Ascent Solar Technologies, Inc.
Form 10-Q
November 19, 2018
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

(Mark One)
x QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended September 30, 2018
or
o 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	20-3672603
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
12300 Grant Street, Thornton, CO	80241
(Address of principal executive offices)	(Zip Code)

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

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 x No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). x Yes o 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	o	Accelerated filer	o
Non-accelerated filer	x	Smaller reporting company	x
		Emerging growth company	o

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.o

As of November 16, 2018, there were 42,523,847 shares of our common stock issued and outstanding.

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Quarterly Report on Form 10-Q
Quarterly Period Ended September 30, 2018
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PART I. FINANCIAL INFORMATION

Item 1. Condensed Consolidated Financial Statements

ASCENT SOLAR TECHNOLOGIES, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS

	September 30, 2018 (Unaudited)	December 31, 2017
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 57,830	$ 89,618
Trade receivables, net of allowance for doubtful accounts of $45,359 and $48,201, respectively	31,866	6,658
Inventories, net	969,095	1,037,854
Prepaid expenses and other current assets	270,069	494,425
Total current assets	1,328,860	1,628,555
Property, Plant and Equipment	36,621,187	36,645,862
Less accumulated depreciation and amortization	(32,158,632)	(32,013,686)
	4,462,555	4,632,176
Other Assets:		
Patents, net of accumulated amortization of $518,471 and $430,071, respectively	1,306,041	1,470,796
Other non-current assets	35,000	49,813
	1,341,041	1,520,609
Total Assets	$ 7,132,456	$ 7,781,340
LIABILITIES AND STOCKHOLDERS' DEFICIT		
Current Liabilities:		
Accounts payable	$ 2,200,680	$ 1,600,455
Related party payables	200,000	202,827
Accrued expenses	2,744,353	1,623,748
Notes payable	1,516,530	1,570,231
Current portion of long-term debt	315,635	343,395
Current portion of secured notes, net of discount of $1,769,390 and $1,934,304, respectively	2,629,322	253,590
Promissory notes, net of discount of $67,083 and $20,626, respectively	1,047,354	948,811
Convertible notes, net of discount and cash premium of $1,517,662 and $1,238,241, respectively	1,594,918	1,362,592
Embedded derivative liabilities	4,583,724	6,406,833
Total current liabilities	16,832,516	14,312,482
Long-term debt, net of current portion	5,118,407	5,118,424
Long-term secured notes, net of current portion, and net of discount of $995,249 and $1,684,267, respectively	87,621	685,066
Accrued Warranty Liability	48,001	57,703
Commitments and Contingencies		
Mezzanine Equity:		

Series K preferred stock: 20,000 shares authorized; zero and 2,810 issued and outstanding, respectively	—	2,810,000
Stockholders' Deficit:		
Series A preferred stock, $.0001 par value; 750,000 shares authorized; 60,756 shares issued and outstanding, respectively ($807,306 and $761,864 Liquidation Preference)	6	6
Common stock, $0.0001 par value, 20,000,000,000 shares authorized; 29,538,241 and 9,606,598 shares issued and outstanding, respectively	1,900,496	960,660
Additional paid in capital	393,221,378	386,332,475
Accumulated deficit	(410,075,969)	(402,495,476)
Total stockholders' deficit	(14,954,089)	(15,202,335)
Total Liabilities, Mezzanine Equity and Stockholders' Deficit	$ 7,132,456	$ 7,781,340

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

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ASCENT SOLAR TECHNOLOGIES, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited)

	For the Three Months Ended September 30,		For the nine months ended September 30,	
	2018	2017	2018	2017
Revenues	$ 32,001	$ 242,055	$512,473	$547,792
Costs and Expenses:				
Cost of revenues (exclusive of depreciation shown below)	—	535,258	503,609	2,323,125
Research, development and manufacturing operations (exclusive of depreciation shown below)	516,782	1,311,943	2,389,863	3,829,919
Inventory impairment costs	—	—	—	363,758
Selling, general and administrative (exclusive of depreciation shown below)	607,784	1,341,852	2,243,925	4,511,940
Depreciation and amortization	91,104	310,207	289,324	1,012,185
Total Costs and Expenses	1,215,670	3,499,260	5,426,721	12,040,927
Loss from Operations	(1,183,669)	(3,257,205)	(4,914,248)	(11,493,135)
Other Income/(Expense)				
Other Income/(Expense), net	13,144	(15,053)	13,144	564,092
Interest expense	(1,730,717)	(898,915)	(5,279,259)	(5,137,975)
Warrant expense	—	(335,739)	—	(335,739)
Change in fair value of derivatives and gain/(loss) on extinguishment of liabilities, net	3,284,736	2,151,478	2,599,870	3,753,466
Total Other Income/(Expense)	1,567,163	901,771	(2,666,245)	(1,156,156)
Net Income/(Loss)	$ 383,494	$ (2,355,434)	$(7,580,493)	$(12,649,291)
Net Income/(Loss) Per Share (Basic)	$ 0.020	$ (0.292)	$(0.450)	$(2.632)
Net Income/(Loss) Per Share (Diluted)	0.001	$ (0.292)	$(0.450)	$(2.632)
Weighted Average Common Shares Outstanding (Basic)	22,739,044	8,062,352	16,827,420	4,806,753
Weighted Average Common Shares Outstanding (Diluted)	76,806,872	8,062,352	16,827,420	4,806,753

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

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ASCENT SOLAR TECHNOLOGIES, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

	Nine months ended September 30,	
	2018	2017
Operating Activities:		
Net loss	$(7,580,493)	$(12,649,291)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	289,324	1,012,185
Share based compensation	24,822	108,717
Warrant expense	—	335,739
Realized gain on sale of assets	(14,000)	(1,199,606)
Amortization of financing costs to interest expense	21,750	73,018
Non-cash interest expense	935,190	1,273,087
Amortization of debt discount	3,690,823	3,656,430
Bad debt expense	(8,868)	514
Accrued litigation settlement	—	(339,481)
Write-down of inventory	—	363,758
Write down of patents	59,153	—
Warranty reserve	(9,702)	(71,355)
Change in fair value of derivatives and (gain)/loss on extinguishment of liabilities, net	(2,599,870)	(3,753,466)
Inducement conversion costs	—	635,514
Changes in operating assets and liabilities:		
Accounts receivable	(16,340)	545,481
Inventories	68,759	1,139,001
Prepaid expenses and other current assets	247,919	493,008
Accounts payable	965,175	(1,469,670)
Related party payable	(2,827)	(13,287)
Accrued expenses	885,788	(850,316)
Net cash used in operating activities	(3,043,397)	(10,710,020)
Investing Activities:		
Proceeds from the sale of assets	14,000	150,000
Purchase of property, plant, and equipment	—	(6,402)
Patent activity costs	(9,705)	(50,898)
Net cash provided by investing activities	4,295	92,700
Financing Activities:		
Proceeds from issuance of debt	3,102,500	4,365,000
Proceeds from issuance of stock	—	9,010,000
Payment of debt financing costs	(5,500)	(20,000)
Repayment of debt	(89,686)	(1,785,597)
Net cash provided by financing activities	3,007,314	11,569,403
Net change in cash and cash equivalents	(31,788)	952,083
Cash and cash equivalents at beginning of period	89,618	130,946
Cash and cash equivalents at end of period	$57,830	$1,083,029
Supplemental Cash Flow Information:		
Cash paid for interest	$308,542	$1,120,350
Cash paid for income taxes	—	—

Non-Cash Transactions:		
Non-cash conversions of convertible notes and preferred stock	$5,843,954	$10,914,988
Interest converted to principal	$140,355	$104,199
Initial derivatives	$2,736,724	$—
Make-whole dividend	$—	$257,152
Accounts payable converted to notes payable	$308,041	$1,637,260
Non-cash finance costs	$25,000	$2,500
Accounts payable forgiven in relation to Sale of EnerPlex	$—	$1,031,726
Promissory notes exchanged for convertible notes	$511,871	$—
Stock issued for commitment fee	$—	$63,750

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

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ASCENT SOLAR TECHNOLOGIES, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

NOTE 1. ORGANIZATION

Ascent Solar Technologies, Inc. (“Ascent”) was incorporated on October 18, 2005 from the separation of ITN Energy Systems, Inc's (“ITN”) Advanced Photovoltaic Division and all of that division’s key personnel and core technologies. ITN, a private company incorporated in 1994, is an incubator dedicated to the development of thin-film, photovoltaic (“PV”), battery, fuel cell, and nano technologies. Through its work on research and development contracts for private and governmental entities, ITN developed proprietary processing and manufacturing know-how applicable to PV products generally, and to Copper-Indium-Gallium-diSelenide (“CIGS”) PV products in particular. ITN formed Ascent to commercialize its investment in CIGS PV technologies. In January 2006, in exchange for 5,140 shares of common stock of Ascent, ITN assigned to Ascent certain CIGS PV technologies and trade secrets and granted to Ascent a perpetual, exclusive, royalty-free worldwide license to use, in connection with the manufacture, development, marketing and commercialization of CIGS PV to produce solar power, certain of ITN’s existing and future proprietary and control technologies that, although non-specific to CIGS PV, Ascent believes will be useful in its production of PV modules for its target markets. Upon receipt of the necessary government approvals and pursuant to novation in early 2007, ITN assigned government-funded research and development contracts to Ascent and also transferred the key personnel working on the contracts to Ascent.

Currently, the Company is focusing on integrating its PV products into high value markets such as aerospace, satellites, near earth orbiting vehicles, fixed-wing unmanned aerial vehicles (UAV), military, and emergency preparedness. 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.

Sale of EnerPlex Brand

In February 2017, Ascent announced the sale of our EnerPlex brand and related intellectual properties and trademarks associated with EnerPlex to our battery product supplier, Sun Pleasure Co. Limited (“SPCL”), in an effort to better allocate its resources and to continue to focus on its core strength in the high-value specialty PV market. Effective February 27, 2017, Ascent no longer produces or sells Enerplex-branded consumer products. Ascent will supply solar PV products to SPCL, supporting the continuous growth of EnerPlex™ with Ascent’s proprietary and award-winning thin-film solar technologies and products.

During the third quarter of 2018, Ascent greatly reduced production in an effort to meet cash flow challenges. The Company stopped manufacturing PV in anticipation of projects and started producing PV on a per project basis. Ascent continues to design PV integrated consumer electronics as well as portable power applications for commercial and military users. Due to the high durability enabled by the monolithic integration employed by our technology, the capability to customize modules into different form factors and the industry leading light weight and flexibility provided by our modules, the Company believes that the potential applications for our products are numerous.

NOTE 2. BASIS OF PRESENTATION
The accompanying condensed consolidated financial statements have been derived from the accounting records of Ascent Solar Technologies, Inc., Ascent Solar (Asia) Pte. Ltd., and Ascent Solar (Shenzhen) Co., Ltd. (collectively, "the Company") as of September 30, 2018 and December 31, 2017, and the results of operations for the three and nine months ended September 30, 2018 and 2017. Ascent Solar (Shenzhen) Co., Ltd. is wholly owned by Ascent Solar

(Asia) Pte. Ltd., which is wholly owned by Ascent Solar Technologies, Inc. All significant inter-company balances and transactions have been eliminated in the accompanying condensed consolidated financial statements.

