	Investments
<b>Financial Assets:</b>						
U.S. government securities	\$	\$ 9,694,240	\$	\$ 9,694,240	\$ 799,093	\$ 8,895,147
Municipal bonds		2,396,462		2,396,462		2,396,462
Money market funds	1,114,099			1,114,099	1,114,099	
Corporate securities		5,199,664		5,199,664	1,599,947	3,599,717
	\$ 1,114,099	\$ 17,290,366	\$	\$ 18,404,465	\$ 3,513,139	\$ 14,891,326

As of the balance sheet date, the Company held securities issued by U.S. government agencies (AAA/Aaa ratings), municipalities (AA/Aa2 ratings) and A-1/A-1+ rated corporate notes. Approximately \$17.3 million of these securities are classified as Level 2 because the Company does not believe that it is possible to obtain a firm, up-to-date price of such securities from, for example, a major exchange; and as a result, the Company relies on its brokerage firm and investment manager to report its fair value of such securities at the end of each month. Investments have not been transferred between levels.

In addition to the items measured at fair value on a recurring basis, the Company also measured certain assets at fair value on a nonrecurring basis. As a result of an impairment analysis, the Company recorded an impairment loss of \$78.0 million to write down its long-lived assets to fair value at June 30, 2011 (See Note 10. Impairment for additional information). The Company has determined that these fair value measurements rely primarily on Company-specific inputs and the Company's assumptions about the use of the assets, as observable inputs are not available. Accordingly, the Company determined that these fair value measurements reside primarily within Level 3 of the fair value hierarchy.

**NOTE 7. INVESTMENTS**

Securities held by the Company as of June 30, 2011 are classified as available-for-sale and consisted of U.S. government securities, municipal bonds and corporate securities. Such investments are carried at fair value, based on quoted market prices with the unrealized holding gains and losses reported as Accumulated other comprehensive income (loss) in the stockholders' equity section of the Condensed Balance Sheets. Realized gains and losses on sales of securities are computed using the specific identification method. The Company evaluates declines in market value for potential impairment. If the decline results in a value below cost and is determined to be other than temporary, the investment is written down to its impaired value and a new cost basis is established. A summary of available-for-sale securities as of June 30, 2011 is as follows:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
U.S. government securities	\$ 8,891,965	\$ 4,518	\$ (1,336)	\$ 8,895,147
Municipal bonds	2,397,079	154	(771)	2,396,462
Corporate securities	3,600,006	24	(313)	3,599,717
Total	\$ 14,889,050	\$ 4,696	\$ (2,420)	\$ 14,891,326

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Contractual maturities of available-for-sale investments as of June 30, 2011 were all one year or less as follows:

	<b>Amortized Cost</b>	<b>Gross Unrealized Gains</b>	<b>Gross Unrealized Losses</b>	<b>Estimated Fair Value</b>
One year or less	\$ 14,889,050	\$ 4,696	\$ (2,420)	\$ 14,891,326

The Company typically invests in highly rated securities with low probabilities of default. The Company's investment policy specifies minimum investment grade criteria, types of acceptable investments, concentration limitations and duration guidelines.

All securities having an unrealized loss as of June 30, 2011 have been in a loss position for less than twelve months.

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Accounts receivable consist of amounts generated from government contracts and sales of PV modules. Accounts receivable totaled \$646,210 and \$485,026 as of June 30, 2011 and December 31, 2010, respectively. All accounts receivable as of June 30, 2011 are deemed collectible.

*Provisional Indirect Cost Rates* During 2010 and 2011, the Company billed the government under cost-based R&D contracts at provisional billing rates which permit the recovery of indirect costs. These rates are subject to audit on an annual basis by the government agencies cognizant audit agency. The cost audit will result in the negotiation and determination of the final indirect cost rates. In the opinion of management, re-determination of any cost-based contracts will not have a material effect on the Company's financial position or results of operations.

*Contract Status* The Company has authorized but not completed contracts on which work is in process as follows as of June 30, 2011 and December 31, 2010:

	As of June 30, 2011	As of December 31, 2010
Total contract price of initial contract awards, including exercised options and approved change orders (modifications)	\$ 11,427,581	\$ 11,426,858
Completed to date	(9,097,424)	(7,289,426)
Authorized backlog	\$ 2,330,157	\$ 4,137,432

**NOTE 9. PROPERTY, PLANT AND EQUIPMENT**

The following table summarizes property, plant and equipment as of June 30, 2011 and December 31, 2010:

	As of June 30, 2011	As of December 31, 2010
Building	\$ 5,755,445	\$ 19,506,814
Furniture, fixtures, computer hardware and computer software	339,820	1,151,745
Manufacturing machinery and equipment	19,815,596	72,111,366
Leasehold improvements	884,709	884,709
Net depreciable property, plant and equipment	26,795,570	93,654,634
Manufacturing machinery and equipment in progress	9,292,765	17,054,686
Property, plant and equipment	36,088,335	110,709,320
Less: Accumulated depreciation and amortization	(5,205,373)	(10,706,478)
Net property, plant and equipment	\$ 30,882,962	\$ 100,002,842

During the quarter ended June 30, 2011, an impairment charge in the amount of approximately \$74.5 million was taken against Property, Plant and Equipment. This impairment, combined with a charge of approximately \$3.5 million taken against Deposits on manufacturing equipment, resulted in a total write-down of \$78.0 million in the quarter ended June 30, 2011. See Note 10. Impairment and Note 12. Deposits on Manufacturing Equipment. As of June 30, 2011, approximately \$9.3 million of equipment for the FAB2 production line is reflected above as

Manufacturing machinery and equipment in progress while the Company continues to qualify the equipment. Depreciation and amortization expense for the three months ended June 30, 2011 and 2010 was \$2,442,334 and \$1,568,839, respectively, and for the six months ended June 30, 2011 and 2010 was \$4,767,648 and \$2,562,403, respectively. Depreciation and amortization expense is recorded under Research and development expense and Selling, general and administrative expense in the Condensed Statements of Operations.

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The Company incurred and capitalized interest costs related to the FAB2 building loan as follows during the six months ended June 30, 2011 and the year ended December 31, 2010.

	<b>As of June 30, 2011</b>	<b>As of December 31, 2010</b>
Interest cost incurred	\$ 116,761	\$ 479,898
Interest cost capitalized	(116,761)	(479,898)
Interest expense, net	\$	\$

**Table of Contents****NOTE 10. IMPAIRMENT**

The Company analyzes its long-lived assets for impairment, both individually and as a group, whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. Due to recent significant adverse changes in market conditions, particularly the decreases in current and expected average selling prices for PV modules, the Company has concluded that the carrying value of Property, Plant and Equipment may not be recoverable. This analysis utilized projected selling prices and operating costs under alternative scenarios to arrive at total estimated undiscounted cash flows. As a result of this analysis, the Company recorded an impairment loss of \$78.0 million in the carrying value of Property, Plant and Equipment and Deposits on manufacturing equipment in the quarter ended June 30, 2011. The impairment loss was measured as the amount by which the carrying amount of the underlying assets exceeded fair value, as calculated using the expected present value technique. Actual cash flows may differ from the forecasts used in the analysis. This analysis incorporated many different assumptions and estimates which involve a high degree of judgment. These assumptions and estimates, which may change significantly in the future, have a substantial impact on the actual impairment loss recorded.

**NOTE 11. INVENTORIES**

Inventories consisted of the following at June 30, 2011 and December 31, 2010:

	As of June 30, 2011	As of December 31, 2010
Raw materials	\$ 3,016,192	\$ 1,468,425
Work in process	128,776	317,468
Finished goods	236,983	90,941
Total	\$ 3,381,951	\$ 1,876,834

**NOTE 12. DEPOSITS ON MANUFACTURING EQUIPMENT**

As of June 30, 2011, deposits on manufacturing equipment related to the purchase of equipment not yet delivered to the FAB2 production line were approximately \$2.2 million, which is net of the \$3.5 million impairment discussed below. The equipment purchase agreements are conditional purchase obligations that have milestone-based deliverables, such as the Company's acceptance of design requirements and successful installation and commissioning of the equipment. During the quarter ended June 30, 2011, an impairment charge in the amount of approximately \$3.5 million was taken against deposits on manufacturing equipment. This impairment charge was recorded under Impairment loss in the Condensed Statements of Operations. See Note 10. Impairment.

