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, 2024
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)

Delaware **(State or other jurisdiction of incorporation or organization)**	**20-3672603** **(I.R.S. Employer Identification No.)**
12300 Grant Street, Thornton, CO **(Address of principal executive offices)**	**80241** **(Zip Code)**

Registrant's telephone number including area code: 720-872-5000

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of exchange on which registered
Common	ASTI	Nasdaq Capital Markets

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 every Interactive Data File required to be submitted 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	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.☐

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 6, 2024, there were 102,344,843 shares of our common stock issued and outstanding.

ASCENT SOLAR TECHNOLOGIES, INC.
Quarterly Report on Form 10-Q
For the Period Ended June 30, 2024
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FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q includes “forward-looking statements” that involve risks and uncertainties. Forward-looking statements include statements concerning our plans, objectives, goals, strategies, future events, future net sales or performance, capital expenditures, financing needs, plans or intentions relating to acquisitions, business trends and other information that is not historical information and, in particular, appear under headings including “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Overview.” When used in this Quarterly Report, the words “estimates,” “expects,” “anticipates,” “projects,” “plans,” “intends,” “believes,” “forecasts,” “foresees,” “likely,” “may,” “should,” “goal,” “target,” and variations of such words or similar expressions are intended to identify forward-looking statements. All forward-looking statements are based upon information available to us on the date of this Quarterly Report.

These forward-looking statements are subject to risks, uncertainties and other factors, many of which are outside of our control, that could cause actual results to differ materially from the results discussed in the forward-looking statements, including, among other things, the matters discussed in this Quarterly Report in the sections captioned “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” Factors you should consider that could cause these differences are:

- Our operating history and lack of profitability;
- Our ability to develop demand for, and sales of, our products;
- Our ability to attract and retain qualified personnel to implement our business plan and corporate growth strategies;
- Our ability to develop sales, marketing and distribution capabilities;
- Our ability to successfully develop and maintain strategic relationships with key partners;
- The accuracy of our estimates and projections;
- Our ability to secure additional financing to fund our short-term and long-term financial needs;
- Our ability to maintain the listing of our common stock on the Nasdaq Capital Market.
- The commencement, or outcome, of legal proceedings against us, or by us, including ongoing litigation proceedings;
- Changes in our business plan or corporate strategies;
- The extent to which we are able to manage the growth of our operations effectively, both domestically and abroad, whether directly owned or indirectly through licenses;
- The supply, availability and price of equipment, components and raw materials, including the elements needed to produce our photovoltaic modules;
- Our ability to expand and protect the intellectual property portfolio that relates to our photovoltaic modules and processes;
- Our ability to maintain effective internal controls over financial reporting;
- Our ability to achieve projected operational performance and cost metrics;
- General economic and business conditions, and in particular, conditions specific to the solar power industry; and
- Other risks and uncertainties discussed in greater detail elsewhere in this Quarterly Report and in Part I, Item 1A “Risk Factors” of our Annual Report on Form 10-K for the year ended December 31, 2023

There may be other factors that could cause our actual results to differ materially from the results referred to in the forward-looking statements. We undertake no obligation to publicly update or revise forward-looking statements to reflect subsequent events or circumstances after the date made, or to reflect the occurrence of unanticipated events, except as required by law.

References to “we,” “us,” “our,” “Ascent,” “Ascent Solar” or the “Company” in this Quarterly Report mean Ascent Solar Technologies, Inc.

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ASCENT SOLAR TECHNOLOGIES, INC.

PART I. FINANCIAL INFORMATION

Item 1. Condensed Financial Statements

CONDENSED BALANCE SHEETS
(unaudited)

	June 30, 2024	December 31, 2023
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 5,785,058	$ 1,048,733
Trade receivables, net of allowance of $0 and $0, respectively	22,324	-
Inventories, net	460,856	447,496
Prepaid and other current assets	149,451	39,279
Total current assets	6,417,689	1,535,508
Property, Plant and Equipment:	19,679,497	21,177,892
Accumulated depreciation	(19,412,704)	(20,131,008)
Property, Plant and Equipment, net	266,793	1,046,884
Other Assets:		
Operating lease right-of-use assets, net	2,129,854	2,364,672
Patents, net of accumulated amortization of $178,704 and $173,387 respectively	48,661	53,978
Equity method investment	64,931	68,867
Other non-current assets	1,228,399	1,228,797
	3,471,845	3,716,314
Total Assets	$ 10,156,327	$ 6,298,706
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)		
Current Liabilities:		
Accounts payable	$ 657,140	$ 579,237
Related party payables	5,769	4,231
Accrued expenses	1,096,959	1,354,159
Accrued payroll	238,834	160,477
Accrued professional services fees	161,258	849,282
Accrued interest	638,633	628,145
Current portion of operating lease liability	533,503	491,440
Conversions payable (Note 12)	-	1,089,160
Current portion of convertible notes, net	-	354,936
Bridge loan	637,751	-
Other payable	250,000	250,000
Total current liabilities	4,219,847	5,761,067
Long-Term Liabilities:		
Non-current operating lease liabilities	1,762,575	2,043,025
Accrued warranty liability	21,225	21,225
Total liabilities	6,003,647	7,825,317
Commitments and contingencies (Note 17)		
Stockholders' Equity (Deficit):		
Series A preferred stock, $.0001 par value; 750,000 shares authorized; 48,100 and 48,100 shares issued and outstanding, respectively ($923,386 and $899,069 Liquidation Preference, respectively)	5	5
Common stock, $0.0001 par value, 500,000,000 authorized; 98,825,076 and 3,583,846 shares issued and outstanding, respectively	9,882	358
Additional paid in capital	492,598,096	480,942,526
Accumulated deficit	(488,462,005)	(482,478,436)
Accumulated other comprehensive loss	6,702	8,936
Total stockholders' equity (deficit)	4,152,680	(1,526,611)
Total Liabilities and Stockholders' Equity (Deficit)	$ 10,156,327	$ 6,298,706

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

ASCENT SOLAR TECHNOLOGIES, INC.

CONDENSED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME
(unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	**2023**	**2024**	**2023**
Revenues				
Products	$ 27,743	$ 86,385	$ 33,343	$ 185,610
Milestone and engineering	-	14,916	-	39,916
Total Revenues	27,743	101,301	33,343	225,526
Costs and Expenses				
Costs of revenue	61,524	666,269	70,912	1,128,064
Research, development and manufacturing operations	506,001	822,321	1,113,231	2,488,016
Selling, general and administrative	1,611,438	1,178,832	2,671,489	2,770,652
Share-based compensation	185,702	560,861	444,928	1,965,311
Depreciation and amortization	18,651	24,443	39,408	50,224
Impairment loss	-	-	524,481	-
Total Costs and Expenses	2,383,316	3,252,726	4,864,449	8,402,267
Loss from Operations	(2,355,573)	(3,151,425)	(4,831,106)	(8,176,741)
Other Income/(Expense)				
Other income/(expense), net	(37,988)	-	26,333	10,000
Warrant settlement (Note 15)	(743,459)	-	(743,459)	-
Interest expense	(307,081)	(761,877)	(433,635)	(1,829,913)
Total Other Income/(Expense)	(1,088,528)	(761,877)	(1,150,761)	(1,819,913)
Income/(Loss) on Equity Method Investments	(1,726)	(170)	(1,702)	(170)
Net Income/(Loss)	$ (3,445,827)	$ (3,913,472)	$ (5,983,569)	$ (9,996,824)
Net Income/(Loss) Per Share (Basic and Diluted)	$ (0.07)	$ (66.40)	$ (0.21)	$ (105.08)
Weighted Average Common Shares Outstanding (Basic)	50,995,733	234,439	27,876,905	206,041
Weighted Average Common Shares Outstanding (Diluted)	50,995,733	234,439	27,876,905	206,041
Other Comprehensive Income/(Loss)				
Foreign currency translation gain/(loss)	(522)	(4,836)	(2,234)	1,870
Net Comprehensive Income/(Loss)	$ (3,446,349)	$ (3,918,308)	$ (5,985,803)	$ (9,994,954)

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

ASCENT SOLAR TECHNOLOGIES, INC.

CONDENSED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIT)
(unaudited)
For the Three and Six Months Ended June 30, 2024

	Series A Preferred Stock		Common Stock		Additional Paid-In	Accumulated	Other Accumulated Comprehensive	Total Stockholders' Equity
	Shares	Amount	Shares	Amount	Capital	Deficit	Loss	(Deficit)
Balance at January 1, 2024	48,100	$ 5	3,583,846	$ 358	$ 480,942,526	$ (482,478,436)	$ 8,936	$ (1,526,611)
Conversion of L1 Note into Common Stock	-	-	2,411,788	241	1,256,451	-	-	1,256,692
Exercise of prefunded warrants	-	-	715,111	72	(72)	-	-	-
Share-based compensation	-	-	-	-	259,234	-	-	259,234
Net Loss	-	-	-	-	-	(2,537,742)	-	(2,537,742)
Foreign Currency Translation Loss	-	-	-	-	-	-	(1,712)	(1,712)
Balance at March 31, 2024	48,100	$ 5	6,710,745	$ 671	$ 482,458,139	$ (485,016,178)	$ 7,224	$ (2,550,139)
Sale of common stock	-	-	15,179,460	1,518	4,453,722	-	-	4,455,240
Exercise of prefunded warrants	-	-	21,162,277	2,116	(2,116)	-	-	-
Share-based compensation	-	-	79,951	8	170,741	-	-	170,749
Proceeds from sale on ATM facility, net of expenses of $617,694	-	-	55,342,643	5,534	8,335,686	-	-	8,341,220
Common stock issued to settle liabilities	-	-	350,000	35	38,465	-	-	38,500
Warrant repurchase	-	-	-	-	(3,600,000)	-	-	(3,600,000)
Warrant settlement	-	-	-	-	743,459	-	-	743,459
Net Loss	-	-	-	-	-	(3,445,827)	-	(3,445,827)
Foreign Currency Translation Loss	-	-	-	-	-	-	(522)	(522)
Balance at June 30, 2024	48,100	$ 5	98,825,076	$ 9,882	$ 492,598,096	$ (488,462,005)	$ 6,702	$ 4,152,680

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

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ASCENT SOLAR TECHNOLOGIES, INC.