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The accompanying, unaudited, condensed consolidated 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 Consolidated Balance Sheet at December 31, 2017 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, 2017. These condensed consolidated 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, 2017.

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 nine months ended September 30, 2018 are not necessarily indicative of the results that may be expected for the year ending December 31, 2018.

NOTE 3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The Company's significant accounting policies were described in Note 3 to the audited financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2017. There have been no significant changes to our accounting policies as of September 30, 2018.

Recently Adopted or to be Adopted Accounting Policies

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606), and has issued a number of clarifying ASUs subsequently, all of which outline a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry-specific guidance. The core principle of the revenue model is that "an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services." The standard provides enhancements to the quality and consistency of how revenue is reported by companies, while also improving comparability in the financial statements of companies reporting using International Financial Reporting Standards or U.S. GAAP. The new standard also will require enhanced revenue disclosures, provide guidance for transactions that were not previously addressed comprehensively, and improve guidance for multiple-element arrangements. This accounting standard becomes effective for the Company for reporting periods beginning after December 15, 2017, and interim reporting periods thereafter. Early adoption is permitted for annual reporting periods (including interim periods) beginning after December 15, 2016. This new standard permits the use of either the retrospective or cumulative effect transition method. The implementation of ASU 2014-09 did not have a material effect on the Company's consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842). ASU 2016-02 requires lessees to recognize all leases, including operating leases, on the balance sheet as a lease asset or lease liability, unless the lease is a short-term lease. ASU 2016-02 also requires additional disclosures regarding leasing arrangements. ASU 2016-02 is effective for interim periods and fiscal years beginning after December 15, 2018, and early application is permitted. The Company has evaluated the adoption of this guidance and has determined there will not be a material impact on its consolidated financial statements.

In May 2017, the FASB issued ASU No. 2017-09, Compensation - Stock Compensation (Topic 718). ASU 2017-09 provides guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting in Topic 718. ASU 2017-09 is effective for interim periods and fiscal years beginning after December 15, 2017, and early application is permitted. The implementation of ASU 2017-09 did not have a material effect on the Company's consolidated financial statements.

In July 2017, the FASB issued ASU No. 2017-11 Part I, Earnings Per Share (Topic 260), Distinguishing Liabilities from Equity (Topic 480), Derivatives and Hedging (Topic 815). ASU 2017-11 Part I changes the classification analysis of certain equity linked financial instruments with down round features. ASU 2017-11 Part I is effective, for public business entities, for interim periods and fiscal years beginning after December 15, 2018, and early application is permitted. The Company is currently evaluating the impact, if any, that the adoption of this guidance will have on its consolidated financial statements.

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In June 2018, the FASB issued ASU No. 2018-07, Compensation-Stock Compensation (Topic 718): Improvements to Non-employee Share-Based Payment Accounting, which simplifies the accounting for share-based payments to non-employees by aligning it with the accounting for share-based payments to employees, with specified exceptions. This standard is effective for the Company in the first quarter of 2020, and early adoption is permitted. The Company expects the adoption of this standard will not have a material impact on its consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework-Changes to the Disclosure Requirements for Fair Value Measurement, which modifies the disclosure requirements of fair value measurements. This standard is effective for the Company in the first quarter of 2020, and early adoption is permitted. The Company is currently evaluating the impact of the effect adoption of this standard will have on its consolidated financial statements.

Other new pronouncements issued but not effective as of September 30, 2018 are not expected to have a material impact on the Company’s condensed consolidated financial statements.

NOTE 4. LIQUIDITY AND CONTINUED OPERATIONS

During the nine months ended September 30, 2018 and the year ended December 31, 2017, the Company entered into multiple financing agreements to fund operations. Further discussion of these transactions can be found in Notes 7 through 13, and Note 16 of the financial statements presented as of, and for, the nine months ended, September 30, 2018, and in Notes 8 through 22 and Note 30 of the financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2017.

The Company has continued 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 implemented its product strategy. During the nine months ended September 30, 2018 the Company used $3.0 million in cash for operations. The Company's primary significant long term cash obligation consists of a note payable of $5.4 million to a financial institution secured by a mortgage on its headquarters and manufacturing building in Thornton, Colorado. Total payments of approximately $0.1 million, including principal and interest, will come due in the remainder of 2018.

Additional projected product revenues are not anticipated to result in a positive cash flow position for the year 2018 overall and, as of September 30, 2018, the Company has negative working capital. As such, cash liquidity sufficient for the year ending December 31, 2018 will require additional financing.

The Company continues to accelerate sales and marketing efforts related to its consumer and military solar products and specialty PV application strategies through expansion of its sales and distribution channels. The Company has begun 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 substantial doubt as to the Company’s ability to continue as a going concern. The Company has scaled down its operations, due to cash flow issues, and does not expect to ramp up until significant financing is obtained.

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

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NOTE 5. PROPERTY, PLANT AND EQUIPMENT

The following table summarizes property, plant and equipment as of September 30, 2018 and December 31, 2017:

	As of September 30, 2018	As of December 31, 2017
Building	$5,828,960	$ 5,828,960
Furniture, fixtures, computer hardware and computer software	489,421	489,421
Manufacturing machinery and equipment	30,302,806	30,327,481
Property, plant and equipment	36,621,187	36,645,862
Less: Accumulated depreciation and amortization	(32,158,632)	(32,013,686)
Net property, plant and equipment	$4,462,555	$ 4,632,176

The Company analyzes its long-lived assets for impairment, both individually and as a group, whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. No assets were impaired for the three and nine months ended September 30, 2018.

Depreciation expense for the three and nine months ended September 30, 2018 was $52,319 and $169,621, respectively, compared to depreciation expense of $266,489 and $889,606 for the three and nine months ended September 30, 2017, respectively. Depreciation expense is recorded under “Depreciation and amortization expense” in the Condensed Consolidated Statements of Operations.

NOTE 6. INVENTORIES

Inventories consisted of the following at September 30, 2018 and December 31, 2017:

	As of September 30, 2018	As of December 31, 2017
Raw materials	$ 644,944	$688,904
Work in process	23,750	11,878
Finished goods	300,401	337,072
Total	$ 969,095	$1,037,854

The Company analyzes its inventory for impairment, both categorically and as a group, whenever events or changes in circumstances indicate that the carrying amount of the inventory may not be recoverable. During the nine months ended September 30, 2018, the Company did not impair inventory, compared to an impairment of $363,758, for the nine months ended September 30, 2017.

Inventory amounts are shown net of allowance of $515,864 and $562,140 as of September 30, 2018 and December 31, 2017, respectively.

NOTE 7. NOTES PAYABLE

On February 24, 2017, the Company entered into an agreement with a vendor to convert the balance of their account into three notes payable in the aggregate amount of $765,784. The notes bear interest of 6% per annum and matured on February 24, 2018; all outstanding principal and accrued interest is due and payable upon maturity. On June 5, 2018, the Company entered into another agreement with the same vendor to convert the balance of their account into a fourth note payable with a principal amount of $308,041, this note also bears interest at a rate of 6% per annum, and matured on July 31, 2018. As of September 30, 2018, the Company had not made any payments on these notes; the total outstanding principal and accrued interest were $1,073,825 and $80,415, respectively, and the note is due upon demand.

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On March 23, 2017, the Company entered into an agreement with a vendor to convert the balance of their account into a note payable in the amount of $356,742. The note bears interest of 5% per annum and matured on March 31, 2018; all outstanding principal and accrued interest is due and payable upon maturity. As of September 30, 2018, the note had been redeemed in stock; on July 25, 2018, the investor, elected to redeem the note, along with $23,897 in accrued interest, for 2,138,421 shares of common stock. The conversion rate was based on the average of the prior five trading days' closing price.

On June 30, 2017, the Company entered into an agreement with a 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; all outstanding principal and accrued interest is due and payable upon maturity. As of September 30, 2018, the Company had not made any payments on these notes, the accrued interest was $15,651, and the note is due upon demand.

On September 30, 2017, the Company entered into a settlement agreement with a customer to convert the credit balance of their account into a note payable in the amount of $215,234. The note bears interest of 5% per annum and matures on September 30, 2018. The Company has not made the monthly payments of $18,426 that were to commence on October 30, 2017; as of September 30, 2018 the company had paid principal of $22,529 and interest of $897. The remaining principal and interest balances, as of September 30, 2018, were $192,705 and $9,129 , respectively.

NOTE 8. DEBT

On February 8, 2008, the Company acquired a manufacturing and office facility in Thornton, Colorado, for approximately $5.5 million. The purchase was financed by a promissory note, deed of trust and construction loan agreement (the “Construction Loan”) with the Colorado Housing and Finance Authority (“CHFA”), which provided the Company borrowing availability of up to $7.5 million for the building and building improvements. In 2009, the Construction Loan was converted to a permanent loan pursuant to a Loan Modification Agreement between the Company and CHFA (the “Permanent Loan”). The Permanent Loan, collateralized by the building, has an interest rate of 6.6% and the principal will be amortized through its term to January 2028. Further, pursuant to certain negative covenants in the Permanent Loan, the Company may not, among other things, without CHFA’s prior written consent (which by the terms of the deed of trust is subject to a reasonableness requirement): create or incur additional indebtedness (other than obligations created or incurred in the ordinary course of business); merge or consolidate with any other entity; or make loans or advances to the Company’s officers, shareholders, directors or employees.

On November 1, 2016, the Company and the CHFA agreed to modify the original agreement described above with the addition of a forbearance period. Per the modification agreement, no payments of principal and interest shall be due under the note during the forbearance period commencing on November 1, 2016 and continuing through April 1, 2017. The amount of interest that should have been paid by the Company during the forbearance period in the total amount of $180,043 shall be added to the outstanding principal balance of the note. As a result, on May 1, 2017, the principal balance of the note was $5,704,932. Commencing on May 1, 2017, the monthly payments of principal and interest due under the note resumed at $57,801, and the Company shall continue to make such monthly payments over the remaining term of the note ending on February 1, 2028.

On August 24, 2018, the Company and the CHFA agreed to modify the original agreement with an additional forbearance period. Per the modification agreement, no payments of principal shall be due under the note during the forbearance period commencing on June 1, 2018 and continuing through November 30, 2018. For each month of forbearance, partial interest of $15,000 per month must be paid, and the remaining unpaid interest of the forbearance period of $84,187 will be added to the outstanding principal balance of the note. As a result, on December 1, 2018, the principal balance of the note will be $5,434,042and monthly payments of principal and interest of $57,801 will resume, continuing through the remaining term of the note ending on February 1, 2028.