**NOTE 13. DEBT**

On February 8, 2008, the Company acquired an approximately 120,000 square foot manufacturing and office facility in Thornton, Colorado, for approximately \$5.5 million. The purchase was financed by a promissory note, deed of trust and construction loan agreement (the "Construction Loan") with the Colorado Housing and Finance Authority ("CHFA"), which provided the Company borrowing availability of up to \$7.5 million for the building and building improvements. The Company paid approximately \$1.3 million in cash and was advanced approximately \$4.2 million from CHFA to fund the initial acquisition of the property. The Construction Loan terms required payments of interest at 6.6% on the outstanding balance. On January 29, 2009, the Construction Loan was converted to a permanent loan pursuant to a Loan Modification Agreement between the Company and CHFA (the "Permanent Loan"). The Permanent Loan has an interest rate of 6.6% and the principal will be amortized over a period of approximately 19 years and one month consistent with a maturity date of 20 years after the incurrence of the promissory note and Construction Loan. A loan commitment fee of \$75,000 was paid in 2008 and is reflected on the balance sheet in non-current assets. This fee is being amortized into interest expense over the 20 year life of the Loan. The Company will incur a prepayment penalty if the Permanent Loan is prepaid prior to December 31, 2015 equal to the sum of (i) the present value of the total principal and interest payments due under the Note from the prepayment date to December 31, 2015, and (ii) the present value of the remaining principal balance of the Note that would have been due as of December 31, 2015, less the principal amount of the Note outstanding. Further, pursuant to certain negative covenants contained in the deed of trust associated with the Permanent Loan, until the Permanent Loan is repaid and all of the Company's secured obligations are performed in full, the Company may not, among other things, without CHFA's prior written consent (which by the terms of the deed of trust is subject to a reasonableness requirement): create or incur additional indebtedness (other than obligations created or incurred in the ordinary course of business); merge or consolidate with any other entity; or make loans or advances to the Company's officers, shareholders, directors or employees.

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On January 7, 2010, the Company and ITN entered into an equipment purchase agreement whereby the Company purchased seven research and development vacuum and deposition chambers for \$1,100,000 from ITN. Payments in the amount of \$350,000 were remitted to ITN in January 2010 and January 2011. A final payment, without interest, in the amount of \$400,000 is due on January 15, 2012.

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As of June 30, 2011, future principal payments on long-term debt are due as follows:

2011	\$ 118,039
2012	648,059
2013	264,935
2014	282,960
2015	302,210
Thereafter	5,764,965
	<b>\$ 7,381,168</b>

**NOTE 14. DERIVATIVE FINANCIAL INSTRUMENTS**

The Company is actively engaged in purchasing manufacturing equipment internationally and is exposed to foreign currency risk. In July 2008 and March 2009, the Company entered into fair value hedges utilizing forward contracts designed to match scheduled contractual payments to equipment suppliers which are denominated in Euros and Yen. The total notional value of the Euro forward contracts was approximately

6.4 million with various contract settlement dates beginning September 15, 2008 through July 31, 2009. The total notional value of the Yen forward contracts was approximately ¥521.4 million with contract settlement dates of March and April 2009. The Company elected not to use hedge accounting and accordingly, the unrealized gain and loss on each forward contract was determined at each balance sheet date based upon current market rates and is reported as an Unrealized gain or loss on forward contracts in the Condensed Statements of Operations. Upon settlement of the forward contracts, a realized gain or loss is reported in the Condensed Statements of Operations as Realized gain (loss) on forward contracts.

Although the hedging activity is designed to fix the dollar amount to be expended, the asset purchased is recorded at the spot rate in effect as of the date of the payment to the supplier. The difference between the spot rate and the forward rate has been reported as Realized gain (loss) on forward contracts. From time to time the Company holds foreign currency options to hedge against equipment payments to be remitted in foreign currencies. Derivative financial instruments are not used for speculative or trading purposes.

At June 30, 2011, approximately \$3.2 million included in Restricted cash was held in Euros and approximately \$2.7 million included in Cash and cash equivalents was held in Yen. Accounts denominated in Euros and Yen are held in the Company's bank account for future payments to equipment suppliers. Period end foreign currency transaction adjustments related to the Euros and Yen on deposit in the Company's bank account are reflected as Foreign currency transaction gain (loss) in the Condensed Statements of Operations.

**NOTE 15. STOCKHOLDERS' EQUITY**

The Company's authorized capital stock consists of 75,000,000 shares of common stock, \$0.0001 par value, and 25,000,000 shares of preferred stock, \$0.0001 par value. Each share of common stock has the right to one vote.

Preferred stock, \$0.0001 par value per share, may be issued in classes or series. Designations, powers, preferences, rights, qualifications, limitations and restrictions are determined by the Company's Board of Directors.

**Initial Public Offering:** The Company completed its initial public offering (IPO) of 3,000,000 units on July 14, 2006. Each unit consisted of one share of common stock, one redeemable Class A warrant and two non-redeemable Class B warrants. The IPO price was \$5.50 per unit. The gross proceeds of the offering were \$16,500,000. Ascent's net proceeds from the offering, after deducting the underwriter's discount of \$1,097,250 and other fees and expenses, aggregated approximately \$14,000,000.

The common stock and Class A and Class B warrants traded only as a unit through August 9, 2006, after which the common stock, the Class A warrants and the Class B warrants began trading separately.

*Class A warrants.* On May 24, 2007, the Company publicly announced that it intended to redeem its outstanding Class A warrants. The Class A warrants became eligible for redemption by the Company at \$0.25 per warrant on April 16, 2007, when the last reported sale price of the Company's common stock had equaled or exceeded \$9.35 for five consecutive trading days. There were 3,290,894 Class A warrants issued in connection with the Company's IPO, including the warrants issued to the Bridge Noteholders. The Class A warrants were exercisable at a price

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of \$6.60 per share.

The exercise period ended June 22, 2007. During the exercise period, 3,098,382 Class A warrants (94.1% of the total outstanding) were exercised for an equal number of shares of common stock, and the Company received \$20,449,321 in proceeds from the warrant exercises. At the end of the exercise period, 192,512 Class A warrants remained outstanding. The Company has set aside funds with its warrant transfer agent to redeem the outstanding warrants for \$0.25 per warrant, or a total cost of \$48,128. As of June 30, 2011, 9,090 Class A warrants remained unredeemed.



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*Class B warrants.* The Class B warrants included in the units became exercisable on August 10, 2006. The exercise price of a Class B public warrant is \$11.00. The Class B warrants expired on July 10, 2011. The Company does not have the right to redeem the Class B warrants. During the years ended December 31, 2008 and 2007, 98,800 and 11,000 Class B warrants, respectively were exercised resulting in proceeds to the Company of approximately \$1.09 million and \$121,000 respectively. As of June 30, 2011, 10,502,583 Class B warrants were outstanding.

*IPO warrants.* Warrants to purchase 300,000 units at \$6.60 were issued to underwriters of the Company's IPO in July 2006 (representative's warrants). A unit consists of one share of common stock, one Class A redeemable warrant and two Class B non-redeemable warrants. The warrants expired on July 10, 2011. Upon exercise of the representative's warrants, holders will be forced to choose whether to exercise the underlying Class A warrants or hold them for redemption. As noted above, on June 25, 2007, any Class A warrants then outstanding expired and became redeemable.

Representative's warrants to purchase 150,000 units have been exercised as of December 31, 2007, as have the 150,000 underlying Class A warrants resulting in an issuance of 300,000 shares of common stock and 300,000 Class B warrants for total proceeds to the Company of \$1.98 million. During the year ended December 31, 2008 an additional 37,500 units were exercised, as have the 37,500 underlying Class A warrants resulting in an issuance of 75,000 shares of common stock and 75,000 Class B warrants for total proceeds to the Company of \$495,000. To the extent that holders of representative's warrants are entitled to receive Class A warrants upon exercise of the representative's warrants, those warrants will be immediately subject to call for redemption at \$0.25 per warrant. The holders will then have to decide whether to exercise their Class A warrants or hold them for redemption. As of June 30, 2011, 112,500 representative's warrants remained unexercised.