CONDENSED STATEMENTS OF CHANGES IN STOCKHOLDERS' DEFICIT (unaudited) For the Three and Six Months Ended June 30, 2023

	Series A Preferred Stock		Series 1B Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Deficit	Other Accumulated Comprehensive Loss	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount	Shares	Amount				
Balance at January 1, 2023	48,100	$ 5	-	$ -	259,323	$ 26	$ 448,343,153	$ (447,427,862)	$ (16,024)	$ 899,298
Conversion of L1 Note into Common Stock	-	-	-	-	7,200	1	508,739	-	-	508,740
Conversion of Sabby Note into Common Stock	-	-	-	-	10,255	1	1,083,717	-	-	1,083,718
Share-based compensation	-	-	-	-	-	-	1,404,450	-	-	1,404,450
Net Loss	-	-	-	-	-	-	-	(6,083,352)	-	(6,083,352)
Foreign Currency Translation Loss	-	-	-	-	-	-	-	-	6,706	6,706
Balance at March 31, 2023	48,100	$ 5	-	$ -	276,778	$ 28	$ 451,340,059	$ (453,511,214)	$ (9,318)	$ (2,180,440)
Conversion of L1 Note into Common Stock	-	-	-	-	37,929	4	732,074	-	-	732,078
Conversion of Sabby Note into Common Stock	-	-	-	-	52,775	5	1,039,926	-	-	1,039,931
Share-based compensation	-	-	-	-	-	-	560,861	-	-	560,861
Proceeds from issuance of Series 1B Preferred Stock	-	-	900	-	-	-	900,000	-	-	900,000
Preferred Stock issuance cost							(20,000)			(20,000)
Common stock issued for services	-	-	-	-	1,425	-	92,750	-	-	92,750
Down round deemed dividend	-	-	-	-	-	-	11,653,986	(11,653,986)	-	-
Net Loss	-	-	-	-	-	-	-	(3,913,472)	-	(3,913,472)
Foreign Currency Translation Loss	-	-	-	-	-	-	-	-	(4,836)	(4,836)
Balance at June 30, 2023	48,100	$ 5	900	$ -	368,907	$ 37	$ 466,299,656	$ (469,078,672)	$ (14,154)	$ (2,793,128)

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

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ASCENT SOLAR TECHNOLOGIES, INC.

CONDENSED STATEMENTS OF CASH FLOWS
(unaudited)

	For the Six Months Ended June 30, 2024	2023
Operating Activities:		
Net income/(loss)	$ (5,983,569)	$ (9,996,824)
Adjustments to reconcile net income (loss) to cash used in operating activities:		
Depreciation and amortization	39,408	50,224
Share-based compensation	444,924	1,965,311
Stock issued for services	38,500	—
Stock issued for warrant settlement	743,459	—
Operating lease asset amortization	234,818	394,638
Amortization of debt discount	64,017	1,542,085
Loss on equity method investment	1,702	170
Inventory reserve expense	(35,915)	83,357
Impairment loss	524,481	—
Other	(14,941)	—
Changes in operating assets and liabilities:		
Accounts receivable	(22,324)	(13,147)
Inventories	22,555	(146,362)
Prepaid expenses and other current assets	(109,774)	17,330
Accounts payable	77,903	557,146
Related party payable	1,538	(51,971)
Operating lease liabilities	(238,387)	(384,708)
Accrued interest	10,488	113,909
Accrued expenses	(645,348)	(708,984)
Net cash used in operating activities	(4,846,465)	(6,577,826)
Investing Activities:		
Payments on purchase of assets	—	(3,841,373)
Patent activity costs	—	(8,169)
Net cash used in investing activities	—	(3,849,542)
Financing Activities:		
Proceeds from issuance of Series 1B Preferred Stock	—	880,000
Proceeds from bridge loans	1,153,750	—
Repayment of bridge loans	(560,756)	—
Proceeds from issuance of Common Stock	12,796,460	—
Warrant repurchase	(3,600,000)	—
Payment of convertible notes and cash payable	(206,664)	(1,025,423)
Net cash provided by (used in) financing activities	9,582,790	(145,423)
Effect of foreign exchange rate on cash	—	(4,606)
Net change in cash and cash equivalents	4,736,325	(10,577,397)
Cash and cash equivalents at beginning of period	1,048,733	11,483,018
Cash and cash equivalents at end of period	$ 5,785,058	$ 905,621
Non-Cash Transactions:		
Exercise of prefunded warrants	$ 2,188	$ —
Non-cash conversions of convertible notes to equity	$ 1,256,692	$ 3,364,467
Down round deemed dividend	$ —	$ 11,653,986
Supplemental disclosure of cash flow information:		
Cash paid during the year for:		
Interest	$ 258,000	$ 173,600

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

NOTES TO UNAUDITED CONDENSED FINANCIAL STATEMENTS

NOTE 1. ORGANIZATION

Ascent Solar Technologies, Inc. (the “Company") is focusing on integrating its photovoltaic ("PV") products into scalable and high value markets such as agrivoltaics, aerospace, satellites, near earth orbiting vehicles, and fixed wing unmanned aerial vehicles (“UAV”). The value proposition of Ascent’s proprietary solar technology not only aligns with the needs of customers in these industries, but also overcomes many of the obstacles other solar technologies face in these unique markets. Ascent has the capability to design and develop finished products for end users in these areas as well as collaborate with strategic partners to design and develop custom integrated solutions for products like fixed-wing UAVs. Ascent sees significant overlap of the needs of end users across some of these industries and can achieve economies of scale in sourcing, development, and production in commercializing products for these customers.

NOTE 2. BASIS OF PRESENTATION

The accompanying, unaudited, condensed financial statements have been derived from the accounting records of the Company as of June 30, 2024, and December 31, 2023, and the results of operations for the three and six months ended June 30, 2024, and 2023.

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 8 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, 2023, 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, 2023. 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, 2023.

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 three and six months ended June 30, 2024, are not necessarily indicative of the results that may be expected for the year ending December 31, 2024.

NOTE 3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The Company’s significant accounting policies were described in Note 2 to the audited financial statements included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2023. There have been no significant changes to our accounting policies as of June 30, 2024.

Revenue Recognition:

Product revenue. The Company recognizes revenue for the sale of PV modules and other equipment sales at a point in time following the transfer of control of such products to the customer, which typically occurs upon shipment or delivery depending on the terms of the underlying contracts. For module and other equipment sales contracts that contain multiple performance obligations, the Company allocates the transaction price to each performance obligation identified in the contract based on relative standalone selling prices, or estimates of such prices, and recognizes the related revenue as control of each individual product is transferred to the customer.

During the three months ended June 30, 2024 and 2023, the Company recognized product revenue of $27,743 and $86,385, respectively. During the six months ended June 30, 2024 and 2023, the Company recognized product revenue of $33,343 and $185,610, respectively.

Milestone and engineering revenue. Each milestone and engineering arrangement is a separate performance obligation. The transaction price is estimated using the most likely amount method and revenue is recognized as the performance obligation is satisfied through achieving manufacturing, cost, or engineering targets. During the three months ended June 30, 2024 and 2023, the Company recognized total milestone and engineering revenue of $0 and $14,916, respectively. During the six months ended June 30, 2024 and 2023, the Company recognized total milestone and engineering revenue of $0 and $39,916, respectively.

Government contracts revenue. Revenue from government research and development contracts is generated under terms that are cost plus fee or firm fixed price. The Company generally recognizes this revenue over time using cost-based input methods, which recognizes revenue and gross profit as work is performed based on the relationship between actual costs incurred compared to the total estimated costs of the contract. In applying cost-based input methods of revenue recognition, the Company uses the actual costs incurred relative to the total estimated costs to determine our progress towards contract completion and to calculate the corresponding amount of revenue to recognize.

Cost based input methods of revenue recognition are considered a faithful depiction of the Company's efforts to satisfy long-term government research and development contracts and therefore reflect the performance obligations under such contracts. Costs incurred that do not contribute to satisfying the Company's performance obligations are excluded from the input methods of revenue recognition as the amounts are not reflective of transferring control under the contract. Costs incurred towards contract completion may include direct costs plus allowable indirect costs and an allocable portion of the fixed fee. If actual and estimated costs to complete a contract indicate a loss, provision is made currently for the loss anticipated on the contract.

No government contract revenue was recognized during the three and six months ended June 30, 2024 and 2023.

Accounts Receivable. As of June 30, 2024 and December 31, 2023, the Company had an accounts receivable, net balance of $22,324 and $0, respectively. As of June 30, 2024 and December 31, 2023, the Company had an allowance for doubtful accounts of $0 and $0, respectively.

Deferred revenue for the six months ended June 30, 2024 was as follows:

Balance as of January 1, 2024	$	935
Additions		7,700
Recognized as revenue		(3,425)
Balance as of June 30, 2024	$	5,210

Other Assets: Other assets is comprised of the following:

		June 30, 2024		December 31, 2023
Lease security deposit	$	625,000	$	625,000
Spare machine parts		603,399		603,797
Total Other Assets	$	1,228,399	$	1,228,797

Earnings per Share: Earnings per share ("EPS") are the amount of earnings attributable to each share of common stock. Basic EPS has been computed by dividing income available to common stockholders by the weighted-average number of common shares outstanding during the period. Income available to common stockholders has been computed by deducting dividends accumulated for the period on cumulative preferred stock (whether or not earned) and deemed dividends due to down round financings from net income. For the three and six months ended June 30, 2023, income available to common stockholders was adjusted for deemed dividends due to down round financings of $11,653,986 (See Note 10 in the Company's Annual Report on Form 10-K for the year ended December 31, 2023). Diluted earnings per share has been computed by dividing income available to common stockholders adjusted on an if-converted basis for the period by the weighted average number of common shares and potentially dilutive common share outstanding (which consist of warrants, options, restricted stock units and convertible securities using the if-converted or treasury stock method to the extent they are dilutive). Approximately 11.2 million and 0.28 million shares of dilutive shares were excluded from the three months period ended June 30, 2024 and 2023, respectively, EPS calculation as their impact is antidilutive. Approximately 7.6 million and 0.28 million shares of dilutive shares were excluded from the six months period ended June 30, 2024 and 2023, respectively, EPS calculation as their impact is antidilutive.