The outstanding principal balance of the Permanent Loan was $5,434,042 and $5,461,819 as of September 30, 2018 and December 31, 2017, respectively.

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As of September 30, 2018, remaining future principal payments on long-term debt are due as follows:

2018	$55,981
2019	349,093
2020	372,843
2021	398,209
2022	425,301
Thereafter	3,832,615
	$5,434,042

NOTE 9. SECURED PROMISSORY AND CONVERTIBLE NOTES

Global Ichiban Secured Promissory Notes

On November 30, 2017, the Company, entered into a note purchase and exchange agreement with Global Ichiban Ltd., for the private placement of up to $2,000,000 of the Company’s secured convertible promissory notes in exchange for $2,000,000 of gross proceeds in several tranches through June 2018, The closing of each tranche is conditioned upon the Company having an average daily trading volume for its Common Stock of at least $50,000 for the 20 trading day period preceding such future tranche closing dates.

Pursuant to the terms of the note purchase and exchange agreement, the Company and the investor also agreed to exchange certain outstanding securities held by the investor for additional notes. As of November 30, 2017, the investor surrendered for cancellation (i) its outstanding promissory note dated September 13, 2017 ($3,359,539 principal and accrued interest), (ii) its outstanding promissory note dated October 31, 2017 ($252,466 principal and accrued interest), and (iii) its 400 shares of outstanding Series J Preferred Stock ($445,222 of capital and accrued dividends). In exchange, the Company issued to the investor $4,057,227 aggregate principal amount of additional Notes. Please refer to Note 11 and Note 21 of the financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2017 for further discussion on the canceled promissory notes and the canceled Series J Preferred Stock shares.

All principal and accrued interest on the notes are convertible at any time, in whole or in part, at the option of the investor into shares of common stock at a variable conversion price equal to the lowest of (i) 85% of the average VWAP for the shares over the prior 5 trading days, (ii) the closing bid price for the shares on the prior trading day, or (iii) $2.00 per share

The notes may not be converted, and shares of common stock may not be issued pursuant to the notes, if, after giving effect to the conversion or issuance, the holder together with its affiliates would beneficially own in excess of 9.99% of the outstanding shares of common stock.

Of the notes issued on November 30, 2017, $3,359,539 aggregate principal amount will mature on December 15, 2020. Principal and interest was originally to be payable in 36 equal monthly installments of $111,585 beginning January 15, 2018. During the nine months ended September 30, 2018, principal of $1,426,000 was converted into 3,486,276 shares of common stock, and during the nine months ended September 30, 2018 $140,355 of interest was converted to principal. The remaining note is payable in 30 equal monthly installments of $80,360 beginning July 15, 2018. The following table summarizes the conversion activity of this note:

Conversion Period	Principal Converted	Interest Converted	Common Shares

		Issued
Q1 2018	$1,250,000	—2,450,981
Q2 2018	$176,000	—1,035,295
	$1,426,000	—3,486,276

Of the notes issued on November 30, 2017, $697,688 aggregate principal amount will mature on November 30, 2018. Principal and interest will be payable upon maturity.

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The $2,000,000 aggregate principal amount of notes, issued in eight tranches, will mature on the first anniversary of the respective issuance date. Principal and interest will be payable upon maturity. As of September 30, 2018, the closing dates, closing amounts, and maturity dates on completed note tranches are as follows:

Closing Date	Closing Amount	Maturity Date
11/30/2017	$250,000	11/30/2018
12/28/2017	$250,000	12/28/2018
1/11/2018	$250,000	1/11/2019
1/25/2018	$250,000	1/25/2019
2/8/2018	$250,000	2/8/2019
2/21/2018	$250,000	2/21/2019
3/7/2018	$250,000	3/7/2019
3/21/2018	$250,000	3/21/2019

The notes will be secured by a security interest on substantially all of the Company's assets, bear interest at a rate of 12% per annum and contain standard and customary events of default including but not limited to: (i) failure to make payments when due under the notes, and (ii) bankruptcy or insolvency of the Company. There are no registration rights applicable to the notes.

On July 6, 2018, the Company issued a non-convertible promissory note to Global Ichiban Ltd., pursuant to the note purchase and exchange agreement dated November 30, 2017. In accordance with the agreement, the Company issued a note with a principal balance of $135,000 in exchange for gross proceeds of $120,000. This note bears interest at a rate of 12% per annum and matures on July 6, 2019. Principal and interest on this note are payable at maturity. The original issue discount of $15,000 will be allocated to interest expense, ratably, over the life of the note.

As of September 30, 2018, the aggregate principal and interest balance of the Notes were $4,906,582 and $331,758, respectively.

Pursuant to a number of factors outlined in ASC Topic 815, Derivatives and Hedging, the conversion option in the notes were deemed to include an embedded derivative that required bifurcation and separate accounting. As such, the Company ascertained the value of the conversion option as if separate from the convertible issuance and appropriately recorded that value as a derivative liability. The fair value measurements rely primarily on Company-specific inputs and the Company's own assumptions. With the absence of observable inputs, the Company determined these recurring fair value measurements reside primarily within Level 3 of the fair value hierarchy. The derivative associated with the notes approximates management's estimate of the fair value of the embedded derivative liability based on using a Monte Carlo simulation following a Geometric Brownian Motion with the following assumptions identified below.

Due to the varying terms and varying issue dates, the tranches of this instrument were broken into four separate instruments for valuation purposes.

1) The first valuation was done on the November 30, 2017 note with term of three years. The derivative value of this note was $3,742,002 as of December 31, 2017.

1) The second valuation was done on the group of notes dated November 30, 2017, that had a term of one year. The derivative value of this group of notes was $888,168 as of December 31, 2017.

2) The third valuation was done on the note dated December 28, 2017, which had a term of one year. The derivative value of this note was $267,008 on December 31, 2017.

3) For the notes dated in the first quarter of 2018, we did a fourth valuation. Although the notes were entered into at various dates, we used a weighted average issuance date of February 15, 2018 for a combined valuation purpose. Management's analysis, using the following assumptions: annual volatility of 54% present value discount rate of 12% and a dividend yield of 0%, resulted in a fair value of the embedded derivative associated with these Notes of $1,151,162 as of February 15, 2018. The value of the embedded derivative associated with these Notes was recorded as a debt discount.

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The derivative liability associated with the notes is subject to revaluation on a quarterly basis to reflect the market value change of the embedded conversion option. At September 30, 2018, the Company conducted a fair value assessment of the embedded derivative associated with the three valuation groups discussed above.

1) For the November 30, 2017 3yr note: Management conducted a fair value assessment with the following assumptions: annual volatility of 65% present value discount rate of 12% and a dividend yield of 0% as of September 30, 2018. As a result of the fair value assessment, the Company recorded a net gain of $2,440,427 as "Change in fair value of derivatives and gain/(loss) on extinguishment of liabilities, net" in the Consolidated Statements of Operations to properly reflect the fair value of the embedded derivative of $1,301,575 as of September 30, 2018.

2) For the November 30, 2017 1yr notes: Management conducted a fair value assessment with the following assumptions: annual volatility of 104% present value discount rate of 12% and a dividend yield of 0% as of September 30, 2018. As a result of the fair value assessment, the Company recorded a net gain of $436,920 as "Change in fair value of derivatives and gain/(loss) on extinguishment of liabilities, net" in the Consolidated Statements of Operations to properly reflect the fair value of the embedded derivative of $451,248 as of September 30, 2018.

3) For the December 28, 2017 1yr note: Management conducted a fair value assessment with the following assumptions: annual volatility of 104% present value discount rate of 12% and a dividend yield of 0% as of September 30, 2018. As a result of the fair value assessment, the Company recorded a net gain of $147,969 as "Change in fair value of derivatives and gain/(loss) on extinguishment of liabilities, net" in the Consolidated Statements of Operations to properly reflect the fair value of the embedded derivative of $119,039 as of September 30, 2018.

4) For the first quarter 2018 1yr notes: Management conducted a fair value assessment with the following assumptions: annual volatility of 104% present value discount rate of 12% and a dividend yield of 0% as of September 30, 2018. As a result of the fair value assessment, the Company recorded a net gain of $436,927 as "Change in fair value of derivatives and gain/(loss) on extinguishment of liabilities, net" in the Consolidated Statements of Operations to properly reflect the fair value of the embedded derivative of $714,235 as of September 30, 2018.

During the three months ended September 30, 2018, a cumulative net gain of $2,676,943 was recorded as a change in fair value. The total cumulative net gain for the nine months ended September 30, 2018 was $3,462,243 to reflect a total derivative liability of $2,586,097 as of September 30, 2018. Subsequent to the date of this report, the Company entered into another promissory note under this security agreement. Please refer to Note 16 for more information.

St. George Secured Convertible Note

On May 8, 2018, the Company, entered into a note purchase agreement with St. George Investments LLC, for the private placement of a $575,000 secured convertible promissory note. The Company received $500,000 in aggregate proceeds for the note in two tranches and recorded and original issue discount of $50,000 and debt financing costs of $25,000. The original issue discount and the financing costs will be recognized as interest expense, ratably, over the life of the note. The note bears interest at a rate of 10% per annum and matures on May 9, 2019. All unredeemed principal and accrued interest is payable upon maturity. The note contains standard and customary events of default including but not limited to: (i) failure to make payments when due under the note, and (ii) bankruptcy or insolvency of the Company. In the event of default the interest rate increases to 22% per annum. The note is secured by a junior security interest on the Company's headquarters building, located in Thonrton, Colorado. There are no registration

rights applicable to this agreement.

As of September 30, 2018, the aggregate principal and interest balance of the note were $575,000 and $22,842, respectively.

Beginning in early November 2018, St. George shall have the option to require the Company to redeem all or a portion of the amounts outstanding under the note. The Company may pay the requested redemption amounts in cash or in the form of shares of common stock (subject to certain specified equity conditions). Payments in the form of Common Stock shall be calculated using a variable conversion price equal to (i) 60% of the average of the two lowest closing bid prices for the shares over (ii) the prior ten day trading period immediately preceding the redemption.

Shares of common stock may not be issued pursuant to the note if, after giving effect to the conversion or issuance, the holder together with its affiliates would beneficially own in excess of 4.99% of the outstanding shares of common stock. This ownership limitation will be automatically increased to 9.99% if the Company’s market capitalization is less than $10 million. The ownership limitation can also be increased at the option of the Investor (up to a maximum of 9.99%) upon 61 days advance written notice.

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Pursuant to a number of factors outlined in ASC Topic 815, Derivatives and Hedging, the redemption option in the note was deemed to include an embedded derivative that required bifurcation and separate accounting. As such, the Company ascertained the value of the redemption option as if separate from the convertible issuance and appropriately recorded that value as a derivative liability. The fair value measurements rely primarily on company-specific inputs and the Company's own assumptions. With the absence of observable inputs, the Company determined these recurring fair value measurements reside primarily within Level 3 of the fair value hierarchy. The derivative associated with the note approximates management's estimate of the fair value of the embedded derivative liability based on using a Monte Carlo simulation following a Geometric Brownian Motion with the following assumptions: annual volatility of 50%, present value discount rate of 12%, and a dividend yield rate of 0%. These assumption resulted in the fair value of the embedded derivative of $862,439, associated with this note at inception.