**Private Placement of Securities:** The Company completed a private placement of securities with Norsk Hydro Produksjon AS (Hydro) in March 2007. Hydro is a subsidiary of Norsk Hydro ASA. Hydro purchased 1,600,000 shares of the Company's common stock (representing 23% of the Company's then outstanding common stock post transaction) for an aggregate purchase price of \$9,236,000. The Company recorded \$75,807 of costs associated with the private placement as a reduction to Additional paid in capital on the Company's Balance Sheets. In connection with the private placement, Hydro was granted options to purchase additional shares and warrants.

In August 2007, Hydro acquired an additional 934,462 shares of the Company's common stock and 1,965,690 Class B warrants through the exercise of an option previously granted to Hydro and approved by Ascent's stockholders in June 2007. Gross proceeds to the Company were \$10.48 million, and reflected per share and per warrant purchase prices equal to the average of the closing bids of each security, as reported by NASDAQ, for the five consecutive trading days preceding exercise. After acquiring these additional shares, Hydro again held 23% of the then outstanding common shares, after its holdings were diluted as the result of the redemption of Class A warrants and 23% of total outstanding Class B warrants. Pursuant to a second option that was approved by Ascent's stockholders in June 2007, beginning December 13, 2007, Hydro was entitled to purchase additional shares and Class B warrants up to a maximum of 35% of each class of security.

In March 2008, Hydro acquired an additional 2,341,897 shares of the Company's common stock and 1,689,905 Class B warrants through the exercise of the second option previously granted to Hydro and approved by Ascent's stockholders in June 2007, resulting in Hydro ownership of approximately 35% of each class of security. Gross proceeds to the Company were \$28.4 million, and reflected per share and per warrant purchase prices were equal to the average of the closing bids of each security, as reported by NASDAQ, for the five consecutive trading days preceding exercise. As a result of the Company's Secondary Public Offering in May 2008, Hydro's holdings were diluted to approximately 27% of the then outstanding common stock.

On October 8, 2008, Hydro acquired an additional 2,421,801 shares of the Company's common stock. The purchase resulted in a return to Hydro's ownership of approximately 35% of the Company's then outstanding common stock. Gross proceeds to the Company from the follow on investment were approximately \$15 million, and reflect per share purchase prices equal to the average of the closing bids of each security, as reported by NASDAQ, for the five consecutive trading days preceding the purchase. Until June 15, 2009, the second option entitles Hydro to purchase from the Company additional restricted shares of common stock and Class B warrants to maintain ownership of up to 35% of issued and outstanding common stock and Class B warrants.

On September 29, 2009, the Company entered into a securities purchase agreement with Hydro under which the Company agreed to sell, and Hydro agreed to purchase, 769,230 restricted shares of the Company's common stock for approximately \$5.0 million in a private placement exempt from registration under the Securities Act. The restricted shares were sold to Hydro at a per share price equal to \$6.50. The private placement closed on October 6, 2009, at which time the Company and Hydro executed a Registration Rights Agreement, pursuant to which Hydro was granted demand and piggy-back registration rights.

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**Secondary Public Offerings:** On May 15, 2008, the SEC declared effective the Company's Registration Statement on Form S-3 (Reg. No. 333-149740), and the Company completed a secondary public offering of 4,370,000 shares of common stock, which included 570,000 shares issued upon the underwriter's exercise of their overallotment in full. The offering price of \$14.00 per share resulted in proceeds of \$61.2 million. After deducting underwriting discounts and commissions and offering expenses of approximately \$4.4 million, net proceeds to the Company were approximately \$56.8 million.

On October 1, 2009, the Company entered into an underwriting agreement with Barclays Capital Inc. providing for the sale in a firm commitment offering of 4,615,385 shares of the Company's common stock at a price to the public of \$6.50 per share. The offer and sale of the shares were registered under the Securities Act of 1933, as amended, pursuant to the Company's Registration Statement on Form S-3 (File No. 333-156665), which became effective with the SEC on January 16, 2009. The offering closed on October 6, 2009 with net proceeds to the Company of approximately \$27.9 million.

On November 11, 2010, the Company entered into an underwriting agreement with Cowen and Company, LLC, Rodman & Renshaw LLC and ThinkEquity LLC providing for the sale in a firm commitment offering of 5,250,000 shares of the Company's common stock at a price to the public of \$4.15 per share. The offer and sale of the shares were registered under the Securities Act of 1933, as amended, pursuant to the Company's Registration Statement on Form S-3 (File No. 333-156665), which became effective with the SEC on January 16, 2009. The offering closed on November 16, 2010 with net proceeds to the Company of approximately \$20.4 million.

On February 28, 2011, the Company entered into an At-The-Market Equity Offering Sales Agreement with Stifel, Nicolaus & Company, Incorporated, or Stifel Nicolaus Weisel, under which the Company may issue and sell from time to time up to \$25,000,000 of common stock. The Company filed a prospectus supplement to the prospectus dated January 16, 2009. Sales of common stock, if any, will be made at market prices by any method that is deemed to be an at the market offering as defined in Rule 415 under the Securities Act, including sales made directly on the NASDAQ Global Market and any other trading market for the Company's common stock, and sales to or through a market maker other than on an exchange. The aggregate compensation payable to Stifel Nicolaus Weisel as sales agent shall be equal to 3% of the gross sales price of the shares sold. The offering of common stock pursuant to the sales agreement will terminate upon the earlier of (1) the sale of all the shares of our common stock offered by this prospectus supplement and the accompanying prospectus or (2) the termination of the sales agreement by the Company or by Stifel Nicolaus Weisel. As of June 30, 2011, no shares had been sold under this facility.

**Other Proceeds:** During the three months ended March 31, 2008, the Company received proceeds from a greater than 10% stockholder equal to the profits realized by such stockholder on the sale of the Company's stock that was purchased and sold by such stockholder within six months of such sale. Under Section 16(b) of the Securities Exchange Act of 1934, as amended, the profit realized from this transaction by the greater than 10% stockholder was required to be disgorged to the Company. The Company recorded the proceeds received on this transaction of \$148,109 as Additional paid in capital and is reflected on the Statements of Stockholders' Equity.

In May 2011 the Company issued 45,000 shares of common stock to an outside service provider as part of a consulting agreement.

As of June 30, 2011, the Company had 32,494,306 shares of common stock and no shares of preferred stock outstanding. The Company has not declared or paid any dividends through June 30, 2011.

## **NOTE 16. EQUITY PLANS AND SHARE-BASED COMPENSATION**

**Stock Option Plan:** The Company's 2005 Stock Option Plan, as amended (the "Stock Option Plan") provides for the grant of incentive or non-statutory stock options to the Company's employees, directors and consultants. Upon recommendation of the Board of Directors, the stockholders approved increases in the total shares of common stock reserved for issuance under the Stock Option Plan at various times from 1,000,000 to 3,700,000 currently.

**Restricted Stock Plan:** The Company's 2008 Restricted Stock Plan, as amended (the "Restricted Stock Plan") was adopted by the Board of Directors and was approved by the stockholders on July 1, 2008. The Restricted Stock Plan initially reserved up to 750,000 shares of the Company's common stock for restricted stock awards and restricted stock units to eligible employees, directors and consultants of the Company. Upon recommendation of the Board of Directors, the stockholders approved an increase in the total shares of common stock reserved for issuance under the Restricted Stock Plan from 750,000 to 1,550,000 shares.

The Stock Option Plan and the Restricted Stock Plan are administered by the Compensation Committee of the Board of Directors, which determines the terms of the option and share awards, including the exercise price, expiration date, vesting schedule and number of shares. The term of any incentive stock option granted under the Stock Option Plan may not exceed ten years, or five years for options granted to an optionee owning more than 10% of the Company's voting stock. The exercise price of an incentive stock option granted under the Option Plan

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must be equal to or greater than the fair market value of the shares of the Company's common stock on the date the option is granted. An incentive stock option granted to an optionee owning more than 10% of the Company's voting stock must have an exercise price equal to or greater than 110% of the fair market value of the Company's common stock on the date the option is granted. The exercise price of a non-statutory option granted under the Option Plan must be equal to or greater than 85% of the fair market value of the shares of the Company's common stock on the date the option is granted.