Net loss attributable to common shareholders for the three and six months ended June 30, 2023 was as follows:

	Three months ended June 30, 2023	Six months ended June 30, 2023
Net Loss	$ (3,913,472)	$ (9,996,824)
Down round deemed dividend	(11,653,986)	(11,653,986)
Net Loss attributable to common shareholders	(15,567,458)	(21,650,810)
Earnings Per Share (Basic and Diluted)	(66.40)	(105.08)

Recently Issued Accounting Policies

In November 2023, the FASB issued ASU 2023-07, *Segment Reporting: Improvement to Reportable Segment Disclosures* ("ASU 2023-07"). ASU 2023-07 improves segment disclosure requirements primarily through enhanced disclosures about significant segment expenses. In addition, the amendments enhance interim disclosure requirements, clarify circumstances in which an entity can disclose multiple segment measures of profit or loss, provide new segment disclosure requirements for entities with a single reportable segment, and contain other disclosure requirements. The amendments in ASU 2023-07 are effective for all public entities for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024. Early adoption is permitted. Management is evaluating the impact of this ASU on the Company's financial statements.

In December 2023, the FASB issued ASU 2023-09, *Income Taxes: Improvements to Income Tax Disclosures* ("ASU 2023-09"). ASU 2023-09 improves income tax disclosures by requiring public entities annually to (1) disclose specific categories in the rate reconciliation and (2) provide additional information for reconciling items that meet a quantitative threshold. ASU 2023-09 is effective for public entities for annual periods beginning after December 15, 2024. Entities are permitted to early adopt the standard for annual financial statements that have not yet been issued or made available for issuance. Management is evaluating the impact of this ASU on the Company's financial statements.

NOTE 4. LIQUIDITY, CONTINUED OPERATIONS, AND GOING CONCERN

During the year ended December 31, 2023, the Company sold Series 1B preferred stock and completed a public offering to fund operations. Further discussion of these transactions can be found in Notes 13 and 14 in the Company's Annual Report on Form 10-K for the year ended December 31, 2023. The Company continues to enter into financing arrangements in 2024 to fund operations.

The Company currently has limited production capabilities in its Thornton facility and continues to focus on restarting production at industrial scale while continuing its research and development activities to improve its PV products. The Company does not expect that sales revenue and cash flows will be sufficient to support operations and cash requirements until it has fully implemented this strategy. During the six months ended June 30, 2024, the Company used $4,846,465 in cash for operations.

Current committed product revenues are not anticipated to result in a positive cash flow position for the next twelve months and although the Company has, as of June 30, 2024, working capital of $2,197,842, Management does not believe cash liquidity is sufficient for the next twelve months and will require additional financing or committed purchase orders.

The Company continues to look for ways to expand its production of PV films at industrial scale and to secure long-term contracts for the sale of such output. The Company also continues activities related to securing additional financing through strategic or financial investors, but there is no assurance the Company will be able to raise additional capital on acceptable terms or at all. If the Company's revenues do not increase rapidly, and/or additional financing is not obtained, the Company will be required to significantly curtail operations to reduce costs and/or sell assets. Such actions would likely have an adverse impact on the Company's future operations.

As a result of the Company’s recurring losses from operations and the potential need for additional financing to fund its operating and capital requirements, there is uncertainty regarding the Company’s ability to maintain liquidity sufficient to operate its business effectively, which raises doubt as to the Company’s ability to continue as a going concern.

Management cannot provide any assurances that the Company will be successful in accomplishing any of its plans. These condensed financial statements do not include any adjustments that might be necessary should the Company be unable to continue as a going concern.

NOTE 5. RELATED PARTY TRANSACTIONS

In September 2021, the Company and TubeSolar AG ("TubeSolar"), a former significant stakeholder in the Company, entered into a Long-Term and Joint Development Agreement ("JDA") where the Company would provide PV foils for use in TubeSolar's solar modules for agricultural photovoltaic applications.The Company and TubeSolar also jointly established Ascent Solar Technologies Germany GmbH (“Ascent Germany”), in which TubeSolar holds of 30% of the entity. Ascent Germany was established to operate a PV manufacturing facility in Germany that will produce and deliver PV Foils exclusively to TubeSolar. There were no Company contributions to Ascent Germany during the six months ended June 30, 2024 and 2023.

In June, 2023, TubeSolar filed an application for insolvency proceedings with the insolvency court. Since then, there has been no activity under the JDA and minimal activity in Ascent Germany. Management continues to monitor this situation.

NOTE 6. SWITZERLAND ASSETS

On April 17, 2023, the Company entered into an Asset Purchase Agreement (the “Asset Purchase Agreement”) with Flisom AG (“Seller”), pursuant to which, among other things, the Company purchased certain assets relating to thin-film photovoltaic manufacture and production from Seller (collectively, the “Assets”). The purchase price paid by the Company was $4,083,926 (including $1,283,926 of transaction costs). The Company also entered into a sublease agreement allowing the Company to use the manufacturing facility where the Assets are located.

During the year ended December 31, 2023, Management concluded that these assets were impaired and recognized an impairment loss of $3,283,715. The remaining carrying value of the Assets, as of December 31, 2023, was $786,000. On April 1, 2024, the Company entered into an agreement with the manufacturing facility landlord (“Landlord”) and sold all but one piece of equipment from the Assets to the Landlord for 1 CHF and forgiveness of $221,519 in payables and any potential future claims the manufacturing facility Landlord may have. The carrying value of the Assets sold was $746,000.

At March 31, 2024, the Company designated the Assets as assets held for sale as all of the following criteria have been met: (i) a formal commitment to a plan to sell a property has been made and exercised; (ii) the property is available for sale in its present condition; (iii) actions required to complete the sale of the property have been initiated; (iv) sale of the property is probable and we expect the sale will occur within one year; and (v) the property is being actively marketed for sale at a price that is reasonable given its current market value. Assets held for sale were recorded in Property, Plant and Equipment, net in the unaudited condensed balance sheets.

Upon designation as an asset held for sale, the Company recorded the carrying value of the property at the lower of its carrying value or its estimated fair value, less estimated costs to sell, and depreciation of the property ceases. As the estimated fair value of $221,519, the price the Company sold the Assets for is less than their carrying value, the Company recorded an impairment loss of $524,481. Upon completion of the sale, on April 1, 2024, the Company wrote off the remaining carrying value of the Assets and the payables to the Landlord.

NOTE 7. PROPERTY, PLANT AND EQUIPMENT

The following table summarizes property, plant and equipment as of June 30, 2024 and December 31, 2023:

	As of June 30, 2024	As of December 31, 2023
Furniture, fixtures, computer hardware and computer software	$ 468,588	$ 468,588
Manufacturing machinery and equipment	19,162,828	20,661,222
Leasehold improvements	15,994	15,995
Manufacturing machinery and equipment, in progress	32,087	32,087
Depreciable property, plant and equipment	19,679,497	21,177,892
Less: Accumulated depreciation and amortization	(19,412,704)	(20,131,008)
Net property, plant and equipment	$ 266,793	$ 1,046,884

Depreciation expense for the three months ended June 30, 2024 and 2023 was $17,045 and $19,650, respectively. Depreciation expense for the six months ended June 30, 2024 and 2023 was $34,091 and $40,639, respectively. Depreciation expense is recorded under "Depreciation and amortization expense" in the unaudited Condensed Statements of Operations.

NOTE 8. OPERATING LEASE

The Company's lease is primarily comprised of manufacturing and office space. This lease is classified and accounted for as an operating lease. The building lease term is for 88 months commencing on September 21, 2020 at a rent of $50,000 per month including taxes, insurance and common area maintenance until December 31, 2020. Beginning January 1, 2021, the rent adjusted to $80,000 per month on a triple net basis and shall increase at an annual rate of 3% per annum until December 31, 2027.

Effective September 1, 2023, the lease was amended to reduce the rentable square feet from approximately 100,000 to approximately 75,000 square feet and the rent and tenant share of expenses were decreased in proportion to the reduction in the rentable square feet.

As of June 30, 2024 and December 31, 2023, assets and liabilities related to the Company's leases were as follows:

	As of June 30, 2024	As of December 31, 2023
Operating lease right-of-use assets, net	$ 2,129,854	$ 2,364,672
Current portion of operating lease liability	533,503	491,440
Non-current portion of operating lease liability	1,762,575	2,043,025

During the three months ended June 30, 2024 and 2023, the Company recorded operating lease expense included in selling, general and administrative expenses of $190,497 and $271,542, respectively. During the six months ended June 30, 2024 and 2023, the Company recorded operating lease expense included in selling, general and administrative expenses of $380,995 and $533,910, respectively.

Future maturities of the operating lease liability are as follows:

Remainder of 2024	$ 384,565
2025	792,203
2026	815,969
2027	840,449
Total lease payments	**2,833,186**
Less amounts representing interest	(537,108)
Present value of lease liability	**$ 2,296,078**

The remaining weighted average lease term and discount rate of the operating leases is 42 months and 7.0%, respectively.

NOTE 9. INVENTORIES

Inventories, net of reserves, consisted of the following at June 30, 2024 and December 31, 2023:

	As of June 30, 2024	As of December 31, 2023
Raw materials	$ 460,165	$ 445,721
Work in process	691	1,775
Finished goods	-	-
Total	$ 460,856	$ 447,496

NOTE 10. BRIDGE LOAN

	Principal Balance 1/1/2024	New loans	Principal Payments	Principal Balance 6/30/2024	Discount	Bridge Loan, net of discount
Bridge Loans	$ —	$ 1,240,800	$ (560,756)	$ 680,044	$ (42,293)	$ 637,751

On February 27, 2024, the Company entered into a loan agreement ("Loan 1") with a lender ("Lender") for an aggregate principal amount of $375,000. The Company paid origination fees of $25,000 for net proceeds of $350,000. The discount is recorded as interest expense ratably over the term of the loan. Under Loan 1, the Company will make weekly payments of $19,420 for 28 weeks for a total repayment of $543,750. The Company also had an early repayment option where the Company would repay an aggregate of $478,125 if repaid by April 15, 2024.

On April 17, 2024, the Company entered into a new loan agreement ("Loan 2") with the Lender. Under Loan 2, the Company borrowed an aggregate principal amount of $685,000, incurred origination fees of $34,250, and repaid the outstanding balance of Loan 1 of $428,310 for net proceeds of $222,440. Under Loan 2, the Company will make weekly payments of $31,000 for 32 weeks for a total repayment of $993,250. This loan is secured by a lien on the Company's assets.

As of June 30, 2024, principal and interest payable on Loan 2 was $524,420 and $5,452, respectively. The Company also recognized $360,039 in interest expense during the six months ended June 30, 2024.

On April 1 and 2, 2024, the Company closed two loan agreements with a different lender ("Lender 2") for an aggregate principal amount of $180,800. These loans have an original issuance discount of $20,800 for net proceeds of $160,000. The Company will repay a total of $202,496 under these loans. The loans mature on January 1, 2025 and are payable in monthly installments as defined in the loan agreements. Upon a default event, outstanding principal and interest payable is convertible into Company stock at a 25% discount; however, the conversion price cannot be below $0.25.