The derivative liability associated with the note is subject to revaluation on a quarterly basis to reflect the market value change of the embedded conversion option. At September 30, 2018, the Company conducted a fair value assessment of the embedded derivative associated with the note. As a result of the fair value assessment, the Company recorded a $339,078 gain as "Change in fair value of derivatives and gain/(loss) on extinguishment of liabilities, net" in the Condensed Consolidated Statements of Operations, to properly reflect the fair value of the embedded derivative of $523,361 as of September 30, 2018.

The fair value measurements rely primarily on Company-specific inputs and the Company's own assumptions. With the absence of observable inputs, the Company determined these recurring fair value measurements reside primarily within Level 3 of the fair value hierarchy. The derivative associated with the note approximates management's estimate of the fair value of the embedded derivative liability at September 30, 2018 based on using a Monte Carlo simulation following a Geometric Brownian Motion with the following assumptions: annual volatility of 86%, present value discount rate of 12% and dividend yield of 0%.

NOTE 10. PROMISSORY NOTES

Offering of Unsecured, Non-Convertible Notes to Investor 1

During October 2016, the Company received $420,000 from a private investor "Investor 1". These funds, along with $250,000 of additional funding, were rolled into a promissory note, executed on January 17, 2017, in the amount of $700,000 issued with a discount of $30,000 which will be charged to interest expense ratably over the term of the note. The note bears interest at 12% per annum and matures on July 17, 2017. Principal and interest on this note are payable at maturity. This note is not convertible into equity shares of the Company and is unsecured.

On June 30, 2017, the Company and Investor 1 agreed to a 12 month payment plan on the balance of this promissory note. Interest will continue to accrue on this note at 12% per annum and payments of approximately $62,000 will be made monthly beginning in July 2017. The Company has not made all the payments according to this payment plan, and the note is payable upon demand.

As of September 30, 2018, $205,563 of principal and $45,414 of interest had been paid on this note. The outstanding principal and accrued interest balances on the note as of September 30, 2018 were $494,437 and $71,503, respectively.

Offering of Unsecured, Non-Convertible Notes to Investor 2

On November 16, 2017, the Company initiated a non-convertible, unsecured promissory note with another private investor ("Investor 2") for $275,000. The promissory note was issued with an original issue discount of $25,000,

resulting in proceeds to the company of $250,000. The note does not have a stated interest rate and matured on December 18, 2017.

On July 25, 2018, the Company, entered into a new securities exchange agreement with Investor 2. Pursuant to the terms of the Exchange Agreement, Investor 2 agreed to surrender and exchange the promissory note with a principal balance of $275,000 in exchange for a convertible note. See Note 11 for further discussion on the new convertible note.

Offering of Unsecured, Non-Convertible Notes to Investor 3

On January 31, 2018, the Company initiated a non-convertible, unsecured promissory note with another private investor ("Investor 3") for an aggregate principal amount of $200,000. The promissory note was issued with an original issue discount of $22,500, which will be recorded as interest expense ratably over the term of the note, resulting in proceeds to the company of $177,500, which was received in December 2017. The note bears interest at 12% per annum and matures on December 29, 2018. All principal and interest is payable upon maturity.

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On September 7, 2018, the Company, entered into a new securities exchange agreement with Investor 3. Pursuant to the terms of the Exchange Agreement, Investor 3 agreed to surrender and exchange the promissory note with a principal balance of $200,000, plus accrued interest of $16,800, in exchange for a convertible note. See Note 11 for further discussion on the new convertible note.

On June 6, 2018, the Company initiated a non-convertible, unsecured promissory note with Investor 3 for an aggregate principal amount of $315,000. The promissory note was issued with an original issue discount of $55,000, which will be recorded as interest expense ratably over the term of the note, resulting in proceeds to the company of $260,000, that was received in several tranches between February 2018 and April 2018. This note bears interest at 12% per annum and matures on June 6, 2019. All principal and interest is payable upon maturity. As of September 30, 2018, the remaining principal and interest on on this note were $315,000 and $17,430, respectively.

On July 24, 2018, the Company initiated a non-convertible, unsecured promissory note with Investor 3 for an aggregate principal amount of $115,000. The promissory note was issued with an original issue discount of $27,500, which will be recorded as interest expense ratably over the term of the note, resulting in proceeds to the company of $87,500, that was received in several tranches between May 2018 and June 2018. This note bears interest at 12% per annum and matures on January 24, 2019. All principal and interest is payable upon maturity. As of September 30, 2018, the remaining principal and interest on on this note were $115,000 and $4,397, respectively.

On September 10, 2018, the Company initiated a non-convertible, unsecured promissory note with Investor 3 for an aggregate principal amount of $120,000. The promissory note was issued with an original issue discount of $20,000, which will be recorded as interest expense ratably over the term of the note, resulting in proceeds to the company of $100,000, that was received in several tranches between June 2018 and September 2018. This note bears interest at 12% per annum and matures on March 10, 2019. All principal and interest is payable upon maturity. As of September 30, 2018, the remaining principal and interest on on this note were $120,000 and $1,349, respectively.

As of September 30, 2018, the Company had also received undocumented proceeds of $70,000 from Investor 3. The Company has accrued interest on these proceeds at the rate of 12% per annum and had recorded $212 of accrued interest as of September 30, 2018.

NOTE 11. CONVERTIBLE NOTES

October 2016 Convertible Notes

On October 5, 2016, the Company entered into a securities purchase agreement with a private investor for the private placement of $330,000 principal amount of convertible notes. At Closing, the Company sold and issued $330,000 principal amount of convertible notes in exchange for $330,000 of gross proceeds.

The convertible notes matured on December 31, 2017 and bear interest at a rate of 6% per annum, subject to increase to 24% per annum upon the occurrence and continuance of an event of default. Principal and accrued interest on the convertible notes is payable upon demand.

All principal and accrued interest on the convertible notes is convertible at any time, in whole or in part, at the option of the investor, into shares of common stock at a variable conversion price equal to 80% of the lowest closing bid price of the Company’s common stock for the fifteen consecutive trading day period prior to the conversion date. After the six month anniversary of the issuance of any convertible note, the conversion price for such note shall thereafter be equal to 50% of the lowest closing bid price of the Company’s common stock for the fifteen consecutive trading day period prior to the conversion date.

The convertible notes contain standard and customary events of default including but not limited to: (i) failure to make payments when due under the convertible notes; and (ii) bankruptcy or insolvency of the Company.

Outstanding principal and accrued interest on the convertible notes were $330,000 and $39,875, respectively as of September 30, 2018.

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Pursuant to a number of factors outlined in ASC Topic 815, Derivatives and Hedging, the conversion option in the convertible notes were deemed to include an embedded derivative that required bifurcation and separate accounting. As such, the Company ascertained the value of the conversion option as if separate from the convertible issuance and appropriately recorded that value as a derivative liability. At closing, a derivative liability and a corresponding debt discount in the amount of $330,000 was recorded. The fair value of the derivative was greater than the face value at issuance and the difference of $341,114 was charged to interest expense at issuance. The remaining debt discount will be charged to interest expense ratably over the life of the October 2016 Convertible Notes. As of December 31, 2017, the fair value of the derivative liability was $572,643.

The derivative liability associated with the convertible notes is subject to revaluation on a quarterly basis to reflect the market value change of the embedded conversion option. At September 30, 2018, the Company conducted a fair value assessment of the embedded derivative associated with the convertible notes. As a result of the fair value assessment, the Company recorded a $275,517 gain as "Change in fair value of derivatives and gain/(loss) on extinguishment of liabilities, net" in the Condensed Consolidated Statements of Operations for the three months ended September 30, 2018. A total net gain of $137,666 was recorded for the nine months ended September 30, 2018, to properly reflect the fair value of the embedded derivative of $434,977 as of September 30, 2018.

The fair value measurements rely primarily on company-specific inputs and the Company’s own assumptions. With the absence of observable inputs, the Company determined these recurring fair value measurements reside primarily within Level 3 of the fair value hierarchy. The derivative associated with the convertible notes approximates management’s estimate of the fair value of the embedded derivative liability at September 30, 2018 based on using a Monte Carlo simulation following a Geometric Brownian Motion with the following assumptions: annual volatility of 106% present value discount rate of 12% and dividend yield of 0%.

St. George Convertible Note

On September 8, 2017, the Company entered into a securities purchase agreement with St. George Investments LLC for the private placement of $1,725,000 principal amount of the Company’s original issue discount convertible notes. On September 11, 2017, the Company sold and issued a $1,725,000 principal convertible notes to St. George in exchange for $1,500,000 of gross proceeds, and paid $20,000 in financing costs. The original issue discount of $225,000, and the financing costs, will be charged to interest expense, ratably, over the life of the note.

Unless earlier converted or prepaid, the convertible notes will mature on March 11, 2019. The note does not bear interest in the absence of an event of default.

For the first six months after the issuance of the convertible note, the Company will make a monthly cash repayment on the note of approximately $96,000. Thereafter, St. George may request that the Company make monthly partial redemptions of the note up to $150,000 per month. If St. George does not request the full $150,000 redemption amount in any one month, the unused portion of such monthly redemption amount can be added to future monthly redemption amounts; however, in no event, can the amount requested for any one month exceed $275,000.

Redemption amounts are payable by the Company in cash. Beginning ten months after the issuance of the convertible note, cash redemption payments by the Company will be subject to a 15% redemption premium.

Beginning six months after the issuance of the convertible note, the Company also has the option (subject to customary equity conditions) to pay redemption amounts in the form of shares of common stock. Payments in the form of shares would be calculated using a variable conversion price equal to the lower of (i) 85% of the average VWAP for the shares over the prior five trading days or (ii) the closing bid price for the shares on the prior trading

day.

In lieu of making the December 2017 through March 2018 cash payments, the share reserve was increased by 5 million shares, and on May 1, 2018, effective as of April 3, 2018, the parties agreed to amend the variable conversion price formula outlined in the securities purchase agreement. As amended, payments in the form of shares would be calculated using a variable conversion price equal to the lower of (i) 60% of the lowest VWAP for the shares during the prior five trading days or (ii) the closing bid price for the shares on the prior trading day.

All principal and accrued interest on the convertible note is convertible at any time, in whole or in part, at the option of St. George into shares of common stock at a fixed conversion price of $4 per share.

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The convertible note contains standard and customary events of default including but not limited to: (i) failure to make payments when due under the Note; and (ii) bankruptcy or insolvency of the Company. Upon the occurrence of an event of default, the convertible note will begin to bear interest at the rate of 22% per annum. In addition, upon the occurrence of an event of default, St. George has the option to increase the outstanding balance of the convertible note by 25%.