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**Grants Outside Existing Equity Plans:** Prior to the adoption of the Restricted Stock Plan, the Board of Directors granted 40,000 restricted stock awards in connection with an executive employment agreement. In July 2009, the Board of Directors granted an inducement award (as defined in NASDAQ Rule 5635(c) (4)) made outside of the existing Stock Option Plan for 200,000 stock options.

**Share Based Compensation:** The Company measures share-based compensation cost at the grant date based on the fair value of the award and recognizes this cost as an expense over the grant recipients' requisite service periods for all awards made to employees, officers, directors and consultants.

The share-based compensation expense recognized in the Condensed Statements of Operations for the three and six months ended June 30, 2011 and 2010 was as follows:

	For the three months ended June 30,		For the six months ended June 30,	
	2011	2010	2011	2010
<b>Share-based compensation cost included in:</b>				
Research and development	\$ 40,951	\$ 127,536	\$ 227,042	\$ 225,441
Selling, general and administrative	248,367	499,853	874,250	1,317,533
Total share-based compensation cost	\$ 289,318	\$ 627,389	\$ 1,101,292	\$ 1,542,974

The following table presents share-based compensation expense by type of award for the three and six months ended June 30, 2011 and 2010:

	For the three months ended June 30,		For the six months ended June 30,	
	2011	2010	2011	2010
<b>Type of Award:</b>				
Stock Options	\$ 92,169	\$ 321,959	\$ 629,962	\$ 593,335
Restricted Stock Units and Awards	197,149	305,430	471,330	949,639
Total share-based compensation cost	\$ 289,318	\$ 627,389	\$ 1,101,292	\$ 1,542,974

**Stock Options:** The Company recognized share-based compensation expense for stock options of approximately \$630,000 (approximately \$592,000 to officers, directors and employees, and approximately \$38,000 to outside providers) for the six months ended June 30, 2011 related to stock option awards ultimately expected to vest and reduced for estimated forfeitures. Included in this amount is approximately \$236,000 in additional expense due to accelerated vesting, resulting from the severance agreement with the Company's former CEO, Dr. Farhad Moghadam. The weighted average estimated fair value of employee stock options granted for the six months ended June 30, 2011 and 2010 was \$2.55 and \$2.65 per share, respectively. Fair value was calculated using the Black-Scholes Model with the following assumptions:

	For the six months ended June 30,	
	2011	2010
Expected volatility	97.8%	100.2%
Risk free interest rate	2.6%	2.0%
Expected dividends		
Expected life (in years)	6.3	5.9

Expected volatility is based on the historical volatility of the Company's stock. The risk-free rate of return is based on the yield of U.S. Treasury bonds with a maturity equal to the expected term of the award. Historical data is used to estimate forfeitures within the Company's valuation model. The Company's expected life of stock option awards is derived from historical experience and represents the period of time that awards are expected to be outstanding.

As of June 30, 2011, total compensation cost related to non-vested stock options not yet recognized was approximately \$1,420,000 which is expected to be recognized over a weighted average period of approximately 2.68 years. As of June 30, 2011, approximately 1,197,000 shares were vested or expected to vest in the future at a weighted average exercise price of \$4.39. As of June 30, 2011, approximately 1,695,000 shares

remained available for future grants under the Option Plan.

**Restricted Stock:** In addition to the stock options discussed above, the Company recognized share-based compensation expense related to restricted stock grants of approximately \$471,000 for the six months ended June 30, 2011. Included in this amount is approximately \$40,000 in additional expense due to the accelerated vesting, resulting from the severance agreement with the Company's former CEO, Dr. Farhad Moghadam. The weighted average estimated fair value of restricted stock grants for the six months ended June 30, 2011 and 2010 was \$3.19 and \$4.82, respectively.

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Total unrecognized share-based compensation expense from unvested restricted stock as of June 30, 2011 was approximately \$855,000 which is expected to be recognized over a weighted average period of approximately 2.11 years. As of June 30, 2011, approximately 354,000 shares were expected to vest in the future. As of June 30, 2011, approximately 608,000 shares remained available for future grants under the Restricted Stock Plan.

**NOTE 17. RELATED PARTY TRANSACTIONS**

Prior to January 1, 2011, ITN was considered a related party because ITN's sole owner, Dr. Mohan Misra, was Chairman of the Company's Board of Directors and held various executive positions. Effective January 1, 2011, Dr. Misra was no longer a member of the Board of Directors or an executive of the Company and ITN is no longer considered a related party.

ITN was a related party during the three and six months ended June 30, 2010. Included in Selling, general and administrative expenses for the three and six months ended June 30, 2010 were \$170,207 and \$346,189 respectively, of expenditures to ITN for facility sublease costs and administrative support expenses. Included in Research and development expense for the three and six months ended June 30, 2010 were \$156,641 and \$316,696, respectively, of expenditures to ITN for supporting research and development and manufacturing activity, including charges for the use of research and development equipment. Related party payables of \$54,037 as of December 31, 2010 represented costs remaining to be paid to ITN for these expenditures.

Property, plant and equipment as of December 31, 2010 includes \$2,296,118 paid to ITN for the construction of manufacturing and research and development equipment and installation labor costs for the Company's FAB1 and FAB2 production lines.

On January 7, 2010, the Company and ITN entered into an equipment purchase agreement whereby the Company purchased seven research and development vacuum and deposition chambers for \$1,100,000 from ITN. Payments in the amount of \$350,000 were remitted to ITN in January 2010 and January 2011. A final payment, without interest, in the amount of \$400,000 is due on January 15, 2012.

**NOTE 18. COMMITMENTS**

**Lease Agreement:** On June 25, 2010, the Company entered into a lease agreement for the FAB1 facility in Littleton, Colorado; the lease was extended March 1, 2011. As of June 30, 2011, future minimum payments totaling \$247,095 are due through June 2012.

The Company is also responsible for payment of pass-through expenses such as property taxes, insurance, water and utilities. Rent expense for the three months ended June 30, 2011 and 2010 was \$72,675 and \$75,117 respectively, and for the six months ended June 30, 2011 and 2010 was \$145,342 and \$150,518, respectively.

**NOTE 19. RETIREMENT PLAN**

On July 1, 2006, the Company adopted a qualified 401(k) plan which provides retirement benefits for all of its eligible employees. Under the plan, employees become eligible to participate at the first entry date, provided that they are at least 21 years of age. The participants may elect through salary reduction to contribute up to ceilings established in the Internal Revenue Code. The Company will match 100% of the first six percent of employee contributions. In addition, the Company may make discretionary contributions to the Plan as determined by the Board of Directors. Employees are immediately vested in all salary reduction contributions. Rights to benefits provided by the Company's discretionary and matching contributions vest 100% after the first year of service for all employees hired before January 1, 2010. For employees hired after December 31, 2009, matching contributions vest over a three-year period, one-third per year. Payments for 401(k) matching totaled \$31,710 and \$82,305 for the three months ended June 30, 2011 and 2010, respectively, and \$141,939 and \$180,175 for the six months ended June 30, 2011 and 2010, respectively. Payments for 401(k) matching are recorded under Research and development expense and Selling, general and administrative expense in the Condensed Statements of Operations.

**NOTE 20. SUBSEQUENT EVENT**

On August 12, 2011 the Company entered into a strategic alliance with TFG Radiant Investment Group Ltd. and its affiliates ( TFG Radiant ).

TFG Radiant has made an initial \$7.36 million equity investment in the Company, and, in connection with such investment, has received an option to acquire an additional 9,500,000 shares of the Company's common stock at an exercise price of \$1.55 per share. The option is only exercisable after approval of the option by the Company's stockholders and achievement of certain milestones associated with the construction of the first East Asia fab described below.



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In addition, in exchange for the grant by the Company of exclusive rights to manufacture and sell solar devices based on the Company's proprietary CIGS PV technology in East Asia (comprised of China, Taiwan, Hong Kong, Thailand, Malaysia, Indonesia, Korea and Singapore), TFG Radiant has committed to invest \$165 million to build an initial fab in East Asia using the Company's proprietary processes for manufacturing flexible CIGS PV, will provide consulting fees to the Company in connection with installation and commissioning of any fabs in East Asia, will provide license fees, royalty payments, and ownership interest in all East Asia fabs, and subject to the East Asia fab(s) meeting certain milestones related to production and costs, will provide over time incentive payments to the Company of up to \$250 million.