At June 30, 2024, principal and interest payable on these loans was $155,624 and $5,980, respectively. The Company also recognized $17,962 in interest expense during the six months ended June 30, 2024.

The carrying amount of these bridge loans approximate fair value due to its short maturity and because the Company's current borrowing rate does not materially differ from market rates for similar bank borrowings and is considered to be Level 2 input on the fair value hierarchy.

NOTE 11. OTHER PAYABLE

On June 30, 2017, the Company entered into an agreement with a vendor (“Vendor”) to convert the balance of their account into a note payable in the amount of $250,000. The note bears interest of 5% per annum and matured on February 28, 2018. As of June 30, 2024, the Company had not made any payments on this note, the accrued interest was $87,568, and the note is due upon demand. This note is recorded as Other payable in the unaudited Condensed Balance Sheets.

NOTE 12. CONVERTIBLE NOTES

The following table provides a summary of the activity of the Company's secured, convertible, promissory notes:

	Principal Balance 12/31/2023	Notes converted	Notes paid	Net Principal Balance 6/30/2024
L1 Capital Global Opportunities Master Fund, Ltd	$ 406,667	$ (400,000)	$ (6,667)	$ —

During the six months ended June 30, 2024, $400,000 of principal was converted for 618,384 shares of common stock. The note matured on June 19, 2024 and the Company paid the remaining principal and interest payable. During the three months ended June 30, 2024 and 2023, the Company had interest expense of $463 and $746,578, respectively, of which, $397 and $640,438, respectively was due to accretion of discount on the note. During the six months ended June 30, 2024 and 2023, the Company had interest expense of $463,397 and $1,799,506, respectively, of which, $19,260 and $1,542,097, respectively was due to accretion of discount on the note.

Conversions Payable represents the economic difference between the applicable conversion price of the notes payable and floor price of $0.65. This amount is payable either in shares valued as the VWAP on the conversion day or in cash. If the VWAP on the conversion day is less than the floor price, then the economic different between the conversion day VWAP and the floor price becomes payable in cash and is recorded as Cash payable on the unaudited Condensed Balance Sheet. During the three months ended March 31, 2024, $1,279,782 of conversions payable was converted into 1,793,404 shares of common stock and $199,997 of Cash payable. The Cash payable was paid in April 2024 with the close of the Company's public offering (see Note 15).

NOTE 13. SERIES A PREFERRED STOCK

As of January 1, 2024, there were 48,100 shares of Series A Preferred Stock outstanding. Holders of Series A Preferred Stock are entitled to cumulative dividends at a rate of 8% per annum when and if declared by the Board of Directors at its sole discretion. The dividends may be paid in cash or in the form of common stock (valued at 10% below market price, but not to exceed the lowest closing price during the applicable measurement period), at the discretion of the Board of Directors. The dividend rate on the Series A Preferred Stock is indexed to the Company's stock price and subject to adjustment.

The Series A Preferred Stock may be converted into shares of common stock at the option of the Company if the closing price of the common stock exceeds $232 million, adjusted for reverse stock splits, for twenty consecutive trading days, or by the holder at any time. The Company has the right to redeem the Series A Preferred Stock at a price of $8.00 per share, plus any accrued and unpaid dividends, plus the make-whole amount (if applicable). At June 30, 2024, the preferred shares were not eligible for conversion to common shares at the option of the Company. The holder of the preferred shares may convert to common shares at any time. After making adjustment for the Company’s prior reverse stock splits, all 48,100 outstanding Series A preferred shares are convertible into less than one common share. Upon any conversion (whether at the option of the Company or the holder), the holder is entitled to receive any accrued but unpaid dividends.

Except as otherwise required by law (or with respect to approval of certain actions), the Series A Preferred Stock shall have no voting rights. Upon any liquidation, dissolution or winding up of the Company, after payment or provision for payment of debts and other liabilities of the Company, the holders of Series A Preferred Stock shall be entitled to receive, pari passu with any distribution to the holders of common stock of the Company, an amount equal to $8.00 per share of Series A Preferred Stock plus any accrued and unpaid dividends.

As of June 30, 2024, there were 48,100 shares of Series A Preferred Stock outstanding and accrued and unpaid dividends of $538,586.

NOTE 14. SERIES Z PREFERRED STOCK

On June 20, 2024, the Company entered into a Securities Purchase Agreement (the “Purchase Agreement”) with Paul Warley, the Company’s Chief Executive Officer (the “Purchaser”) pursuant to which it issued and sold one (1) share (the “Share”) of the Company’s newly designated Series Z Preferred Stock, par value $0.0001 per share (the “Series Z Preferred Stock”), to such Purchaser for an aggregate purchase price of $1,000.

The Share of Series Z Preferred Stock is not convertible into, or exchangeable for, shares of any other class or series of stock or other securities of the Company. The Share of Series Z Preferred Stock has no rights with respect to any distribution of assets of the Company, including upon a liquidation, bankruptcy, reorganization, merger, acquisition, sale, dissolution or winding up of the Company, whether voluntarily or involuntarily. The holder of the Share of Series Z Preferred Stock will not be entitled to receive dividends of any kind.

The outstanding share of Series Z Preferred Stock shall be redeemed in whole, but not in part, at any time (i) if such redemption is ordered by the Board of Directors in its sole discretion or (ii) automatically upon the effectiveness of the amendment to the Certificate of Incorporation implementing a reverse stock split. Upon such redemption, the holder of the Series Z Preferred Stock will receive consideration of $1,000 in cash.

The Share of Series Z Preferred Stock will have 180,000,000 votes and will vote together with the outstanding shares of the Company’s common stock as a single class exclusively with respect to any proposal to amend the Company’s Certificate of Incorporation to effect a reverse stock split of the Company’s common stock. The Share of Series Z Preferred Stock will be voted, without action by the holder, on any such reverse stock split proposal in the same proportion as shares of common stock are voted on such proposal (excluding any common shares that are not voted). The Series Z Preferred Stock otherwise has no voting rights, except as may otherwise be required by the General Corporation Law of the State of Delaware.

The Series Z Preferred Stock is recorded as Accrued Expenses in the unaudited Condensed Balance Sheets.

NOTE 15. STOCKHOLDERS’ EQUITY (DEFICIT)

Common Stock

At June 30, 2024, the Company had 500 million shares of common stock, $0.0001 par value, authorized for issuance. Each share of common stock has the right to one vote. As of June 30, 2024, the Company had 98,825,076 shares of common stock outstanding. The Company has not declared or paid any dividends related to the common stock during the three or six months ended June 30, 2024 and 2023.

During the six months ended June 30, 2024, $400,000 million of convertible debt principal was converted into 618,384 shares of common stock $1,279,782 of conversions payable was converted into 1,793,404 shares of common stock. 350,000 shares of common stock was also issued to settle liabilities.

As part of the December 19, 2022 Securities Purchase Contract (the “Purchase Contract”) with two institutional investors (the “Investors”), the Company issued to the Investors certain common stock warrants (the “Warrants”). The Warrants have certain “full ratchet” anti-dilution adjustments that are triggered when the Company issues securities with a purchase or conversion, exercise or exchange price that is less than the exercise price of the Warrants then in effect at any time. Under the full ratchet anti-dilution adjustments, if the Company issues new securities at a price lower than the then applicable exercise price, (i) the exercise price is reduced to the lower new issue price and (ii) the number of warrant shares is proportionately increased. The Warrants have been previously adjusted following past issuances of Company securities. As of March 31, 2024, there were 5,596,232 Warrants exercisable at an exercise price of $1.765.

On March 6, 2024 and March 7, 2024, the Company entered into Warrant Repurchase Agreements (the “Repurchase Agreements”), with each of the Investors. Pursuant to the Repurchase Agreements, if the Company closes a new capital raising transaction with gross proceeds in excess of $5 million (“Qualified Financing”), the Company will repurchase the Warrants from the Investors for an aggregate purchase price of $3.6 million. Following the delivery of the purchase price to the Investors, the Investors will relinquish all rights, title and interest in the Warrants and assign the same to the Company, and the Warrants will be cancelled. On April 12, 2024, the Company entered into Amended and Restated Warrant Repurchase Agreements (the “Amendments”) with each of the Investors. Pursuant to the Amendments, on April 12, 2024, the Company and the Investors agreed to the following:

- First Repurchase. On April 12, 2024, the Investors agree to convey, assign and transfer 50% of the Warrants to the Company in exchange for the payment by the Company for an aggregate purchase price of $1.8 million.
- Second Repurchase. On or before April 18, 2024, the Investors agree to convey, assign and transfer all remaining Warrants to the Company for an aggregate purchase price of $1.8 million.

To extend the repurchase deadline, on April 12, 2024 the Company agreed to issue the Investors approximately 7.1 million warrants in aggregate at an exercise price of $0.14 per warrant. These warrants will be exercisable at any time, and from time to time, in whole or in part, commencing six months from the closing of the offering and expiring five and a half (5.5) years from the date of issue, and will be exercisable for cash only unless an effective registration statement is not available at the time of exercise, in which case the warrants could be exercised on a cashless basis. The Company recorded an expense of $743,459 as Warrant settlement expense on the unaudited Condensed Statement of Operations and Comprehensive Income. The expense represents the estimated fair value of the warrants at the issuance date and was determined using the Black Scholes model using the following inputs:

	Inputs
Expected stock price volatility	154.5%
Dividend yield	0%
Risk-free interest rate	4.75%
Expected life of the warrants (in years)	2.75

On April 9, 2024 the Company entered into a placement agency agreement (the “Placement Agent Agreement”) with Dawson James Securities Inc. (“Dawson James”) pursuant to which the Company engaged Dawson James as the placement agent for a registered public offering by the Company (the “Offering”), of up to $6 million of shares of common stock or, in lieu of common stock, one prefunded warrant to purchase a share of common stock on a best efforts basis.

The Company agreed to pay Dawson James a placement agent fee in cash equal to 8.00% of the gross proceeds from the sale of the shares of common stock; provided, however, that the placement agent fee shall equal 4% for investors that the Company directs to the Offering. The Company also agreed to reimburse Dawson James for all reasonable travel and other out-of-pocket expenses, including the reasonable fees of legal counsel, not to exceed $155,000.