In connection with the closing under the securities purchase agreement, the Company issued 37,500 unregistered shares of common stock to St. George as an origination fee. The closing stock price on the date of close was $1.7 resulting in an interest expense of $63,750 being recorded as of the date of close.

The convertible note may not be converted, and shares of common stock may not be issued pursuant to the convertible note if, after giving effect to the conversion or issuance, the holder together with its affiliates would beneficially own in excess of 4.99% of the outstanding shares of common stock.

As of September 30, 2018, cash payments of $191,667 had been made on the convertible note, and $494,100 had been converted into 5,412,611 shares of the Company's common stock. The remaining balance on the note was $1,039,233 as of September 30, 2018. The following table summarizes the conversion activity of this note:

Conversion Period	Principal Converted	Common Shares Issued
Q1 2018	$ 75,000	187,500
Q2 2018	$ 316,600	2,082,778
Q3 2018	$ 102,500	3,142,333
	$ 494,100	$5,412,611

Pursuant to a number of factors outlined in ASC Topic 815, Derivatives and Hedging, the conversion option in the convertible note was deemed to include an embedded derivative that required bifurcation and separate accounting. As such, the Company ascertained the value of the conversion option as if separate from the convertible note issuance and appropriately recorded that value as a derivative liability. As of December 31, 2017, the derivative liability was $394,280.

The derivative liability associated with the convertible note is subject to revaluation on a quarterly basis to reflect the market value change of the embedded conversion option. At September 30, 2018, the Company conducted a fair value assessment of the embedded derivative associated with the convertible note. As a result of the fair value assessment, the Company recorded a $579,411 net gain as "Change in fair value of derivatives and gain/(loss) on extinguishment of liabilities, net" in the Condensed Consolidated Statements of Operations for the three months ended September 30, 2018. The total net gain recorded for the nine months ended September 30, 2018 was $71,147, to properly reflect the fair value of the embedded derivative of $323,133 as of September 30, 2018.

The fair value measurements rely primarily on company-specific inputs and the Company’s own assumptions. With the absence of observable inputs, the Company determined these recurring fair value measurements reside primarily within Level 3 of the fair value hierarchy. The derivative associated with the convertible note approximates management’s estimate of the fair value of the embedded derivative liability at September 30, 2018 based on using a Monte Carlo simulation following a Geometric Brownian Motion with the following assumptions: annual volatility of 86% present value discount rate of 12% and dividend yield of 0%.

BayBridge Convertible Note

On December 6, 2017, the Company entered into a securities exchange agreement (“Exchange Agreement 1”) with BayBridge Capital Fund LP.

Pursuant to the terms of the Exchange Agreement 1, BayBridge agreed to surrender and exchange 675 shares of outstanding Series J Preferred Stock ($755,417 of capital and accrued dividends) for a convertible note with an aggregate principal amount of $840,000 and an original issue discount of $84,583 ("Exchange Note 1"). Please refer to Note 21 of the financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2017 for further discussion on the Series J Preferred Stock.

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Exchange Note 1 is unsecured, has no applicable registration rights, bears interest at a rate of 12% per annum, matures on December 6, 2018, and contains standard and customary events of default including but not limited to: (i) failure to make payments when due under the convertible note, and (ii) bankruptcy or insolvency of the Company. Principal and interest are payable upon maturity.

Payments of principal and accrued interest on Exchange Note 1 are payable in cash or, at the option of the Company, in shares of common stock at a variable conversion price equal to the lowest of (i) 85% of the average VWAP for the shares over the prior 5 trading days, (ii) the closing bid price for the shares on the prior trading day, or (iii) $3.00 per share. Payments in shares of common stock may not be issued pursuant to the note if, after giving effect to the conversion or issuance, the holder together with its affiliates would beneficially own in excess of 9.99% of the outstanding shares of Common Stock.

On September 7, 2018, as described in Note 10., the Company, entered into an additional securities exchange agreement (“Exchange Agreement 2”) with Baybridge.

Pursuant to the terms of Exchange Agreement 2, BayBridge agreed to surrender and exchanged an outstanding promissory note with a principal balance of $200,000, plus accrued interest of $16,800, for a convertible note with an aggregate principal amount of $270,000 (“Exchange Note 2”).

Exchange Note 2 is unsecured, has no applicable registration rights, bears interest at a rate of 12% per annum, matures on September 7, 2019, and contains standard and customary events of default including but not limited to: (i) failure to make payments when due under the Exchange Note, and (ii) bankruptcy or insolvency of the Company. Principal and interest are payable upon maturity.

BayBridge shall have the right, from and after the date of issuance of Exchange Note 2, and then at any time until Exchange Note 2 is fully paid, to convert any outstanding and unpaid principal and interest into shares of common stock at a variable conversion price equal to the lesser of (i) a price equal to $0.15, or (ii) 70% of the lowest traded price for the shares over the prior five trading days.

Conversion to shares of common stock may not be issued pursuant to Exchange Note 2 if, after giving effect to the conversion or issuance, the holder together with its affiliates would beneficially own in excess of 4.99% of the outstanding shares of common stock.

As of September 30, 2018, aggregate principal of $840,000 and interest of $28,610 had been converted into 4,808,703 shares of common stock and no cash payments of principal or interest had been made on these exchange notes. The aggregate principal and accrued interest balances as of September 30, 2018 were $270,000 and $2,069, respectively. The following table summarizes the conversion activity of these notes:

Conversion Period	Principal Converted	Interest Converted	Common Shares Issued
Q4 2017	$ 275,000	$ —	404,412
Q1 2018	$ 105,000	$ 20,717	493,007
Q2 2018	$ 408,000	$ 6,090	2,435,823
Q3 2018	$ 52,000	$ 1,803	1,475,461
	$ 840,000	$ 28,610	4,808,703

Pursuant to a number of factors outlined in ASC Topic 815, Derivatives and Hedging, the conversion option in Exchange Note 1 was deemed to include an embedded derivative that required bifurcation and separate accounting. As

such, the Company ascertained the value of the conversion option as if separate from the convertible issuance and appropriately recorded that value as a derivative liability. At December 31, 2017, the derivative liability associated with Exchange Note 1 was $542,733. At September 30, 2018, Exchange Note 1 had been fully converted and the derivative liability had been reduced to zero.

The conversion option in Exchange Note 2 was deemed to include an embedded derivative that required bifurcation and separate accounting. As such, the Company ascertained the value of the conversion option as if separate from the convertible issuance and appropriately recorded that value as a derivative liability. At September 7, 2018, the derivative liability associated with Exchange Note 2 was $276,179.

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The derivative liability associated with these notes is subject to revaluation on a quarterly basis to reflect the market value change of the embedded conversion option. At September 30, 2018, the Company conducted a fair value assessment of the embedded derivative associated with the Exchange Note 2. As a result of the fair value assessment, the Company recorded a $152,315 gain as "Change in fair value of derivatives and gain/(loss) on extinguishment of liabilities, net" in the Condensed Consolidated Statements of Operations for the three months ended September 30, 2018 to properly reflect the fair value of the embedded derivative of $123,864 as of September 30, 2018.

The fair value measurements rely primarily on company-specific inputs and the Company’s own assumptions. With the absence of observable inputs, the Company determined these recurring fair value measurements reside primarily within Level 3 of the fair value hierarchy. The derivative associated with Exchange Note 2 approximates management’s estimate of the fair value of the embedded derivative liability at September 30, 2018 based on using a Monte Carlo simulation following a Geometric Brownian Motion with the following assumptions: annual volatility of 62%, present value discount rate of 12% and dividend yield of 0%.

Bellridge Convertible Notes

On July 25, 2018, as described in Note 10., the Company, entered into a securities exchange agreement (the “Exchange Agreement”) with Bellridge Capital, LP ("Bellridge"). Pursuant to the terms of the Exchange Agreement, the investor agreed to surrender and exchange a promissory note with a principal balance of $275,000. In exchange, the Company issued to the investor an unsecured convertible note with an aggregate principal amount of $300,000 (the “Exchange Note”).

The Exchange Note is not secured, bears interest at a rate of 12% per annum, and will mature on January 25, 2019; principal and interest on the Exchange Note are due upon maturity.

The investor shall have the right, from and after the date of issuance of this note and then at any time until the note is fully paid, to convert any outstanding and unpaid principal into shares of the Company's common stock at a variable conversion price equal to the lesser of (i) a price equal to $0.20, or (ii) 80% of the lowest traded price for the shares over the prior ten trading days.

Conversion to shares of common stock may not be issued pursuant to the Exchange Note if, after giving effect to the conversion or issuance, the holder together with its affiliates would beneficially own in excess of 4.99% of the outstanding shares of Common Stock.

On September 14, 2018, the “Company, issued a new $150,000 convertible note in a private placement to Bellridge.

The note is not secured, contains no registration rights, bears interest at a rate of 12% per annum, will mature on September 14, 2019, and contains standard and customary events of default including but not limited to: (i) failure to make payments when due under the note, and (ii) bankruptcy or insolvency of the Company. All principal and interest on the note are due upon maturity.

Bellridge shall have the option to convert all or a portion of the amounts outstanding under the note, into shares of the Company's common stock. Conversions into common stock shall be calculated using a variable conversion price equal to the lesser of (i) $0.20 or (ii) 70% of the lowest closing bid price for the shares over the prior five day trading period immediately preceding the conversion.

Shares of common stock may not be issued pursuant to note if, after giving effect to the conversion or issuance, the holder together with its affiliates would beneficially own in excess of 4.99% of the outstanding shares of Common Stock.

As of September 30, 2018, an aggregate principal of $137,500 and interest of $2,104, on the Bellridge convertible notes had been converted into 3,716,105 shares of common stock and no cash payments of principal or interest had been made. The aggregate principal and accrued interest balances as of September 30, 2018 were $312,500 and $4,429, respectively. The following table summarizes the conversion activity of these notes:

Conversion Period	Principal Converted	Interest Converted	Common Shares Issued
Q3 2018	$ 137,500	$ 2,104	3,716,105
	$ 137,500	$ 2,104	3,716,105

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Pursuant to a number of factors outlined in ASC Topic 815, Derivatives and Hedging, the conversion option in the Exchange Note was deemed to include an embedded derivative that required bifurcation and separate accounting. As such, the Company ascertained the value of the conversion option as if separate from the convertible issuance and appropriately recorded that value as a derivative liability. At July 25, 2018, the derivative liability associated with the Exchange Note was $203,859.

The conversion option in the new convertible note was deemed to include an embedded derivative that required bifurcation and separate accounting. As such, the Company ascertained the value of the conversion option as if separate from the convertible issuance and appropriately recorded that value as a derivative liability. At September 14, 2018, the derivative liability associated with the convertible note was $32,145.

The derivative liability associated with these notes is subject to revaluation on a quarterly basis to reflect the market value change of the embedded conversion option. At September 30, 2018, the Company conducted a fair value assessment of the embedded derivative associated with the notes. As a result of the fair value assessment, the Company recorded a $143,226 loss as "Change in fair value of derivatives and gain/(loss) on extinguishment of liabilities, net" in the Condensed Consolidated Statements of Operations for the three months ended September 30, 2018 to properly reflect the fair value of the embedded derivative of $379,230 as of September 30, 2018.