In connection with such strategic alliance, the Company and TFG Radiant entered into (i) a Securities Purchase Agreement, (ii) a Stockholders Agreement, (iii) a Registration Rights Agreement, and (iv) a Joint Development Agreement. In addition, TFG Radiant also entered into a Voting Agreement with Norsk Hydro Produksjon AS ( Norsk Hydro ), a substantial stockholder of the Company. The material terms of each of these agreements are described in the Company's current report on Form 8-K filed August 15, 2011.

At the time the Company and TFG Radiant entered into these agreements, an affiliate of TFG Radiant and the Company were parties to a distribution agreement for the sale of the Company's products for building integrated, automotive and portable power solutions in China. In addition, affiliates of TFG Radiant held 1,565,452 shares of the Company's common stock, which represented approximately 4.8% of the Company's outstanding common stock immediately prior to the issuance of the Company's shares to TFG Radiant in connection with the strategic alliance.



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### **Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations**

*The following discussion of our financial condition and results of operations should be read in conjunction with our unaudited financial statements and the notes to those financial statements appearing elsewhere in this Form 10-Q. This discussion and analysis contains statements of a forward-looking nature relating to future events or our future financial performance. As a result of many factors, our actual results may differ materially from those anticipated in these forward-looking statements. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements.*

#### **Overview**

We are a development stage company formed to commercialize flexible photovoltaic ( PV ) modules using our proprietary technology. For the six months ended June 30, 2011, we generated approximately \$2,211,000 of revenue. Our revenue from government research and development contracts was \$1,910,000 and our revenue from product sales was \$301,000. As of June 30, 2011, we had an accumulated deficit of approximately \$172.1 million. Currently we are in limited production utilizing a combination of equipment in our FAB1 and FAB2 production lines. We are qualifying equipment that has been delivered and additional equipment is scheduled for delivery in 2011 and we have adjusted our utilization of equipment based on our near term forecast. Under our current business plan, we expect losses to continue until annual production reaches approximately 30 MW or more. We intend to augment our own manufacturing capabilities by licensing our proprietary manufacturing processes to others. We plan to continue manufacturing at our current facilities; however, our plans are to have significant future production capacity enabled through partnerships, joint ventures or other commercial or licensing arrangements. To date, we have financed our operations primarily through public and private equity financings. On November 16, 2010, we completed a public offering of 5,250,000 shares of common stock. The offering price was \$4.15 per share resulting in total net proceeds of approximately \$20.4 million.

While focused on speed to market, we believe that quality and consistency of product will be paramount to our success in the marketplace. Our progression also takes into account market conditions, as well as financing options. In keeping with our philosophy, we completed construction of our FAB1 production line in December 2007. In March 2008, we demonstrated initial operating capacity ( IOC ) of the FAB1 production line by initiating production trials as an end-to-end integrated process. Early IOC production trials resulted in average thin-film device efficiencies of 9.5% and small area monolithically integrated module efficiencies of over 7.0%. During 2008 optimization trials resulted in thin-film device efficiencies in the 9.5% to 11.5% range and corresponding module efficiencies in the 7.0% to 9.0% range. The test modules measured approximately 15 centimeters wide by 30 centimeters long.

During 2008 we focused on testing and qualifying our FAB1 production line in anticipation of commencing production. During the first quarter of 2009, we began limited production of monolithically integrated flexible CIGS modules on our FAB1 production line and continued to provide sample modules to potential customers and development partners to explore integration of our products into new applications. In June 2009, we announced the fabrication of a five meter long CIGS module, which we believe is the largest

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monolithically interconnected CIGS module ever produced on polyimide and possibly the largest CIGS module ever produced regardless of construction. Based on internal test and evaluation, this five meter long module weighed approximately two kilograms and produced 123 watts (under standard test conditions) with an aperture area efficiency of 9.1%.

In July 2009, we obtained independent verification by the U.S. Department of Energy's National Renewable Energy Laboratory ( NREL ) that the modules produced from FAB1 measured 10.4% in conversion efficiency. The modules tested at NREL were approximately 15 centimeters wide by 30 centimeters long and were produced on the Company's FAB1 production line. In October 2009, NREL verified our achievement of a manufacturing milestone of 14.0% cell efficiency from FAB1. We also announced a peak efficiency of 11.7% for CIGS modules manufactured at FAB1. In December 2010, we achieved 12.1% module efficiency on the same form factor.

In August 2009, we completed internal qualification testing of a flexible packaging solution which successfully passed the rigorous standard of one thousand (1,000) hours of damp heat testing (85% relative humidity and 85° C temperature) guideline set forth by International Electrotechnical Commission ( IEC ) 61646 standards for performance and long term reliability of thin-film solar modules. In February 2010, three of our product configurations were certified by an independent laboratory on a variety of United States Department of Defense ( DOD ) rugged standards known as MIL-STD-810G. In October 2010, we completed full external certification under IEC 61646 at an independent laboratory of a two meter module for BAPV applications. Achieving this certification is required for building integrated photovoltaic ( BIPV ) and building applied photovoltaic ( BAPV ) applications used in commercial, industrial and residential rooftop markets. Based on our new focus and direction, certification activities will continue as required as we introduce new products and make changes or improvements to our already certified products.

In June 2010, we announced that the Defense Advanced Research Projects Agency ( DARPA ) selected us for an award under the Low-Cost Lightweight Portable Photovoltaics ( PoP ) solicitation. The Company led program, entitled Flexible High-performance Tandem-junction PV Array , consists of three gated phases that extend over 54 months. The total contract value is approximately \$3.8 million. The goal of PoP is to demonstrate low-cost, lightweight PV that can stand up to battle conditions and environmental extremes while delivering a power conversion efficiency of 20% or greater by the end of the program.

### **Commercialization and Manufacturing Expansion Plan**

We intend to be the first company to commercialize the manufacture of large, roll-format, PV modules that use CIGS on a flexible, plastic substrate. Our manufacturing expansion plan entails the design, installation, qualification, testing and operation of additional production tools to increase our rated production capacity. During the six months ended June 30, 2011, we had product sales of approximately \$301,000 which we do not consider sufficient for exiting development stage.

In March 2011, based on market conditions we revised our near-term strategy to focus on applications for emerging and specialty markets, which we believe will better leverage the unique characteristics of our product and carry higher average selling prices. The BIPV/BAPV markets are still important to our long-term growth and success. Our 2011 production volumes will be based primarily on market demand for our products in emerging and specialty markets.

During 2010, we applied for funding under the U.S. Department of Energy ( DOE ) Loan Guarantee Program for our planned third production facility ( FAB3 ) with a nameplate capacity of 150 MW per year. On February 23, 2011, the DOE informed us that our submission was selected for due diligence review by the DOE. Timing and funding requirements under the loan guarantee program did not correlate with our revised business plan and consequently, in April 2011, we informed the DOE that we were withdrawing our submission from further consideration under the program.

The Company analyzes its long-lived assets for impairment, both individually and as a group, whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. Due to recent significant adverse changes in market conditions, particularly the decreases in current and expected average selling prices for PV modules, the Company has concluded that the carrying value of Property, Plant and Equipment may not be recoverable. This analysis utilized projected selling prices and operating costs under alternative scenarios to arrive at total estimated undiscounted cash flows. As a result of this analysis, the Company recorded an impairment loss of \$78.0 million in the carrying value of Property, Plant and Equipment and Deposits on manufacturing equipment in the quarter ended June 30, 2011. The impairment loss was measured as the amount by which the carrying amount of the underlying assets exceeded fair value, as calculated using the expected present value technique. Actual cash flows may differ from the forecasts used in the analysis. This analysis incorporated many different assumptions and estimates which involve a high degree of judgment. These assumptions and estimates, which may change significantly in the future, have a substantial impact on the actual impairment loss recorded.