On April 18, 2024, the Company, completed closings under the Offering of common stock. Aggregate gross proceeds from all closings under the offering total $5.09 million before deducting offering expenses. In the completed closings, the Company issued an aggregate of (i) 15,179,460 common shares and (ii) 21,162,277 Pre-Funded Warrants. The Pre-Funded Warrants are immediately exercisable at a price of $0.0001 per share of common stock and only expire when such Pre-Funded warrants are fully exercised.

As of June 30, 2024, all 21,162,277 of the Pre-Funded Warrants were exercised into common stock.

The net proceeds from the closings of the Offering were utilized to retire approximately $200,000 of cash payable and $3.6 million to repurchase and cancel a total of 5,596,232 outstanding common warrants with an exercise price of $1.765 per share that were both issued with our secured notes issued in December 2022. The repurchase of these warrants eliminated a substantial potential future issuance of common stock at a substantially reduced price. These warrants would have been adjusted in accordance with their terms to provide for the purchase of 70,554,495 shares of the Company’s common stock at an exercise price of $0.14 if they had not been repurchased by the Company.

On May 16, 2024, the Company entered into an At The Market Offering Agreement (the “ATM Agreement”) with H.C. Wainwright & Co., LLC, as sales agent (“Wainwright”), to sell shares of its common stock, par value $0.0001 per share (the “Shares”), having an aggregate sales price of up to $4,219,000, from time to time, through an “at the market offering” program under which Wainwright will act as sales agent. The sales, if any, of the Shares made under the ATM Agreement will be made by any method permitted by law deemed to be an “at the market offering” as defined in Rule 415 promulgated under the Securities Act of 1933, as amended (the “Securities Act”), including sales made directly on or through the Nasdaq Capital Market or on any other existing trading market for the Company’s common stock. The Company will pay Wainwright a commission rate equal to 3.0% of the aggregate gross proceeds from each sale of Common Stock and will also reimburse Wainwright for certain specified expenses in connection with entering into the ATM Agreement, including certain fees and out-of-pocket expenses of its legal counsel.

On May 23, 2024, the Company increased the amount available for sale under the ATM Agreement, up to an additional aggregate offering price of $4,344,000 and on May 30, 2024, the Company again increased the amount available for sale under the ATM Agreement by an additional aggregate offering price of $3,981,000.

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As of June 30, 2024, the Company sold 55,342,643 shares of common stock at an average price of $0.162 per share, resulting in aggregate gross proceeds of approximately $8.96 million. The Company anticipates that the at-the-market offering will continue throughout the next reporting period.

Preferred Stock

At June 30, 2024, the Company had 25 million shares of preferred stock, $0.0001 par value, authorized for issuance. Preferred stock may be issued in classes or series. Designations, powers, preferences, rights, qualifications, limitations and restrictions are determined by the Company's Board of Directors.

The following table summarizes the designations, shares authorized, and shares outstanding for the Company's Preferred Stock:

Preferred Stock Series Designation	Shares Authorized	Shares Outstanding
Series A	750,000	48,100
Series 1A	5,000	—
Series B-1	2,000	—
Series B-2	1,000	—
Series 1B	900	—
Series C	1,000	—
Series D	3,000	—
Series D-1	2,500	—
Series E	2,800	—
Series F	7,000	—
Series G	2,000	—
Series H	2,500	—
Series I	1,000	—
Series J	1,350	—
Series J-1	1,000	—
Series K	20,000	—
Series Z	1	1

Warrants

As of June 30, 2024, there are 11,877,142 outstanding warrants with exercise prices between $0.14 and $1,060 per share.

Series A Preferred Stock

Refer to Note 13 for information on Series A Preferred Stock.

Series Z Preferred Stock

Refer to Note 14 for information on Series Z Preferred Stock.

Series 1A, B-1, B-2, C, D, D-1, E, F, G, H, I, J, J-1, and K Preferred Stock

There were no transactions involving the Series 1A, B-1, B-2, C, D, D-1, E, F, G, H, I, J, J-1, or K during the three and six months ended June 30, 2024.

NOTE 16. SHARE-BASED COMPENSATION

In January 2024, the Company granted 459,000 shares of restricted stock units to employees and directors. One third of these shares vested on March 31, 2024. The remaining unvested shares will vest prorata on January 1, 2025 and January 1, 2026. The Company also granted members of our advisory board an aggregate of 20,000 shares of restricted stock units. The advisory shares originally vested prorata on January 1, 2025 and January 1, 2026; however, were amended to vest prorata on June 30, 2024 and January 1, 2025.

The Company had a total of 316,964 unvested units as of June 30, 2024 that are expected to vest in the future. Total unrecognized share-based compensation expense from the remaining unvested restricted stock as of June 30, 2024 was approximately $1,220,860 and is expected to be recognized over 1.75 years. The following table summarizes non-vested restricted stock and the related activity as of June 30, 2024:

	Shares	Weighted Average Grant Date Fair Value
Non-vested at January 1, 2024	1,867	$ 596.00
Granted	481,000	0.76
Vested	(163,903)	1.61
Forfeited	(2,000)	0.77
Non-vested at June 30, 2024	316,964	$ 5.06

The fair values of the respective vesting dates of RSUs were approximately $61,563 and $233,731 for the six months ended June 30, 2024 and 2023, respectively.

NOTE 17. COMMITMENTS AND CONTINGENCIES

On August 15, 2023, H.C. Wainwright & Co., LLC (“Wainwright”) filed an action against the Company in the New York State Supreme Court in New York County. The complaint alleges a breach by the Company of an investment banking engagement letter entered into in October 2021. The Wainwright engagement letter expired in April 2022 without any financing transaction having been completed. The complaint claims that Wainright is entitled, under a “tail provision”, to an 8% fee and 7% warrant coverage on the Company’s $15 million secured convertible note financing. The complaint seeks damages of $1.2 million, 2,169.5 common stock warrants with a per share exercise price of $605, and attorney fees. On May 15, 2024, the Company and Wainwright reached a settlement agreement. The settlement did not have a material impact on our financial statements.

The Company is subject to various legal proceedings, both asserted and unasserted, that arise in the ordinary course of business. The Company cannot predict the ultimate outcome of such legal proceedings or in certain instances provide reasonable ranges of potential losses. However, as of the date of this report, the Company believes that none of these claims will have a material adverse effect on its financial position or results of operations. In the event of unexpected subsequent developments and given the inherent unpredictability of these legal proceedings, there can be no assurance that the Company’s assessment of any claim will reflect the ultimate outcome, and an adverse outcome in certain matters could, from time to time, have a material adverse effect on the Company’s financial position or results of operations in particular quarterly or annual periods.

NOTE 18. SUBSEQUENT EVENTS

Subsequent to June 30, 2024, the Company sold 3,519,100 shares of common stock under the ATM Agreement at an average price of $0.113 per share, resulting in aggregate gross proceeds of approximately $399,300.

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 and our audited financial statements and related notes thereto included in our Annual Report on Form 10-K for the year ended December 31, 2023 which was filed with the SEC on February 21, 2024. 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. You should carefully read the “Risk Factors” section of this Quarterly Report and of our Annual Report on Form 10-K for the year ended December 31, 2023 to gain an understanding of the important factors that could cause actual results to differ materially from our forward-looking statements. Please also see the section entitled “Forward-Looking Statements.”

Overview

We target high-volume production and high-value specialty solar markets. These include agrivoltaics, space, aerospace and high-value niche manufacturing/construction sectors. This strategy enables us to fully leverage what we believe are the unique advantages of our technology, including flexibility, durability and attractive power to weight and power to area performance. It further enables us to offer unique, differentiated solutions in large markets with less competition, and more attractive pricing.

Specifically, we focus on commercializing our proprietary solar technology in two high-value PV verticals:

I. Aerospace: Space, Near-space and Fixed Wing UAV
II. Agrivoltaics

We believe the value proposition of Ascent’s proprietary solar technology not only aligns with the needs of customers in these verticals, but also overcomes many of the obstacles other solar technologies face in these unique markets. Ascent has the capability to design and develop finished products for end users in these areas as well as collaborate with strategic partners to design and develop custom integrated solutions for products like airships and fixed-wing UAVs. Ascent sees significant overlap in the needs of end users across some of these verticals and believes it can achieve economies of scale in sourcing, development, and production in commercializing products for these customers.

The integration of Ascent's solar modules into space, near space, and aeronautic vehicles with ultra-lightweight and flexible solar modules is an important market opportunity for the Company. Customers in this market have historically required a high level of durability, high voltage and conversion efficiency from solar module suppliers, and we believe our products are well suited to compete in this premium market.

For the six months ended June 30, 2024, we generated $33,343 of total revenue. As of June 30, 2024, we had an accumulated deficit of $488,462,005.

Due to the high durability enabled by the monolithic integration employed by our technology, the capability to customize modules into different form factors and what we believe is the industry leading light weight and flexibility provided by our modules, we believe that the potential applications for our products are extensive, including integrated solutions anywhere that may need power generation such as vehicles in space or in flight, or dual-use installations on agricultural land.

Commercialization and Manufacturing Strategy

We manufacture our products by affixing a thin CIGS layer to a flexible, plastic substrate using a large format, roll-to-roll process that permits us to fabricate our flexible PV modules in an integrated sequential operation. We use proprietary monolithic integration techniques which enable us to form complete PV modules with little to no back-end assembly cost of inter- cell connections. Traditional PV manufacturers assemble PV modules by bonding or soldering discrete PV cells together. This manufacturing step typically increases manufacturing costs and at times proves detrimental to the overall yield and reliability of the finished product. By reducing or eliminating this added step using our proprietary monolithic integration techniques, we believe we can achieve cost savings in, and increase the reliability of, our PV modules.

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 also plan to continue to take advantage of research and development contracts to fund a portion of this development.

Significant Trends, Uncertainties and Challenges

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

- Our operating history and lack of profitability;
- Our ability to develop demand for, and sales of, our products;
- Our ability to attract and retain qualified personnel to implement our business plan and corporate growth strategies;
- Our ability to develop sales, marketing and distribution capabilities;
- Our ability to successfully develop and maintain strategic relationships with key partners;
- The accuracy of our estimates and projections;
- Our ability to secure additional financing to fund our short-term and long-term financial needs;
- Our ability to maintain the listing of our common stock on the Nasdaq Capital Market;
- The commencement, or outcome, of legal proceedings against us, or by us, including ongoing litigation proceedings;
- Changes in our business plan or corporate strategies;
- The extent to which we are able to manage the growth of our operations effectively, both domestically and abroad, whether directly owned or indirectly through licenses;
- The supply, availability and price of equipment, components and raw materials, including the elements needed to produce our photovoltaic modules;
- Our ability to expand and protect the intellectual property portfolio that relates to our photovoltaic modules and processes;
- Our ability to maintain effective internal controls over financial reporting;
- Our ability to achieve projected operational performance and cost metrics; and
- General economic and business conditions, and in particular, conditions specific to the solar power industry.