The fair value measurements rely primarily on Company-specific inputs and the Company’s own assumptions. With the absence of observable inputs, the Company determined these recurring fair value measurements reside primarily within Level 3 of the fair value hierarchy. The derivative associated with the notes approximates management’s estimate of the fair value of the embedded derivative liability at September 30, 2018 based on using a Monte Carlo simulation following a Geometric Brownian Motion with the following assumptions: annual volatility of 62%, present value discount rate of 12% and dividend yield of 0%.

PowerUp Convertible Notes

On August 1, 2018, the Company, entered into a securities purchase agreement with Power Up Lending Group LTD, for the private placement of a $130,000 convertible note . This note is unsecured, bears interest at a rate of 8% per annum, and matures on August 1, 2019; principal and interest is due upon maturity. In the event of default, the interest rate per annum increases to 22%.

Beginning in February 2019, Power Up shall have the option to convert all or a portion of the amounts outstanding under the convertible note, into shares of the Company's common stock. Conversions into common stock shall be calculated using a variable conversion price equal to 65% of the average of the three lowest closing bid prices for the shares over the prior ten day trading period immediately preceding the conversion.

Shares of common stock may not be issued pursuant to the note if, after giving effect to the conversion or issuance, the holder together with its affiliates would beneficially own in excess of 4.99% of the outstanding shares of common stock.

On September 4, 2018, the Company entered into a second securities purchase agreement with Power Up , for the private placement of a $52,500 another convertible note. This note is unsecured, bears interest at a rate of 8% per annum, and matures on September 14, 2019; principal and interest is due upon maturity. In the event of default, the interest rate per annum increases to 22%.

Beginning in March 2019, Power Up shall have the option to convert all or a portion of the amounts outstanding under the convertible note, into shares of the Company's common stock. Conversions into common stock shall be calculated

using a variable conversion price equal to 65% of the average of the three lowest closing bid prices for the shares over the prior ten day trading period immediately preceding the conversion.

Shares of common stock may not be issued pursuant to Note 2 if, after giving effect to the conversion or issuance, the holder together with its affiliates would beneficially own in excess of 4.99% of the outstanding shares of Common Stock.

As of September 30, 2018, no principal or interest had been converted into shares of common stock and no cash payments of principal or interest had been made. The aggregate principal and accrued interest balances as of September 30, 2018 were $182,500 and $2,009, respectively.

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Pursuant to a number of factors outlined in ASC Topic 815, Derivatives and Hedging, the conversion option in the first note was deemed to include an embedded derivative that required bifurcation and separate accounting. As such, the Company ascertained the value of the conversion option as if separate from the convertible issuance and appropriately recorded that value as a derivative liability. At August 1, 2018, the derivative liability associated with the first note was $78,382.

The conversion option in the second note was deemed to include an embedded derivative that required bifurcation and separate accounting. As such, the Company ascertained the value of the conversion option as if separate from the convertible issuance and appropriately recorded that value as a derivative liability. At September 4, 2018, the derivative liability associated with the second note was $128,613.

The derivative liability associated with these notes is subject to revaluation on a quarterly basis to reflect the market value change of the embedded conversion option. At September 30, 2018, the Company conducted a fair value assessment of the embedded derivative associated with the notes. As a result of the fair value assessment, the Company recorded a $62,870 gain as "Change in fair value of derivatives and gain/(loss) on extinguishment of liabilities, net" in the Condensed Consolidated Statements of Operations for the three months ended September 30, 2018 to properly reflect the fair value of the embedded derivative of $144,125 as of September 30, 2018.

The fair value measurements rely primarily on company-specific inputs and the Company’s own assumptions. With the absence of observable inputs, the Company determined these recurring fair value measurements reside primarily within Level 3 of the fair value hierarchy. The derivative associated with the convertible notes approximates management’s estimate of the fair value of the embedded derivative liability at September 30, 2018 based on using a Monte Carlo simulation following a Geometric Brownian Motion with the following assumptions: annual volatility of 63%, present value discount rate of 12% and dividend yield of 0%.

EMA Convertible Note

On August 29, 2018, the Company, entered into a securities purchase agreement with EMA Financial, LLC, for the private placement of a $75,000 convertible note. The note is unsecured, bears interest at a rate of 8% per annum, and matures on May 29, 2019; principal and interest is due upon maturity. In the event of default, the interest rate per annum increases to 22%.

Beginning in March 2019, EMA shall have the option to convert all or a portion of the amounts outstanding under the note, into shares of the Company's Common Stock. Conversions into Common Stock shall be calculated using a variable conversion price equal to 65% of the average of the three lowest closing bid prices for the shares over the prior ten day trading period immediately preceding the conversion.

Shares of common stock may not be issued pursuant to the note if, after giving effect to the conversion or issuance, the holder together with its affiliates would beneficially own in excess of 4.9% of the outstanding shares of common stock.

As of September 30, 2018, no principal or interest had been converted into shares of common stock and no cash payments of principal or interest had been made. The principal and accrued interest balances as of September 30, 2018 were $75,000 and $526, respectively.

Pursuant to a number of factors outlined in ASC Topic 815, Derivatives and Hedging, the conversion option in the note was deemed to include an embedded derivative that required bifurcation and separate accounting. As such, the Company ascertained the value of the conversion option as if separate from the convertible issuance and appropriately

recorded that value as a derivative liability. At August 29, 2018, the derivative liability associated with the note was $3,945.

The derivative liability associated with the note is subject to revaluation on a quarterly basis to reflect the market value change of the embedded conversion option. At September 30, 2018, the Company conducted a fair value assessment of the embedded derivative associated with the note. As a result of the fair value assessment, the Company recorded a $64,992 loss as "Change in fair value of derivatives and gain/(loss) on extinguishment of liabilities, net" in the Condensed Consolidated Statements of Operations for the three months ended September 30, 2018 to properly reflect the fair value of the embedded derivative of $68,937 as of September 30, 2018.

The fair value measurements rely primarily on Company-specific inputs and the Company’s own assumptions. With the absence of observable inputs, the Company determined these recurring fair value measurements reside primarily within Level 3 of the fair value hierarchy. The derivative associated with the Notes approximates management’s estimate of the fair value of the embedded derivative liability at September 30, 2018 based on using a Monte Carlo simulation following a Geometric Brownian Motion with the following assumptions: annual volatility of 72%, present value discount rate of 12% and dividend yield of 0%.

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NOTE 12. SERIES A PREFERRED STOCK

In June 2013, the Company entered into a Securities Purchase Agreement with an investor to sell an aggregate of 750,000 shares of Series A Preferred Stock at a price of $8.00 per share, resulting in gross proceeds of $6,000,000. This purchase agreement included warrants to purchase up to 13,125 shares of common stock of the Company. The transfer of cash and securities took place incrementally, the first closing occurring on June 17, 2013 with the transfer of 125,000 shares of Series A Preferred Stock and a warrant to purchase 2,187 shares of common stock for $1,000,000. The final closings took place in August 2013, with the transfer of 625,000 shares of Series A Preferred Stock and a warrant to purchase 10,938 shares of common stock for $5,000,000.

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 in 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. In addition, the Series A Preferred Stock contains a make-whole provision whereby, conversion or redemption of the preferred stock within 4 years of issuance will require dividends for the full four year period to be paid by the Company in cash or common stock (valued at 10% below market price, but not to exceed the lowest closing price during the applicable measurement period). This make-whole provision expired in June 2017 and future conversions and redemptions will be paid out with accrued dividends per the holding period of the shares of Series A Preferred stock. Please see Note 23 of the financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2017 for more information.

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, as adjusted, for 20 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 September 30, 2018, 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, at no cost, at a ratio of 1 preferred share into 1 common share (subject to standard ratable anti-dilution adjustments). Upon any conversion (whether at the option of the Company or the holder), the holder is entitled to receive any accrued but unpaid dividends.

On October 6, 2016, the Series A Holder entered into an exchange agreement with a private investor. Pursuant to the exchange agreement, beginning December 5, 2016, the investor has the option to exchange, from time to time, all or any portion of the October 2016 Convertible Notes (see Note 11) for outstanding shares of Series A Preferred Stock from the Series A Holder.

As of March 31, 2017, the investor had elected to exchange all outstanding October 2016 Convertible Notes, in accordance with the exchange agreement, resulting in the exchange of 104,785 shares of Series A Preferred Stock. As of March 31, 2017, the investor had also converted their 104,785 shares of Series A Preferred Stock, and the related make whole dividend, which resulted in the issuance of 173,947 shares of common stock.

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 September 30, 2018, there were 60,756 shares of Series A Preferred Stock outstanding and accrued and unpaid dividends of $325,888.

NOTE 13. SERIES K PREFERRED STOCK

On February 8, 2017, the Company, entered into a securities purchase agreement (“Series K SPA”) with a private investor, for the private placement of up to $20,000,000 of the Company’s newly designated Series K Convertible Preferred Stock (“Series K Preferred Stock”).

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Per the terms of the Series K SPA, the Company was scheduled to sell 1,000 shares of Series K Preferred Stock to the investor in exchange for $1,000,000 of gross proceeds on or before each of (i) February 24, 2017, (ii) March 27, 2017, (iii) April 27, 2017, (iv) May 27, 2017 and (v) June 27, 2017. The Company was also scheduled to sell 15,000 shares of Series K Preferred Stock to the investor in exchange for $15,000,000 of gross proceeds on or before July 27, 2017. As of September 30, 2018, the Company had sold 9,010 shares of Series K Preferred Stock in exchange for $9,010,000 in cash proceeds from the private investor. The Company does not expect to receive any more funding from this investor. The following summarizes the closings and proceeds received as of September 30, 2018:

Closing Period	Preferred Series K Shares Purchased	Closing Amount
Q1 2017	150	$150,000
Q2 2017	4,100	4,100,000
Q3 2017	4,760	4,760,000
	9,010	$9,010,000

The Series K Preferred Stock ranks senior to the Company’s common stock in respect to dividends and rights upon liquidation. The Series K Preferred Stock will not have voting rights and the holders of the Series K Preferred Stock will not be entitled to any fixed rate of dividends.

The shares of the Series K Preferred Stock will be convertible at the option of the holder into common stock at a fixed conversion price equal to $0.004. At no time may the Series K Preferred Stock be converted if the number of shares of common stock to be received by Investor pursuant to such conversion, when aggregated with all other shares of common stock then beneficially (or deemed beneficially) owned by Investor, would result in Investor beneficially owning more than 19.99% of all common stock then outstanding. As of September 30, 2018, the investor had converted all of the Series K Preferred Stock into shares of common stock. The following table summarizes the conversion activity of Series K Preferred Stock:

Conversion Period	Preferred Series K Shares Converted	Value of Series K Preferred Shares	Common Shares Issued
Q2 2017	3,200	$3,200,000	800,000
Q3 2017	3,000	$3,000,000	750,000
Q2 2018	2,810	$2,810,000	702,500
	9,010	$9,010,000	2,252,500

As of September 30, 2018, the investor owned approximately 8% of the Company's outstanding common stock.