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The manufacture of photovoltaic modules is a capital-intensive business. Our unique technology enables the manufacture of differentiated PV products with high power density which are light weight and flexible. We believe markets of substantial size will exist long term, requiring significant additional production capacity. We also believe that over time significant production volumes will be required to achieve appropriate product costs.

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We intend to augment our own manufacturing, product development and distribution capabilities by licensing our proprietary technology and manufacturing processes to others. We plan to continue manufacturing at our current facilities; however, our plans are to have significant future production capacity enabled through partnerships, joint ventures or other commercial or licensing arrangements. We expect such arrangements would transform our business model to one that is focused on development of technologies. We plan to enable partners to commercialize such technologies in exchange for license fees, consulting revenues, non-recurring engineering fees, royalties, milestone payments, and other similar arrangements. We plan to select our partners based on their capabilities in volume manufacturing, application development, marketing, distribution, sales and service for the relevant technologies and markets.

We plan to continue the development of our current PV technology to increase module efficiency, improve our manufacturing tooling and process capabilities and reduce manufacturing costs. We plan to continue to take advantage of R&D contracts to leverage a portion of this development.

Consistent with this change in strategy, on August 15, 2011 we announced a strategic alliance with TFG Radiant Investment Group Ltd. ( TFG Radiant ).

TFG Radiant has made an initial \$7.36 million equity investment in the Company, and, in connection with such investment, has received an option to acquire an additional 9,500,000 shares of the Company's common stock at an exercise price of \$1.55 per share. The option is only exercisable after approval of the option by the Company's stockholders and achievement of certain milestones associated with the construction of the first East Asia fab described below.

In addition, in exchange for the grant by the Company of exclusive rights to manufacture and sell solar devices based on the Company's proprietary CIGS PV technology in East Asia (comprised of China, Taiwan, Hong Kong, Thailand, Malaysia, Indonesia, Korea and Singapore), TFG Radiant has committed to invest \$165 million to build an initial fab in East Asia using the Company's proprietary processes for manufacturing flexible CIGS PV, will provide consulting fees to the Company in connection with installation and commissioning of any fabs in East Asia, will provide license fees, royalty payments, and ownership interest in all East Asia fabs, and subject to the East Asia fab(s) meeting certain milestones related to production and costs, will provide over time incentive payments to the Company of up to \$250 million.

## **Capital Equipment Expenditures and Manufacturing Costs**

Since our formation in October 2005, the majority of our cash outlays have gone toward the investment in capital equipment necessary to develop our manufacturing capabilities for producing the commercial products we envision and for research and development. We expect this trend to continue into 2012 as we improve our production processes.

As of June 30, 2011, we have remaining obligations for equipment purchases in the approximate amount of \$12.3 million, of which approximately \$4.7 million is recorded in Accrued property, plant and equipment.

During the first quarter of 2009, we began limited production of monolithically integrated flexible CIGS modules from our FAB1 production line. In mid 2010 we began initial production of monolithically integrated flexible CIGS modules from our FAB2 production plant.

The timing and amount of our production capacity and actual output will depend on customer demand as well as a number of technical factors such as module efficiency, production yield and throughput. Future production in FAB2 will depend on our continuing efforts to successfully ramp up the production equipment.

We are continuing the process of qualifying the production tools that have been delivered into FAB2. We have additional tools on order that have not been delivered into FAB2. We intend to continue to optimize our manufacturing processes including throughput, efficiency and yield to improve product performance and reduce manufacturing costs within the context of our new market focus.

## **Significant Trends, Uncertainties and Challenges**

We believe that the significant trends, uncertainties and challenges that directly or indirectly affect our financial performance and results of operations include:

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Our ability to qualify production tools to achieve desired production yields, throughput, module efficiencies and other performance targets, and to obtain in a timely manner necessary or desired certifications for our PV modules;

Our ability to expand production in accordance with our plans set forth above under **Commercialization and Manufacturing Expansion Plan** ;

Our ability to achieve projected operational performance and cost metrics;

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Our ability to consummate strategic relationships with key partners, including original equipment manufacturers ( OEMs ) customers, system integrators, value added resellers and distributors who deal directly with manufacturers and end-users in the BIPV/BAPV, portable power, EIPV and government/defense solar panel markets;

Consumer and customer acceptance of and demand for our products:

The effect that currency fluctuations may have on our capital equipment purchases, manufacturing costs and the price of our planned PV modules;

Changes in the supply and demand for PV modules as well as fluctuations in selling prices for PV modules worldwide;

Our ability to raise additional capital on terms favorable to us;

Our ability to manage the planned expansion of our manufacturing facilities, operations and personnel;

Our ability to enter into commercially viable licensing, joint venture, or other commercial arrangements,

Our ability and the ability of our distributors, suppliers and customers to manage operations and orders and timely delivery of production tools; and

Availability of raw materials.

### **Critical Accounting Policies and Estimates**

Critical accounting policies used in reporting our financial results are reviewed by management on a regular basis. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and related disclosure of contingent assets and liabilities. Processes used to develop these estimates are evaluated on an ongoing basis. Estimates are based on historical experience and various other assumptions that are believed to be reasonable for making judgments about the carrying value of assets and liabilities. Actual results may differ as outcomes from assumptions may change.

Our significant accounting policies were described in Note 3 to our audited financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2010. There have been no changes to these policies that are of potential significance to us during the six months ended June 30, 2011.

### **Recent Accounting Pronouncements**

See Note 3, Summary of Significant Accounting Policies, in the *Notes to Condensed Financial Statements*.

### **Results of Operations**

#### **Comparison of the Three and Six Months Ended June 30, 2011 and 2010**

Our activities to date have substantially consisted of raising capital, business and product development, research and development and the development of our FAB1 and FAB2 production lines.

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*Research and Development Revenues.* Our revenues were \$1,026,984 for the three months ended June 30, 2011 compared to \$446,014 for the three months ended June 30, 2010, an increase of \$580,970. Revenues for the three months ended June 30, 2011 include approximately \$83,000 of product sales compared to approximately \$168,000 for the three months ended June 30, 2010, a decrease of approximately \$85,000. Revenues earned on our government contracts increased by approximately \$666,000 during the same period as a result of two government contracts that were entered into and began generating revenue in June 2010. Our revenues were \$2,210,639 for the six months ended June 30, 2011 compared to \$662,209 for the six months ended June 30, 2010, an increase of \$1,548,430. Revenues for the three and six months ended June 30, 2011 include approximately \$301,000 of product sales compared to approximately \$196,000 for the six months ended June 30, 2010, an increase of approximately \$105,000. Revenues earned on our government R&D contracts increased by approximately \$1,444,000 during the same period as a result of two government contracts that were entered into and began generating revenue in June 2010.

*Research and Development.* R&D costs were \$6,701,046 for the three months ended June 30, 2011 compared to \$5,928,020 for the three months ended June 30, 2010, an increase of \$773,026. R&D costs include the costs incurred for pre-production and production activities in FAB1 and FAB2 and facility and equipment infrastructure costs. R&D costs also include costs related to our governmental contracts. Costs related to pre-production and production activities increased approximately \$348,000. The pre-production and production cost increases were comprised of depreciation and amortization of approximately \$991,000 and materials and equipment related costs of approximately \$748,000, offset by reductions in personnel related costs of approximately \$693,000, consulting and contract service costs of approximately \$317,000, facility and IT related costs of approximately \$289,000 and stock

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compensation expense of approximately \$95,000. Governmental R&D expenditures increased by approximately \$425,000. The R&D cost increase is the result of consulting and contract service costs of \$455,000, materials and equipment related costs of approximately \$9,000, and stock compensation expense of approximately \$8,000, offset by decreases in facilities related costs of approximately \$49,000. R&D costs were \$15,295,772 for the six months ended June 30, 2011 compared to \$10,486,338 for the six months ended June 30, 2010, an increase of \$4,809,434. Costs related to pre-production activities increased approximately \$3,934,000. The pre-production cost increases were comprised of materials and equipment related costs of approximately \$2,184,000, depreciation and amortization of approximately \$2,435,000, offset by reductions in personnel related costs of approximately \$472,000, facility related costs of approximately \$207,000 and stock compensation expense of approximately \$15,000. Governmental R&D expenditures increased by approximately \$875,000. The R&D cost increases were comprised of consulting and contract service costs of approximately \$877,000, materials and equipment related costs of approximately \$15,000, personnel related costs of approximately \$55,000 and stock compensation expense of approximately \$17,000, offset by reductions in facilities related costs of approximately \$98,000.