Basis of Presentation: The accompanying unaudited condensed financial statements have been derived from the accounting records of Ascent Solar Technologies, Inc. as of June 30, 2024 and December 31, 2023, and the results of operations for the three and six months ended June 30, 2024 and 2023.

Table of Contents

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.

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, 2023. There have been no significant changes to our accounting policies as of June 30, 2024.

Results of Operations

Comparison of the Three Months Ended June 30, 2024 and 2023

	Three Months Ended June 30, 2024	Three Months Ended June 30, 2023	$ Change
Revenues			
Products	$ 27,743	$ 86,385	$ (58,642)
Milestone and engineering	-	14,916	(14,916)
Total Revenues	27,743	101,301	(73,558)
Costs and Expenses			
Cost of Revenue	61,524	666,269	(604,745)
Research, development and manufacturing operations	506,001	822,321	(316,320)
Selling, general and administrative	1,611,438	1,178,832	432,606
Share-based compensation	185,702	560,861	(375,159)
Depreciation and amortization	18,651	24,443	(5,792)
Impairment loss	-	-	-
Total Costs and Expenses	2,383,316	3,252,726	(869,410)
Loss From Operations	(2,355,573)	(3,151,425)	795,852
Other Income/(Expense)			
Other income/(expense), net	(37,988)	-	(37,988)
Warrant settlement (Note 15)	(743,459)	-	(743,459)
Interest Expense	(307,081)	(761,877)	454,796
Total Other Income/(Expense)	(1,088,528)	(761,877)	(326,651)
Income/(Loss) on Equity Method Investments	(1,726)	(170)	(1,556)
Net (Loss)/Income	$ (3,445,827)	$ (3,913,472)	$ 467,645

Total Revenues. Our total revenues decreased by $73,558, or 73%, for the three months ended June 30, 2024 when compared to the same period in 2023. This is primarily due to a large customer order and engineering revenue in the prior period that was not repeated in the current period.

Cost of revenue. Cost of revenues is primarily comprised of repair and maintenance, material costs, and direct labor and overhead expenses. Our Cost of revenues decreased by $604,745, or 91%, for the three months ended June 30, 2024 when compared to the same period in 2023. This decrease is primarily due to a decrease in manufacturing activities as the Company continued to focused on product and technology improvements in the current period.

Research, development and manufacturing operations. Research, development and manufacturing operations costs include costs incurred for product development, pre-production and production activities in our manufacturing facility. It also includes costs related to technology development. Research, development and manufacturing operations costs decreased by $316,320, or 38%, for the three months ended June 30, 2024 when compared to the same period in 2023. This is primarily due to a decrease in preproduction and manufacturing operations cost as the Company continued to focused on product and technology improvements in the current period.

Selling, general and administrative. Selling, general and administrative expenses increased by $432,606, or 37%, for the three months ended June 30, 2024 when compared to the same period in 2023. The increase in costs is due primarily to increased employee expenses. The increase is also due to the annual shareholders' meeting costs and other administrative costs.

Share-based compensation. Share-based compensation expense decreased by $375,159 or 67% for the three months ended June 30, 2024 when compared to the same period in 2023. The decrease is due to the termination of our former CEO in April 2023. This is partially offset with the Company's RSU grant to employees, directors, and advisory board in 2024.

Other Income/Expense. Other expense was $1,088,528 for the three months ended June 30, 2024, compared to other expense of $761,877 for the same period in 2023, an increase of $326,651. The increase is due primarily to the warrant settlement expense incurred in the current period and interest on the bridge loans partially offset by a decrease in interest expense resulting from the conversions and payoff of the December 2022 convertible debt.

Net Loss. Our Net Loss decreased by $467,645, or 12%, for the three months ended June 30, 2024 compared to the same period in 2023 due primarily to the items mentioned above.

Comparison of the Six Months Ended June 30, 2024 and 2023

	Six Months Ended June 30, 2024	Six Months Ended June 30, 2023	$ Change
Revenues			
Product Revenue	$ 33,343	$ 185,610	$ (152,267)
Milestone and engineering	-	39,916	(39,916)
Total Revenues	33,343	225,526	(192,183)
Costs and Expenses			
Cost of Revenue	70,912	1,128,064	(1,057,152)
Research, development and manufacturing operations	1,113,231	2,488,016	(1,374,785)
Selling, general and administrative	2,671,489	2,770,652	(99,163)
Share-based compensation	444,928	1,965,311	(1,520,383)
Depreciation and amortization	39,408	50,224	(10,816)
Impairment loss	524,481	-	524,481
Total Costs and Expenses	4,864,449	8,402,267	(3,537,818)
Loss From Operations	(4,831,106)	(8,176,741)	3,345,635
Other Income/(Expense)			
Other Income/(Expense), net	26,333	10,000	16,333
Warrant settlement	(743,459)	-	(743,459)
Interest Expense	(433,635)	(1,829,913)	1,396,278
Total Other Income/(Expense)	(1,150,761)	(1,819,913)	669,152
Income/(Loss) on Equity Method Investments	(1,702)	(170)	(1,532)
Net (Loss)/Income	$ (5,983,569)	$ (9,996,824)	$ 4,013,255

Total Revenues. Our total revenues decreased by $192,183, or 85%, for the six months ended June 30, 2024 when compared to the same period in 2023. This is primarily due to a large customer order and engineering revenue in the prior period that was not repeated in the current period.

Cost of revenue. Cost of revenues is primarily comprised of repair and maintenance, material costs, and direct labor and overhead expenses. Our Cost of revenues decreased by $(1,057,152), or 94%, for the six months ended June 30, 2024 when compared to the same period in 2023. This decrease is primarily due to a decrease in manufacturing activities as the Company continued to focused on product and technology improvements in the current period.

Research, development and manufacturing operations. Research, development and manufacturing operations costs include costs incurred for product development, pre-production and production activities in our manufacturing facility. Research, development and manufacturing operations costs also include costs related to technology development. Research, development and manufacturing operations costs decreased by $1,374,785, or 55%, for the six months ended June 30, 2024 when compared to the same period in 2023. This is primarily due to a decrease in preproduction and manufacturing operations cost as the Company continued to focused on product and technology improvements in the current period.

Selling, general and administrative. Selling, general and administrative expenses decreased by $99,163, or 4% for the six months ended June 30, 2024 when compared to the same period in 2023. This decrease is primarily due to lower personnel and administrative costs incurred during the first quarter in the current period when compared to the prior period partially offset by higher personnel and administrative costs incurred during the second quarter in the current period when compared to the prior period.

Share-based compensation. Share-based compensation expense decreased by $1,520,383 or 77% for the six months ended June 30, 2024 when compared to the same period in 2023. The decrease is due to the termination of our former CEO in April 2023. This is partially offset with the Company's RSU grant to employees, directors, and advisory board in 2024.

Other Income/Expense. Other expense was $1,150,761 for the six months ended June 30, 2024, compared to other expense of $1,819,913 for the same period in 2023, a decrease of $669,152. The decrease is due primarily to a decrease in interest expense resulting from the conversions and payoff of the December 2022 convertible debt partially offset by the interest on the bridge loans and the warrant settlement expense.

Net Loss. Our Net Loss decreased by $4,013,255, or 40%, for the six months ended June 30, 2024 compared to the same period in 2023 due primarily to the items mentioned above.

Liquidity and Capital Resources

The Company currently has limited PV production at its manufacturing facility. The Company does not expect that sales revenue and cash flows will be sufficient to support operations and cash requirements until it has fully restarted its production at industrial scale and achieved desired improvements to its PV products. During the six months ended June 30, 2024 the Company used $4,846,465 in cash for operations.

Additionally, projected total revenues are not anticipated to result in a positive cash flow position for the year overall and, as of June 30, 2024, while the Company has working capital of $2,197,842., Management does not believe cash liquidity is sufficient for the next twelve months and will require additional financing.

The Company continues activities related to securing additional financing through strategic or financial investors, but there is no assurance the Company will be able to raise additional capital on acceptable terms or at all. If the Company’s revenues do not increase rapidly, and/or additional financing is not obtained, the Company will be required to significantly curtail operations to reduce costs and/or sell assets. Such actions would likely have an adverse impact on the Company's future operations.

As a result of the Company’s recurring losses from operations, and the need for additional financing to fund its operating and capital requirements, there is uncertainty regarding the Company’s ability to maintain liquidity sufficient to operate its business effectively, which raises doubt as to the Company’s ability to continue as a going concern.

Management cannot provide any assurances that the Company will be successful in accomplishing any of its plans. These condensed financial statements do not include any adjustments that might be necessary should the Company be unable to continue as a going concern.

Statements of Cash Flows Comparison of the Six Months Ended June 30, 2024 and 2023

For the six months ended June 30, 2024, our cash used in operations was $4,846,465 compared to $6,577,826 for the six months ended June 30, 2023, a decrease of $1,731,361. This decrease is due primarily to decreases in manufacturing activities as the Company continues to focus on product and technology improvements. For the six months ended June 30, 2024, cash used in investing activities was $0 compared to $3,849,542 used in investing activities for the six months ended June 30, 2023. This change was primarily the result of the asset acquisition in Zurich, Switzerland in the prior period. During the six months ended June 30, 2024, net cash used in operations of $4,846,465 were primarily funded from 2023 and 2024 financing agreements.

Off Balance Sheet Transactions

As of June 30, 2024, we did not have any off-balance sheet arrangements as defined in Item 303(a)(4)(ii) of Regulation S-K.

Smaller Reporting Company Status

We are a “smaller reporting company” meaning that the market value of our stock held by non-affiliates is less than $700 million and our annual revenue was less than $100 million during the most recently completed fiscal year. We may continue to be a smaller reporting company if either (i) the market value of our stock held by non-affiliates is less than $250 million or (ii) our annual revenue was less than $100 million during the most recently completed fiscal year and the market value of our stock held by non-affiliates is less than $700 million. As a smaller reporting company, we may rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and smaller reporting companies have reduced disclosure obligations regarding executive compensation.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Foreign Currency Exchange Risk

We hold no significant funds and have no significant future obligations denominated in foreign currencies as of June 30, 2024.

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.