The Company is required to redeem for cash any outstanding shares of the Series K Preferred Stock at a price per share equal to $1,000 plus any accrued but unpaid dividends (if any) thereon on the fifth anniversary of the date of the original issue of such shares.

Upon our liquidation, dissolution or winding up, holders of Series K Preferred Stock will be entitled to be paid out of our assets, prior to the holders of our common stock, an amount equal to $1,000 per share plus any accrued but unpaid dividends (if any) thereon.

Upon issuance, in accordance with ASC 480-10, the Series K Preferred Stock was classified as a liability on the Consolidated Balance Sheets. Pursuant to a number of factors outlined in ASC Topic 815, the conversion option in the Series K Preferred Stock was deemed to not require bifurcation or separate accounting treatment.

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NOTE 14. STOCKHOLDERS' DEFICIT

Common Stock

Reverse Stock Split

On July 19, 2018, the Company, filed a Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Company (the "Certificate of Amendment") with the Secretary of State of the State of Delaware to effect a reverse stock split of the Company's common stock, at a ratio of one-for-one thousand (the "Reverse Stock Split").

The Certificate of Amendment provides that the Reverse Stock Split became effective as of 5:00 p.m. Eastern Time on July 20, 2018 (the "Effective Time"), at which time every thousand shares of the Company's issued and outstanding Common Stock were automatically combined into one issued and outstanding share of Common Stock, without any change in the par value per share. The Certificate of Amendment provides that in the event a stockholder would otherwise be entitled to receive a fraction of a share of Common Stock, such stockholder shall receive one whole share of Common Stock in lieu of such fractional share and no fractional shares shall be issued.

Immediately following the Reverse Stock Split, the Company had approximately 19 million shares of Common Stock issued and outstanding. The number of authorized shares of the Company's Common Stock remains at 20 billion. The number of shares of the Company's Series A preferred stock outstanding was not affected by the Reverse Stock Split. However, the number of shares of Common Stock into which each outstanding share of Series A preferred stock is convertible will be adjusted proportionately as a result of the Reverse Stock Split. All outstanding RSUs, stock options, warrants and rights to purchase shares of Common Stock was adjusted proportionately.

Trading of the Company's Common Stock continued on the OTC Marketplace on a split-adjusted basis on July 23, 2018. The Company's Common Stock will temporarily trade under the symbol "ASTID," with a "D" added for 20 trading days to signify that the Reverse Stock Split has occurred. After 20 trading days, the trading symbol will revert back to ASTI. The new CUSIP number for the Common Stock following the Reverse Stock Split is 043635507.

At the Company's 2018 Annual Meeting of Stockholders, the Company's stockholders approved a reverse stock split of the Common Stock at a ratio ranging from one-for-one hundred to one-for-one thousand, with such ratio to be determined by the Company's Board of Directors in its discretion without further approval from the Company's stockholders. The Board of Directors of the Company subsequently authorized proceeding with the Reverse Stock Split at a ratio of one-for-one thousand.

At September 30, 2018, the Company had 20,000,000,000 shares of common stock, $0.0001 par value, authorized for issuance. Each share of common stock has the right to one vote. As of September 30, 2018, the Company had 29,538,241 shares of common stock outstanding. The Company has not declared or paid any dividends related to the common stock through September 30, 2018.

Preferred Stock

At September 30, 2018, the Company had 750,000 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 Outstanding
Series A	60,756
Series K	—

Series A Preferred Stock

Refer to Note 12 descriptions of Series A Preferred Stock.

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Series K Preferred Stock
Refer to Note 13 descriptions of Series K Preferred Stock.
Warrants

As of December 31, 2017, the Company had three outstanding warrants for an aggregate of 700,000 shares of common stock: i) a warrant for 250,000 shares of common stock which is exercisable at a fixed strike price of $4.00 and expires on July 24, 2018; ii) a warrant for 250,000 shares of common stock which is exercisable at a fixed strike price of $3.00 and expires on August 10, 2018; and iii) a warrant for 200,000 shares of common stock which is exercisable at a fixed strike price of $1.80 and expires on June 30, 2018. None of the warrants may not be exercised if, after giving effect to the exercise, the holder, together with its affiliates, would beneficially own in excess of 9.99% of the Company's outstanding shares of common stock. Please refer to Note 24 of the financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2017 for further information about each warrant issuance.

As of September 30, 2018, the warrants described above had expired unexercised.

The following table summarizes warrant activity:

	Warrant Shares	Warrant Weighted Average Exercise Price
Outstanding at December 31, 2016	—	$ —
Granted	700,000	$ 3.01
Exercised	—	$ —
Canceled/Expired	—	$ —
Outstanding at December 31, 2017	700,000	$ 3.01
Granted	—	$ —
Exercised	—	$ —
Canceled/Expired	(700,000)	$ 3.01
Outstanding at September 30, 2018	—	$ —
Exercisable at September 30, 2018	—	$ —

NOTE 15. EQUITY PLANS AND SHARE-BASED COMPENSATION
Share-Based Compensation: The Company measures share-based compensation cost at the grant date based on the fair value of the award and recognizes this cost as an expense over the grant recipients' requisite service periods for all awards made to employees, officers, directors and consultants.

The share-based compensation expense recognized in the Condensed Consolidated Statements of Operations was as follows:

	For the nine months ended September 30,	
	2018	2017
Share-based compensation cost included in:		
Research and development	$ 642	$ 17,555
Selling, general and administrative	24,180	91,163
Total share-based compensation cost	$ 24,822	$ 108,718

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The following table presents share-based compensation expense by type:

	For the nine months ended September 30,	
	2018	2017
Type of Award:		
Stock Options	$ 24,822	$ 82,388
Restricted Stock Units and Awards	—	26,330
Total share-based compensation cost	$ 24,822	$ 108,718

Stock Options: The Company recognized share-based compensation expense for stock options of approximately $25,000 to officers, directors and employees for the nine months ended September 30, 2018 related to stock option awards ultimately expected to vest. There were no stock options granted during the nine months ended September 30, 2018 or during the nine months ended September 30, 2017.
As of September 30, 2018, total compensation cost related to non-vested stock options not yet recognized was approximately $13,000 which is expected to be recognized over a weighted average period of approximately 0.7 year, 15 shares were vested or expected to vest and 51 shares remained available for future grants under the Option Plan.
Restricted Stock: The Company did not recognized share-based compensation expense related to restricted stock grants for the nine months ended September 30, 2018. During the nine months ended September 30, 2017, the Company recognized approximately $26,000 in share-based compensation related to restricted stock grants. There were no restricted stock grants for the nine months ended September 30, 2018 or the nine months ended September 30, 2017.

As of September 30, 2018, there was no unrecognized share-based compensation expense from unvested restricted stock, no shares were expected to vest in the future, and 519 shares remained available for future grants under the Restricted Stock Plan.

NOTE 16. SUBSEQUENT EVENTS

Offering of Secured Convertible Note

On October 2, 2018, the Company, issued a $150,000 convertible note, in a private placement to Global Ichiban Ltd., in exchange for $125,000 of gross proceeds.

The note is secured, bears interest at a rate of 12% per annum, and matures on October 2, 2019. All principal and interest are due upon maturity.

The note contains standard and customary events of default including but not limited to: (i) failure to make payments when due under the note, and (ii) bankruptcy or insolvency of the Company. In the event of default, the interest rate increases to 18% per annum.

Beginning six months after the date of issue, the Company shall have the option to make payment to all or a portion of the amounts outstanding under the note in shares of the Company's Common Stock. Payment in Common Stock shall be calculated using a variable conversion price equal to the lesser of (i) $0.20 or (ii) 75% of the lowest closing bid price for the shares over the prior five day trading period immediately preceding the conversion.

Shares of Common Stock may not be issued pursuant to the note if, after giving effect to the conversion or issuance, the holder together with its affiliates would beneficially own in excess of 9.9% of the outstanding shares of the

Company’s Common Stock.

Offering of Promissory Note

On October 16, 2018, the Company, entered into a securities purchase agreement with Power Up Lending Group LTD for the private placement of a $42,500 Convertible Promissory Note in exchange for $42,500 of gross proceeds.

The note bears interest at a rate of 8% per annum and matures on October 16, 2019. All principal and interest is due upon maturity.

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The note contains standard and customary events of default including but not limited to: (i) failure to make payments when due under the note, and (ii) bankruptcy or insolvency of the Company. In the event of default, the interest rate increases to 22% per annum.

Beginning in March 2019, Power Up shall have the option to convert all or a portion of the amounts outstanding under the note, into shares of the Company's Common Stock. Conversions into Common Stock shall be calculated using a variable conversion price equal to 65% of the average of the three lowest closing bid prices for the shares over the prior ten day trading period immediately preceding the conversion.

Shares of Common Stock may not be issued pursuant to the note if, after giving effect to the conversion or issuance, the holder together with its affiliates would beneficially own in excess of 4.99% of the outstanding shares of Common Stock.

Offering of Secured Promissory Note

On October 22, 2018, the Company issued a $150,000 promissory note, in a private placement to Global Ichiban Ltd., in exchange for $125,000 of gross proceeds.

The note is secured, bears interest at a rate of 12% per annum, and matures on October 22, 2019. All principal and interest are due upon maturity.

The note contains standard and customary events of default including but not limited to: (i) failure to make payments when due under the note, and (ii) bankruptcy or insolvency of the Company.

Beginning six months after the date of issue, the Company shall have the option to make payments on the note in the form of shares of the Company's Common Stock. Payments in the form of Common Stock shall be calculated using a variable conversion price equal to the lowest of (i) $0.20 or (ii) 75% of the lowest closing bid price for the shares over the prior five day trading period immediately preceding the conversion.

Shares of Common Stock may not be issued pursuant to the note if, after giving effect to the conversion or issuance, the holder together with its affiliates would beneficially own in excess of 9.9% of the outstanding shares of the Company’s Common Stock.

Offering of Secured Convertible Note

On November 5, 2018, the Company entered into a securities purchase agreement with St. George Investments LLC, for the private placement of a $1,220,000 convertible note.

On November 7, 2018, the Company received $200,000 of gross proceeds from the offering of the note. In addition, the Company received additional consideration for the note in the form of eight separate promissory notes of St. George (the “Investor Notes”) having an aggregate principal amount of $800,000.

The Company may receive additional cash proceeds of up to an aggregate of $800,000 through cash payments made from time to time by St. George of principal and interest under the eight Investor Notes. Under certain circumstances, both the Company and the Investor are entitled to offset amounts owed under the note against the corresponding amounts owed under the Investor Notes. Each of the Investor Notes is unsecured, bears interest at a rate of 10% per annum, and matures on November 5, 2019. All principal and interest is due upon maturity. The Investor Notes contain standard and customary events of default including but not limited to failure to make payments when due under the

Investor Notes.