*Selling, General and Administrative.* S,G&A expenses were \$1,641,710 for the three months ended June 30, 2011 compared to \$1,919,076 for the three months ended June 30, 2010, a decrease of \$277,366. This decrease is comprised of stock compensation expense of approximately \$251,000, personnel related costs associated with decreased headcount of approximately \$164,000 and general supplies expense of approximately \$65,000, offset by increases in legal expenses of approximately \$106,000, facility and IT related costs of approximately \$48,000 and public relations expense of approximately \$48,000. S,G&A expenses were \$4,095,578 for the six months ended June 30, 2011 compared to \$4,050,182 for the six months ended June 30, 2010, an increase of \$45,396. This increase is comprised of personnel related expenses of approximately \$416,000, legal expenses of approximately \$152,000 and public relations expense of approximately \$33,000, offset by decreases in general supplies expense of approximately \$96,000, stock compensation expense of approximately \$443,000 and public company expense of \$17,000.

*Impairment Loss.* As a result of significant changes in market conditions, particularly the decreases in current and expected average selling prices for PV modules, an impairment charge was taken against Property, Plant and Equipment during the second quarter of 2011. Impairment loss incurred on the write-down of Property, Plant and Equipment and Deposits on manufacturing equipment was \$78,000,000 for the three and six months ended June 30, 2011 compared to \$0 for the three and six months ended June 30, 2010.

*Interest Expense.* Interest costs of \$116,761 and \$120,429 were incurred and capitalized as property, plant and equipment for the three months ended June 30, 2011 and June 30, 2010, respectively. Interest incurred relates to our CHFA loan utilized for our FAB2 production facility expansion in Thornton, Colorado. Interest costs related to the aforementioned loan in the amount of \$234,462 and \$240,800 were incurred and capitalized for the six months ended June 30, 2011 and June 30, 2010, respectively.

*Interest Income.* Interest income was \$13,916 for the three months ended June 30, 2011 compared to \$4,456 for the three months ended June 30, 2010, an increase of \$9,460. Interest income was \$29,074 for the six months ended June 30, 2011 compared to \$16,566 for the six months ended June 30, 2010, an increase of \$12,508. Interest income represents interest on cash and short-term investments. Despite lower average cash balance, interest income increased due to slight improvements in interest rates in 2011 as compared to 2010.

*Realized Gain (Loss) on Forward Contracts.* Realized gain (loss) on forward contracts includes gains and losses incurred when forward contracts mature. For the three and six months ended June 30, 2011 and June 30, 2010, the realized gain on forward contracts was \$63,915 and \$0, respectively. The gain recorded in 2011 was generated from the exercise of foreign currency options held to hedge against future equipment payments to be remitted in Yen.

*Foreign Currency Transaction Gain (loss).* Foreign currency transaction gain (loss) is calculated on cash held in foreign currencies to reflect the current exchange rate. Foreign currency transaction gain was \$69,006 for the three months ended June 30, 2011 compared to foreign currency transaction loss of \$295,997 for the three months ended June 30, 2010, a net increase of \$365,003. Foreign currency transaction gain was \$263,767 for the six months ended June 30, 2011 compared to foreign currency transaction loss of \$438,627 for the six months ended June 30, 2010, a net increase of \$702,394. The increases are the result of favorable changes in the exchange rate related to our foreign currency investments.

*Net Loss.* Our Net Loss was \$85,168,935 for the three months ended June 30, 2011 compared to a Net Loss of \$7,692,430 for the three months ended June 30, 2010, an increase in Net Loss of \$77,476,505. Our Net Loss was \$94,823,522 for the six months ended June 30, 2011 compared to a Net Loss of \$14,296,179 for the six months ended June 30, 2010, an increase in Net Loss of \$80,527,343.



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The increase in Net Loss can be summarized in variances in significant account activity as follows:

	(Increase) decrease to Net Loss For the Three Months Ended June 30, 2011 Compared to the Three Months Ended June 30, 2010	(Increase) decrease to Net Loss For the Six Months Ended June 30, 2011 Compared to the Six Months Ended June 31, 2010
Research and development revenues	\$ 580,970	\$ 1,548,430
Research and development costs		
Manufacturing R&D	(443,316)	(3,949,920)
Government R&D	(416,295)	(857,913)
Non-cash stock based compensation	86,585	(1,601)
Selling, general and administrative expenses		
Corporate S,G&A	25,880	(488,679)
Non-cash stock based compensation	251,486	443,283
Impairment loss	(78,000,000)	(78,000,000)
Interest income	9,460	12,508
Realized gain (loss) on investments	(193)	240
Realized gain (loss) on forward contracts	63,915	63,915
Foreign currency transaction gain (loss)	365,003	702,394
Increase to Net Loss	\$ (77,476,505)	\$ (80,527,343)

**Liquidity and Capital Resources**

As of June 30, 2011, we had approximately \$24.9 million in cash and investments. We also had approximately \$6.4 million in restricted cash securing equipment purchases which is included in Other Assets on the Balance Sheet. On November 16, 2010, we completed a public offering of 5,250,000 shares of common stock, yielding total net proceeds of approximately \$20.4 million. We have remaining obligations for equipment purchases in the approximate amount of \$12.3 million, of which approximately \$4.7 million is recorded in Accrued property, plant and equipment.

On March 31, 2011, we announced a change in strategy that will focus our solar module technology on applications for emerging and specialty markets. The change in strategy resulted in a change in leadership and sizing the company to a new cost structure, primarily through the termination of a portion of our workforce. We incurred a charge of approximately \$450,000 in the quarter ended March 31, 2011, comprised of severance costs. This charge has been recorded under Accrued expenses in the Condensed Balance Sheets and expensed as Research and development and Selling, general and administrative in the Condensed Statement of Operations in the amounts of approximately \$72,000 and \$378,000, respectively. We made payments of approximately \$123,000 during the six months ended June 30, 2011. We expect to make payments of approximately \$100,000 during the quarter ended September 30, 2011, and the remaining estimated amount of \$227,000 over the following seven months.

Due to recent significant adverse changes in market conditions, particularly the decreases in current and expected average selling prices for PV modules, we have concluded that the carrying value of Property, Plant and Equipment and Deposits on manufacturing equipment may not be recoverable and an impairment charge in the amount of approximately \$78.0 million has been taken in the quarter ended June 30, 2011.

The use of cash for operational expenses averaged approximately \$1.7 million per month during the quarter ended June 30, 2011 compared to approximately \$2.5 million per month during the quarter ended March 31, 2011, a decrease of \$0.8 million. Cash used for operational expenses is related to manufacturing and engineering activities, research and development, business development and general corporate expenses. As of July 31, 2011, we had 79 full-time employees and 15 contractors provided through an employment services provider.

*Operating Activities.* For the six months ended June 30, 2011, our cash used in operations was \$12,604,955 compared to \$10,664,161 for the six months ended June 30, 2010, an increase of \$1,940,794. The increase in cash used in operations is comprised of inventory purchases of approximately \$1.5 million, an increase in foreign currency transaction gains of approximately \$0.7 million and a decrease in stock based

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compensation of approximately \$0.4 million, offset by increases in depreciation and amortization of approximately \$2.2 million and net increases in other assets and liabilities of approximately \$1.0 million. The increase in Net Loss of approximately \$80.5 million, offset by an impairment charge of approximately \$78.0 million, accounted for the remainder of the increase.

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*Investing Activities.* Cash used in investing activities totaled \$4,276,466 for the six months ended June 30, 2011 compared to cash provided by investing activities of \$4,940,740 for the six months ended June 30, 2010, a net change of \$9,217,206. The net change in investing activities is comprised of a net decrease in sales and maturities of investments of approximately \$10.3 million and approximately \$3.2 million transferred to Restricted Cash to facilitate future equipment payments, offset by decreases in purchases of property, plant and equipment of approximately \$2.7 million and deposits on manufacturing equipment of approximately \$1.6 million.