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, 2024, our cash equivalents consisted only of operating accounts held with financial institutions. From time to time, we may hold restricted funds, 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 a change in interest rates will have a significant impact on our financial position, results of operations, or cash flows.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures 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 rules and forms. Our disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed in our reports filed under the Exchange Act is accumulated and communicated to management as appropriate to allow timely decisions regarding required disclosures. Our management 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, 2024. Based on this evaluation, our management concluded the design and operation of our disclosure controls and procedures were effective as of June 30, 2024.

Changes in Internal Control Over Financial Reporting

There were no changes in internal control over financial reporting during the six months ended June 30, 2024 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

From time to time, we may become involved in legal proceedings arising in the ordinary course of our business. Except as discussed in Note 17 to the financial statements, there were no events required to be reported under Item 1 for the six months ended June 30, 2024, within Part II, Item 1 of this report.

Item 1A. Risk Factors

In addition to the information set forth in this Form 10-Q, you should carefully consider the risk factors disclosed under the heading "Risk Factors" in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2023. Except as set forth below, there have been no material changes to our risk factors from those included in our Annual Report on Form 10-K for the year ended December 31, 2023.

We may not be able to maintain our current listing for our common stock on the Nasdaq Capital Market. Failure to maintain the listing of our common stock on Nasdaq could adversely affect the liquidity of our common stock.

Our inability to maintain our current listing on Nasdaq may limit the liquidity of our stock, increase its volatility, and hinder our ability to raise capital. If our common stock is delisted by Nasdaq, our common stock may be eligible for quotation on an over-the-counter quotation system or on the pink sheets. Upon any such delisting, our common stock would become subject to the regulations of the SEC relating to the market for penny stocks. A penny stock is any equity security not traded on a national securities exchange that has a market price of less than $5.00 per share. The regulations applicable to penny stocks may severely affect the market liquidity for our common stock and could limit the ability of shareholders to sell securities in the secondary market. In such a case, an investor may find it more difficult to dispose of or obtain accurate quotations as to the market value of our common stock, and there can be no assurance that our common stock will be eligible for trading or quotation on any alternative exchanges or markets.

Delisting from Nasdaq could adversely affect our ability to raise additional financing through public or private sales of equity securities, would significantly affect the ability of investors to trade our securities and would negatively affect the value and liquidity of our common stock. Delisting could also have other negative results, including the potential loss of confidence by employees, the loss of institutional investor interest and fewer business development opportunities.

Nasdaq Listing Status

Nasdaq Bid Price Notice

On December 11, 2023, the Company received a written notice (the "Notice") from the Listing Qualifications Department of The Nasdaq Stock Market ("Nasdaq") indicating that the Company is not in compliance with the $1.00 Minimum Bid Price requirement set forth in Nasdaq Listing Rule 5550(a)(2) for continued listing on The Nasdaq Capital Market (the "Bid Price Requirement").

The Notice does not result in the immediate delisting of the Company's common stock from The Nasdaq Capital Market.

The Nasdaq Listing Rules require listed securities to maintain a minimum bid price of $1.00 per share and, based upon the closing bid price of the Company's common stock for the 30 consecutive business days for the period October 27 through December 8, 2023, the Company no longer meets this requirement.

The Notice indicated that the Company will be provided 180 calendar days (or June 10, 2024) in which to regain compliance. If at any time during this 180 calendar day period the bid price of the Company's common stock closes at or above $1.00 per share for a minimum of ten consecutive business days, the Nasdaq staff (the "Staff") will provide the Company with a written confirmation of compliance and the matter will be closed.

Alternatively, if the Company fails to regain compliance with Rule 5550(a)(2) prior to the expiration of the initial 180 calendar day period, the Company may be eligible for an additional 180 calendar day compliance period, provided (i) it meets the continued listing requirement for market value of publicly held shares and all other applicable requirements for initial listing on The Nasdaq Capital Market (except for the Bid Price Requirement) and (ii) it provides written notice to Nasdaq of its intention to cure this deficiency during the second compliance period by effecting a reverse stock split, if necessary. In the event the Company does not regain compliance with Rule 5550(a)(2) prior to the expiration of the initial 180 calendar day period, and if it appears to the Staff that the Company will not be able to cure the deficiency, or if the Company is not otherwise eligible, the Staff will provide the Company with written notification that its securities are subject to delisting from The Nasdaq Capital Market. At that time, the Company may appeal the delisting determination to a Hearings Panel.

The Company did not evidence compliance with the Bid Price Requirement by June 10, 2024 and was not eligible for a second grace period under the Nasdaq Listing Rules. Accordingly, on June 11, 2024, the Company received formal notice from Nasdaq that the deficiency could serve as an additional basis for delisting.

At a hearing before the Nasdaq Hearings Panel on May 9, 2024, the Company addressed its plan to evidence compliance with both (i) the Nasdaq stockholders equity continued listing requirement (the "Equity Requirement"), and (ii) the Bid Price Requirement.

By decision dated June 5, 2024, the Panel granted the Company's request for continued listing on Nasdaq subject to the Company demonstrating compliance with all applicable criteria for continued listing on The Nasdaq Capital Market by August 22, 2024.

The Company intends to monitor the closing bid price of its common stock and is considering its options to regain compliance with the Bid Price Requirement on or before August 22, 2024. There are no assurances that the Company will be able to regain compliance with the Bid Price Requirement.

Nasdaq Stockholder Equity Requirement

Nasdaq Listing Rule 5550(b)(1) requires companies listed on Nasdaq to maintain a minimum of $2,500,000 in stockholders' equity for continued listing (the "Equity Rule"). On March 5, 2024, the Company received notice from the Staff stating that the Company is not in compliance with the Equity Rule, as, the Company reported stockholders' equity of $(1,526,611) in its Form 10-K for the year ended December 31, 2023.

As a result, the Staff determined to delist the Company's Common Stock from Nasdaq, unless the Company timely requested an appeal of the Staff's determination to a Hearings Panel (the "Panel"), pursuant to the procedures set forth in the Nasdaq Listing Rule 5800 Series.

In our quarterly report on Form 10-Q for the period ended March 31, 2024, the Company reported stockholders' equity of $(2,550,139).

The Company had a hearing on May 9, 2024 before the Panel to appeal the delisting notice and to address compliance with the Equity Rule. By decision dated June 5, 2024, the Panel granted the Company's request for continued listing on Nasdaq subject to the Company demonstrating compliance with the Equity Rule with the filing of this Form 10-Q. In our quarterly report on Form 10-Q for the period ended June 30, 2024, the Company reported stockholders' equity of $4,152,680.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Not applicable.

Issuer Purchases of Equity Securities

We did not repurchase any of our equity securities during the six months ended June 30, 2024.

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

Rule 10b5-1 Sales Plans

Our policy governing transactions in our securities by directors, officers, and employees permits our officers, directors, and certain other persons to enter into trading plans complying with Rule 10b5-1 under the Exchange Act. Generally, under these trading plans, the individual relinquishes control over the transactions once the trading plan is put into place and can only put such plans into place while the individual is not in possession of material non-public information. Accordingly, sales under these plans may occur at any time, including possibly before, simultaneously with, or immediately after significant events involving our company.

During the six months ended June 30, 2024, none of our directors or executive officers had a Rule 10b5-1 plan in effect.

Item 6. Exhibits

The exhibits listed on the accompanying Index to Exhibits on this Form 10-Q are filed or incorporated into this Form 10-Q by reference.

EXHIBIT INDEX

Exhibit No.	Description
1.1	2024 Placement Agency Agreement (incorporated by reference to Exhibit 1.1 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2024)
3.1	Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.2 to our Registration Statement on Form SB-2 filed on January 23, 2006 (Reg. No. 333-131216))
3.2	Certificate of Amendment to the Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2011)
3.3	Certificate of Amendment to the Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed February 11, 2014)
3.4	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Company, dated August 26, 2014. (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed September 2, 2014)
3.5	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Company, dated October 27, 2014 (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K dated October 28, 2014)
3.6	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Company, dated December 22, 2014. (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K dated December 23, 2014)
3.7	Second Amended and Restated Bylaws (incorporated by reference to Exhibit 3.2 to our Current Report on Form 8-K filed on February 17, 2009)
3.8	First Amendment to Second Amended and Restated Bylaws (incorporated by reference to Exhibit 3.3 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2009)
3.9	Second Amendment to Second Amended and Restated Bylaws (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed January 25, 2013)
3.10	Third Amendment to Second Amended and Restated Bylaws (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed December 18, 2015)
3.11	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Company, dated May 26, 2016 (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed June 2, 2016)
3.12	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Company, dated September 15, 2016 (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed September 16, 2016)
3.13	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Company, dated March 16, 2017 (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed March 17, 2017)
3.14	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Company, dated July 19, 2018 (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed July 23, 2018)
3.15	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Company, dated September 23, 2021 (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed September 24, 2021)

3.16	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Company, dated January 27, 2022 (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed February 2, 2022)
3.17	Form of Series 1B Preferred Stock Certificate of Designation (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed on June 30, 2023)
3.18	Amendment to the Series 1B Preferred Stock Certificate of Designation dated July 25, 2023 (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed on July 31, 2023)
3.19	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Company, dated September 8, 2023 (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed on September 15, 2023).
3.20	Certificate of Designation of Series Z Preferred Stock dated June 20, 2024 (incorporated by reference to Exhibit 3.1 to our Current Reprot on Form 8-K filed on June 21, 2024)
4.1	Form of Common Stock Certificate (incorporated by reference to Exhibit 4.1 to our Registration Statement on Form SB-2/A filed on June 6, 2006 (Reg. No. 333-131216))
4.2	Certificate of Designations of Series A Preferred Stock (filed as Exhibit 4.2 to our Registration Statement on Form S-3 filed July 1, 2013 (Reg. No. 333-189739))
4.3	Description of Securities (incorporated by reference to Exhibit 4.3 to our Annual Report on Form 10-K filed May 13, 2021)
4.4	Form of 2023 Common Warrant (incorporated by reference to Exhibit 4.4 filed with Amendment No. 3 to the Company's Registration on Form S-1 (File no. 333-274231))
4.5	Form of 2023 Prefunded Warrant (incorporated by reference to Exhibit 4.6 filed with Amendment No. 3 to the Company's Registration on Form S-1 (File no. 333-274231))
4.6	Form of 2023 Placement Agent Warrant (incorporated by reference to Exhibit 4.5 filed with Amendment No. 3 to the Company's Registration on Form S-1 (File no. 333-274231))
4.7	Form of 2023 Common Warrant Agency Agreement (incorporated by reference to Exhibit 4.7 filed with Amendment No. 3 to the Company's Registration on Form S-1 (File no. 333-274231))
4.8	Form of 2023 Prefunded Warrant Agency Agreement (incorporated by reference to Exhibit 4.8 filed with Amendment No. 3 to the Company's Registration on Form S-1 (File no. 333-274231))
4.9	Form of 2023 Securities Purchase Agreement (incorporated by reference to Exhibit 4.9 filed with Amendment No. 3 to the Company's Registration on Form S-1 (File no. 333-274231))
4.10	Form of 2024 Placement Agent's Warrant (incorporated by reference to Exhibit 4.4 to our Registration Statement on Form S-1 (File no. 333-277070) Amendment No. 3 filed on April 9, 2024).
4.11	Form of 2024 Pre-Funded Warrant (incorporated by reference to Exhibit 4.6 to our Registration Statement on Form S-1 (File no. 333-277070) Amendment No. 1 filed on February 23, 2024)
4.12	Form of 2024 Pre-Funded Warrant Agency Agreement (incorporated by reference to Exhibit 4.8 filed with Amendment No. 1 to the Company's Registration on Form S-1 (File no. 333-277070) filed on February 23, 2024)
4.13	Form of 2024 Common Stock Warrants issued to extend the Warrant Repurchase Agreements (incorporated by reference to Exhibit 4.13 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2024)
10.1 [CTR]	Securities Purchase Agreement, dated January 17, 2006, between the Company and ITN Energy Systems, Inc. (incorporated by reference to Exhibit 10.1 to our Registration Statement on Form SB-2 filed on January 23, 2006 (Reg. No. 333-131216))
10.2 [CTR]	Invention and Trade Secret Assignment Agreement, dated January 17, 2006, between the Company and ITN Energy Systems, Inc. (incorporated by reference to Exhibit 10.2 to our Registration Statement on Form SB-2 filed on January 23, 2006 (Reg. No. 333-131216))

10.3	Patent Application Assignment Agreement, dated January 17, 2006, between the Company and ITN Energy Systems, Inc. (incorporated by reference to Exhibit 10.3 to our Registration Statement on Form SB-2 filed on January 23, 2006 (Reg. No. 333-131216))
10.4 CTR	License Agreement, dated January 17, 2006, between the Company and ITN Energy Systems, Inc. (incorporated by reference to Exhibit 10.4 to our Registration Statement on Form SB-2 filed on January 23, 2006 (Reg. No. 333-131216))
10.5	Letter Agreement, dated November 23, 2005, among the Company, ITN Energy Systems, Inc. and the University of Delaware (incorporated by reference to Exhibit 10.16 to our Registration Statement on Form SB-2/A filed on May 26, 2006 (Reg. No. 333-131216))
10.6 CTR	License Agreement, dated November 21, 2006, between the Company and UD Technology Corporation (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on November 29, 2006)
10.7	Novation Agreement, dated January 1, 2007, among the Company, ITN Energy Systems, Inc. and the United States Government (incorporated by reference to Exhibit 10.23 to our Annual Report on Form 10-KSB for the year ended December 31, 2006)
10.8†	Executive Employment Agreement, dated April 4, 2014, between the Company and Victor Lee (filed as Exhibit 10.1 to our Current Report on Form 8-K filed on April 9, 2014)
10.9†	Seventh Amended and Restated 2005 Stock Option Plan (incorporated by reference to Annex B of our definitive proxy statement dated April 22, 2016)
10.10†	Seventh Amended and Restated 2008 Restricted Stock Plan Stock Option Plan Plan (incorporated by reference to Annex A of our definitive proxy statement dated April 22, 2016)
10.11+	Industrial Lease for 12300 Grant Street, Thornton, Colorado dated September 21, 2020 (incorporated by reference to Exhibit 10.50 to our Annual Report on Form 10-K filed January 29, 2021)
10.12+	Long-Term Supply and Joint Development Agreement dated September 15, 2021 (incorporated by reference to Exhibit 10.2 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2021)
10.13	Fleur Capital Unsecured Convertible Promissory Note dated January 3, 2022 (incorporated by reference to Exhibit 10.13 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2022)
10.14	Nanyang Unsecured Convertible Promissory Note dated January 21, 2022 (incorporated by reference to Exhibit 10.14 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2022)
10.15	Bridge Promissory Note dated August 3, 2022 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on August 8, 2022)
10.16	Securities Purchase Agreement dated August 8, 2022 (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed on August 8, 2022)
10.17	Form of Common Stock Warrant Related to Securities Purchase Agreement dated August 8, 2022 (incorporated by reference to Exhibit 10.3 to our Current Report on Form 8-K filed on August 8, 2022)
10.18	Common Stock Warrant dated August 19, 2022 (incorporated by reference to Exhibit 10.3 to our Current Report on Form 8-K filed on August 19, 2022)
10.19†	Separation Agreement and Release of Claims between the Company and Victor Lee dated September 21, 2022 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on September 22, 2022)
10.20† CTR	Employment Agreement between the Company and Jeffrey Max dated September 21, 2022 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on September 27, 2022)
10.21†	Separation Agreement between the Company and Michael Gilbreth effective December 11, 2022 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on December 12, 2022)
10.22†	Employment Agreement between the Company and Paul Warley dated December 12, 2022 (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed on December 12, 2022)

10.23	Securities Purchase Contract, dated as of December 19, 2022 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on December 20, 2022)
10.24	Form of Security Agreement, dated as of December 19, 2022 (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed on December 20, 2022)
10.25	Form of Registered Advance Note 2022 (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed on December 20, 2022)
10.26	Form of Private Placement Advance Note (incorporated by reference to Exhibit 4.2 to our Current Report on Form 8-K filed on December 20, 2022)
10.27	Form of 2022 Common Stock Warrant (incorporated by reference to Exhibit 4.3 to our Current Report on Form 8-K filed on December 20, 2022)
10.28	Waiver and Amendment Agreement, dated as of March 29, 2023 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on March 29, 2023)
10.29	Amendment to Waiver and Amendment Agreement (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on April 13, 2023)
10.30	Common Stock Securities Purchase Agreement dated April 14, 2023 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on April 20, 2023)
10.31	Asset Purchase Agreement, dated as of April 17, 2023 (incorporated by reference to Exhibit 2.1 to our Current Report on Form 8-K filed on April 21, 2023)
10.32	Transition Services Agreement, dated as of April 17, 2023 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on April 21, 2023)
10.33	Sublease Agreement, dated as of April 17, 2023 (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed on April 21, 2023)
10.34	Technology License Agreement, dated as of April 17, 2023 (incorporated by reference to Exhibit 10.3 to our Current Report on Form 8-K filed on April 21, 2023)
10.35	Letter Agreement, dated as of April 20, 2023 (incorporated by reference to Exhibit 10.4 to our Current Report on Form 8-K filed on April 21, 2023)
10.36†	CEO Employment Agreement between the Company and Paul Warley dated as of May 1, 2023
10.37	Waiver and Amendment Agreement, dated as of May 25, 2023 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on May 26, 2023)
10.38	Form of Series 1B Preferred Stock Purchase Agreement dated June 29, 2023 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on June 30, 2023)
10.39	2024 Placement Agent Agreement (incorporated by reference to Exhibit 1.1 filed with Amendment No. 3 to the Company's Registration on Form S-1 (File no. 333-274231))
10.40†	Employment Agreement between the Company and Bobby Gulati dated as of October 19, 2023 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on October 23, 2023)
10.41†	Employment Agreement between the Company and Jin Jo dated as of October 19, 2023 (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed on October 23, 2023)
10.42†	Ascent Solar 2023 Equity Incentive Plan (as amended in May 2024 (incorporated by reference to Annex A of our definitive proxy statement filed June 20, 2024)
10.43	Warrant Repurchase Agreement dated March 6, 2024 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on March 7, 2024)
10.44	Warrant Repurchase Agreement dated March 7, 2024 (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed on March 7, 2024)
10.45	Cedar Loan Agreement dated April 17, 2024 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on April 18, 2024)

10.46	At The Market Offering Agreement, dated May 16, 2024, by and between Ascent Solar Technologies, Inc. and H.C. Wainwright & Co., LLC (incorporated by reference to Exhibit 10.1 to our Current report on Form 8-K filed on May 16, 2024)
10.47	Securities Purchase Agreement dated June 20, 2024 between Ascent Solar Technologies, Inc. and Paul Warley (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on June 21, 2024)
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	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)
*	Filed herewith
CTR	Portions of this exhibit have been omitted pursuant to a request for confidential treatment.
†	Denotes management contract or compensatory plan or arrangement.
+	Certain portions of the exhibit have been omitted pursuant to Rule 601(b)(10) of Regulation S-K. The omitted information is (i) not material and (ii) would likely cause competitive harm to the Company if publicly disclosed.

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 6th day of August, 2024.

August 6, 2024	By:	/s/ PAUL WARLEY Paul Warley Chief Executive Officer (Principal Executive Officer)
August 6, 2024	By:	/s/ JIN JO Jin Jo Chief Financial Officer (Principal Financial and Accounting Officer)

Exhibit 31.1

ASCENT SOLAR TECHNOLOGIES, INC.

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Paul Warley, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Ascent Solar Technologies, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

August 6, 2024

/s/ PAUL WARLEY
Paul Warley
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

ASCENT SOLAR TECHNOLOGIES, INC.

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Jin Jo, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Ascent Solar Technologies, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

August 6, 2024

By: /s/ JIN JO

Jin Jo
Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 32.1

ASCENT SOLAR TECHNOLOGIES, INC.

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350 AS ADOPTED PURSUANT
TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Ascent Solar Technologies, Inc. (the “Company”) on Form 10-Q for the period ended June 30, 2024 as filed with the Securities and Exchange Commission on the date therein specified (the “Report”), I, Paul Warley, Chief Executive Officer of the Company, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

August 6, 2024

/s/ PAUL WARLEY

Paul Warley
Chief Executive Officer
(Principal Executive Officer)

Exhibit 32.2

ASCENT SOLAR TECHNOLOGIES, INC.

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350 AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Ascent Solar Technologies, Inc. (the “Company”) on Form 10-Q for the period ended June 30, 2024 as filed with the Securities and Exchange Commission on the date therein specified (the “Report”), I, Jin Jo, Chief Financial Officer of the Company, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1.The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2.The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

August 6, 2024

By: /s/ JIN JO

Jin Jo
Chief Financial Officer
(Principal Financial and Accounting Officer)