*Financing Activities.* Cash used in financing activities totaled \$458,614 for the six months ended June 30, 2011 compared to \$401,931 for the six months ended June 30, 2010, an increase of \$56,683. The increase in cash used in financing activities is primarily the result of a decrease of \$49,000 in proceeds received from issuance of stock.

We expect that we may need to raise additional capital to cover our operating losses and future manufacturing capacity expansion. There is no assurance that we will be able to raise additional capital on acceptable terms or at all.

On January 9, 2009, we filed a shelf Registration Statement on Form S-3 with the SEC. The SEC declared the registration statement effective on January 16, 2009. The shelf registration was utilized in connection with our public offering of approximately 4.6 million shares that closed on October 6, 2009 with gross proceeds of approximately \$30 million. The shelf registration was further used with a public offering of approximately 5.3 million shares that closed on November 16, 2010 with gross proceeds of approximately \$21.8 million. With the shelf registration, we may from time to time sell common stock, preferred stock, warrants or some combination in one or more offerings for up to \$98.2 million, the remaining amount available.

On February 28, 2011, we entered into an At-The-Market Equity Offering Sales Agreement pursuant to which we may issue and sell through an agent up to \$25,000,000 of our common stock from time to time at prevailing market prices on the NASDAQ stock exchange. As of June 30, 2011, no shares had been sold under this facility.

**Contractual Obligations**

The following table presents our contractual obligations as of June 30, 2011. Our long-term obligation is related to our building loan reflecting both principal and interest. Our purchase obligations include orders for equipment, inventory and operating expenses.

Contractual Obligations	Total	Payments Due by Year (in thousands)			
		Less Than 1 Year	1-3 Years	3-5 Years	More Than 5 Years
Long-term debt obligations	\$ 11,902	\$ 1,093	\$ 2,081	\$ 2,081	\$ 6,647
Operating lease obligations	338	338			
Purchase obligations	13,077	13,077			
Total	\$ 25,317	\$ 14,508	\$ 2,081	\$ 2,081	\$ 6,647

**Off Balance Sheet Transactions**

As of June 30, 2011, we did not have any off balance sheet arrangements as defined in Item 303(a)(4)(ii) of SEC Regulation S-K.

**Item 3. Quantitative and Qualitative Disclosures About Market Risk****Foreign Currency Exchange Risk**

We are actively engaged in purchasing manufacturing equipment internationally and are exposed to foreign currency risk.

In July 2008 and March 2009 we entered into fair value hedges utilizing forward contracts designed to match scheduled contractual payments to equipment suppliers which are denominated in Euros and Yen. The total notional value of the Euro forward contracts was 6.4 million with various contract settlement dates beginning September 15, 2008 through July 31, 2009. The total notional value of the Yen forward contracts was ¥521.4 million with contract settlement dates of March and April 2009. Those forward contracts had been settled as of December 31, 2009 and the currencies contracted for were delivered to us, however, not all payments have been made to our equipment suppliers and we continue to

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have foreign currency risk. Included in restricted cash is approximately \$3.2 million in Euros held as of June 30, 2011 in our bank account for future payments to our equipment suppliers. Based on our overall currency rate exposure as of June 30, 2011, a near-term 10% appreciation or depreciation in the United States Dollar, relative to our foreign currencies on deposit, would have a positive or negative impact of approximately \$0.3 million on our results of operations.

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Although our reporting currency is the U.S. dollar, we may conduct business and incur costs in the local currencies of other countries in which we may operate, make sales and buy materials. As a result, we are subject to currency translation risk. Further, changes in exchange rates between foreign currencies and the U.S. dollar could affect our future net sales and cost of sales and could result in exchange losses.

Our objective is to fix the dollar amount of our foreign currency denominated manufacturing equipment purchases at time of order. Although the hedging activity described below is designed to fix the dollar amount to be expended, the asset purchased is recorded at the spot foreign currency rate in effect as of the date of the payment to the supplier. The difference between the spot rate and the forward rate has been reported as a gain or loss on forward contract.

We currently have unhedged open purchase orders to equipment suppliers denominated in Yen for approximately ¥268.1 million. A 10% appreciation or depreciation in the United States Dollar, relative to these purchase obligations, would have a positive or negative impact range of approximately \$0.3 million to \$0.4 million on our future cash flows. We cannot accurately predict future exchange rates or the overall impact of future exchange rate fluctuations on our business, results of operations and financial condition.

### **Interest Rate Risk**

Our exposure to market risks for changes in interest rates relates primarily to our cash equivalents and investment portfolio. As of June 30, 2011, our cash equivalents consisted of money market funds, investments in U.S. government securities and high quality corporate securities. The primary objective of our investment activities is to preserve principal and provide liquidity on demand, while at the same time maximizing the income we receive from our investments without significantly increasing risk. The direct risk to us associated with fluctuating interest rates is limited to our investment portfolio and we do not believe that a change in interest rates will have a significant impact on our financial position, results of operations or cash flows.

### **Credit Risk**

We have certain financial and derivative instruments that potentially subject us to credit risk. These consist primarily of cash, cash equivalents, restricted cash, investments and foreign currency option contracts. We are exposed to credit losses in the event of nonperformance by the counter parties to our financial and derivative instruments. We place cash, cash equivalents, investments and forward foreign currency option contracts with various high-quality financial institutions, and exposure is limited at any one institution. We continuously evaluate the credit standing of our counter party financial institutions.

## **Item 4. Controls and Procedures**

### **Evaluation of Disclosure Controls and Procedures**

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our reports filed or submitted under the Securities Exchange Act of 1934, as amended (the Exchange Act) is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission (SEC) rules and forms. Our management, including our Chief Executive Officer and Chief Financial Officer, conducted an evaluation required by Rules 13a-15 and 15d-15 under the Exchange Act of the effectiveness of our disclosure controls and procedures as defined in Rules 13a-15 and 15d-15 under the Exchange Act as of June 30, 2011. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that as of June 30, 2011, our disclosure controls and procedures were effective.

### **Changes in Internal Control over Disclosure and Reporting**

There was no change in our internal control over financial reporting that occurred during the quarterly period ended June 30, 2011 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

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**PART II. OTHER INFORMATION**

**Item 1A. Risk Factors**

In addition to the other information set forth in this report, you should carefully consider the factors discussed in the updated risk factors in our Annual Report on Form 10-K filed on February 28, 2011, which could materially affect our business, financial condition or future results. The risks described in our Annual Report on Form 10-K filed on February 28, 2011 are not the only risks facing our company. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition or future results.

**Item 6. Exhibits**

a. A list of exhibits is found on page 29 of this report.

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**ASCENT SOLAR TECHNOLOGIES, INC.**

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized on the 15th day of August, 2011.

ASCENT SOLAR TECHNOLOGIES, INC.

By: */s/ GARY GATCHELL*  
**Gary Gatchell**

**Chief Financial Officer**

**(Principal Financial Officer and Authorized Signatory)**

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**ASCENT SOLAR TECHNOLOGIES, INC.**

**EXHIBIT INDEX**

<b>Exhibit</b>	
<b>No.</b>	<b>Description</b>
31.1	Chief Executive Officer Certification pursuant to section 302 of the Sarbanes-Oxley Act of 2002*
31.2	Chief Financial Officer Certification pursuant to section 302 of the Sarbanes-Oxley Act of 2002*
32.1	Chief Executive Officer Certification pursuant to section 906 of the Sarbanes-Oxley Act of 2002*
32.2	Chief Financial Officer Certification pursuant to section 906 of the Sarbanes-Oxley Act of 2002*
101.INS**	XBRL Instance Document
101.SCH**	XBRL Taxonomy Extension Schema Document
101.CAL**	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF**	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB**	XBRL Taxonomy Extension Label Linkbase Document
101.PRE**	XBRL Taxonomy Extension Presentation Linkbase Document

\* Filed herewith

\*\* XBRL information is furnished and not filed or a part of a registration statement or prospectus for purposes of sections 11 or 12 of the Securities Exchange Act of 1933, as amended, is deemed not filed for purposes of section 18 of the Securities Exchange Act of 1934, as amended, and otherwise is not subject to liability under these sections.