The aggregate principal amount of the note is divided into nine tranches, which tranches correspond to (i) the cash funding received on November 7, 2018 and (ii) the principal amounts of the eight Investor Notes.

The note is secured, bears interest at a rate of 10% per annum and matures on November 5, 2019. All principal and interest are due upon maturity.

The note contains standard and customary events of default including but not limited to: (i) failure to make payments when due under the Note, and (ii) bankruptcy or insolvency of the Company. In the event of default, the interest rate increases to 22% per annum.

Beginning six months after the date of issue, Investor shall have the option to redeem all or a portion of the amounts outstanding under the note. At St. George's option, redemption amounts are payable by the Company in the form of (x) cash or (y) conversion

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of such amounts into shares of the Company's common stock. Conversions into common stock shall be calculated using a variable conversion price equal to 60% of the average of the two lowest closing bid price for the shares over the prior ten day trading period immediately preceding the conversion.

Shares of common stock may not be issued pursuant to the note if, after giving effect to the conversion or issuance, the holder together with its affiliates would beneficially own in excess of 4.99% of the outstanding shares of the Company’s common stock.

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

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

Overview

We are a company formed to commercialize flexible photovoltaic modules using our proprietary technology. For the three and nine months ended September 30, 2018, we generated $8,843 and $476,831 of revenue from product sales, respectively. During the nine months ended September 30, 2018, we generated $35,642 in revenue from a government contract.

In 2012, we evolved our business model to include B2C, solution based, PV integrated consumer electronics to our off grid high value solar power generation strategy. In June of 2012, we launched our new line of consumer products under the EnerPlex™ brand, and introduced our first product, the Surfr™, a battery and solar case for the Apple® iPhone® 4/4S smart phone, featuring our ultra-light CIGS thin film technology integrated directly into the case. The case incorporates our ultra-light and thin PV module into a sleek, protective iPhone 4/4S case, along with a thin, life extending, lithium-polymer battery. The case adds minimal weight and size to an iPhone smartphone, yet provides supplemental charging when needed. In August of 2012, we announced the launch of the second version of the Surfr for the Samsung® Galaxy S® III, which provides 85% additional battery life.

In December 2012, we launched the EnerPlex Kickr™ and EnerPlex Jumpr™ product series. The Kickr IV is an extremely portable, compact and durable solar charging device, approximately seven inches by seven inches when folded, and weighs less than half a pound. The Kickr IV provides 6.5 watts of regulated power that can help charge phones, digital cameras, and other small USB enabled devices. The Kickr IV is ideal for outdoor activities such as camping, hiking and mountain climbing as well as daily city use. To complement the Kickr IV, we also released the Jumpr series of portable power banks in December of 2012. The Jumpr series provides a compact power storage solution for those who need to recharge their portable electronics while on the go.

During 2013, the EnerPlex brand rapidly expanded with the addition of two new product series as well as over fifteen new products. In 2013, we introduced further additions to the Jumpr line of portable power banks; releasing the Jumpr Mini and Jumpr Stack in August and the Jumpr Max in September. The latest additions to the Kickr line of portable solar chargers, the Kickr I and Kickr II, were introduced in August at the Outdoor Retailer show. Furthermore, in October 2013, we released our first series of solar integrated backpacks, the EnerPlex Packr™. The Packr is a functional backpack ideal for charging mobile electronic devices while on the go. Also in October of 2013, we introduced the Surfr battery and solar case for the Samsung Galaxy S® 4, and in December, we introduced the Surfr battery and solar case for Apple’s iPhone® 5. To complement our flagship product lines, we added an assortment of accessories, all of which can be integrated into the EnerPlex ecosystem of products; such as the LED wand which can be easily plugged into a Jumpr power bank to provide hours of light, or the Travel Adaptor, which enables consumers to charge up their Jumpr power banks from a traditional outlet anywhere in the world.

Beginning in 2013, we aggressively pursued new distribution channels for the EnerPlex brand; these activities have led to placement in a variety of high-traffic ecommerce venues such as www.amazon.com, www.walmart.com, www.brookstone.com, www.newegg.com, as well as many others including our own e-commerce platform at

www.goenerplex.com. The April 2013 placement of EnerPlex products at Fry's Electronics, a US West Coast consumer electronics retailer, represented the company's first domestic retail presence; EnerPlex products were carried in all of Fry's 34 superstores across 9 states.

Throughout 2014, EnerPlex released multiple additions to the Jumpr line of products: including the Jumpr Stack 3, 6 and 9; innovative batteries equipped with tethered micro-USB and Apple Lightning cables with a revolutionary Stack and Charge design, enabling batteries to be charged simultaneously when they are placed on top of one another. Also released in 2014 were the Jumpr Slate series, products which push the boundaries of how thin batteries can be; the Jumpr Slate 10k, at less than 7mm thick was the thinnest lithium polymer battery available when it was released. The Jumpr Slate 5k and 5k Lightning each come with a tethered micro-USB and Lightning cable respectively; freeing consumers from worrying about toting extra cables with them while on the move.

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At Outdoor Retailer 2014, EnerPlex debuted the Generatr Series. The Generatr 1200 and Generatr 100 are lithium-ion based, large format batteries. Lighter and smaller than competitors, the Generatr Series are targeted for consumers who require high-capacity, high-output batteries which remain ultra-portable. Also debuted at Outdoor Retailer was the Commandr 20, a high output solar charger designed specifically to integrate with and charge the Generatr series, allowing consumers to stay out longer without needing to charge their Generatr batteries from a traditional power source. In August 2014, the Kickr II+ and IV+ were also announced, these products represent another evolution in EnerPlex's line of solar products; integrated with a 500mAh battery the Kickr II+ and IV+ are able to provide a constant flow of power even when there are intermittent disruptions in sunlight.

During 2015, we reached an agreement with EVINE Live, one of the premier home shopping networks with TV programming that reaches over 87 million US homes to begin selling EnerPlex products during their broadcasts. EnerPlex launched the Generatr S100 and select other products exclusively with EVINE, EnerPlex also launched the Generatr 1200 launched exclusively with EVINE for a limited period. Also during 2015, EnerPlex expanded its relationship with The Cellular Connection to include over 450 Verizon Wireless Premium Retail Stores; launched its products with two world recognized retailers; The Sports Authority and Cabela's; and launched its products with GovX; the premier online shopping destination for Military, Law Enforcement and Government agencies. Internationally, EnerPlex products became available in the United Kingdom via the brand's launch with 172 Maplin's stores throughout the country.

In 2016, EnerPlex launched the new emergency sales vertical, partnering with Emergency Preparedness eCommerce leader, Emergency Essentials, and we announced new breakthroughs in the Company's line of high-voltage solar products, designed specifically for high-altitude and space markets. Also during the first quarter of 2016, the Company announced the launch of select products on the GSA Advantage website; allowing Federal employees, including members of all branches of the US Military, to directly purchase Ascent and EnerPlex products including: the MilPak E, Commandr 20, Kickr 4 and WaveSol solar modules.

In January 2017, Ascent was awarded a contract to supply high-voltage SuperLight thin-film CIGS PV blankets. These 50W, fully laminated, flexible blankets were manufactured using a new process that was optimized for high performance in near-space conditions at elevated temperatures, and are custom designed for easy modular integration into series and parallel configurations to achieve the desired voltage and current required for such application.

In February 2017 Ascent announced the discontinuation of our EnerPlex consumer business by disposing of the EnerPlex brand, and related intellectual properties and trademarks, to our battery product supplier, Sun Pleasure Co. Limited ("SPCL"). This transaction was completed in an effort to better allocate our resources and to continue to focus on our core strength in the high-value specialty PV market. Following the transfer, Ascent will no longer be producing or selling Enerplex-branded consumer products. Ascent will focus on its photovoltaic business and will supply solar PV products to SPCL, supporting the continuous growth of EnerPlex™ with Ascent's proprietary and award-winning thin-film solar technologies and products.

During the third quarter of 2017, Ascent Solar was selected by Energizer to develop and supply solar panels for their PowerKeep line of solar products, and in November 2017, Ascent introduced the next generation of our USB-based portable power systems with the XD™ series. The first product to be introduced was the XD-12 which, like previous products, is a folding, lightweight, easily stowable, PV system with USB power regulation. Unique to this generation of PV portable power is more PV power (12 Watts) and a 2.0 Amp smart USB output to enable the XD-12 to charge most smartphones, tablets, and USB-enabled devices as fast as a wall outlet. The enhanced smart USB circuit determines the maximum power the device is able to receive, and ensures the best possible charging performance directly from the sun.

Also in 2017, for a space customer, Ascent manufactured a new micro-module, approximately 12.8mm x 50mm (0.5in x 2.0in) in size that is ideal for both laboratory-scale environmental testing, and for subsequent integration into flight experiments.

In February 2018, the Company introduced the second product in our XD™ series. Delivering up to 48 Watts of solar power, the durable and compact Ascent XD-48 Solar Charger is the ideal solution for charging many portable electronics and off-grid power systems. The XD-48's versatility allows it to charge both military and consumer electronics directly from the sun wherever needed. Like the XD-12, the XD-48 has a compact and portable design, and its rugged, weather-resistant construction withstands shocks, drops, damage and even minor punctures to power through the harshest conditions.

During the third quarter of 2018, we greatly reduced production in an effort to meet cash flow challenges. We stopped manufacturing PV in anticipation of projects and started producing PV on a per project basis. We continue to design PV integrated consumer electronics as well as portable power applications for commercial and military users. Due to the high durability enabled by the monolithic integration employed by our technology, the capability to customize modules into different form factors and the industry leading light weight and flexibility provided by our modules, we believe that the potential applications for our products are numerous.

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Commercialization and Manufacturing Strategy

Our proprietary manufacturing process deposits multiple layers of materials, including a thin film of highly efficient Copper-Indium-Gallium-diSelenide ("CIGS") semiconductor material, on a flexible, lightweight, plastic substrate using a roll-to-roll manufacturing process and then laser patterns the layers to create interconnected PV cells, or PV modules, in a process known as monolithic integration. Our monolithic integration techniques enable us to form complete PV modules with less or no costly back end assembly of intercell 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 believe our technology and manufacturing process, which results in a lighter, flexible module package, provides us with unique market opportunities relative to both the crystalline silicon ("c-Si") based PV manufacturers that currently lead the PV market, as well as other thin-film PV manufacturers that use substrate materials such as glass, stainless steel or other metals that can be heavier and more rigid than plastics.

Currently, we are producing OEM and consumer oriented products focusing on charging devices powered by our solar modules. Products in these markets are priced based on the overall value proposition rather than a commodity-style price per watt basis. We continue to develop new consumer products and we have adjusted our utilization of our equipment to meet our near term forecast sales. 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.

Related Party Activity

On February 2, 2012, we announced the appointment of Victor Lee as President and Chief Executive Officer. Mr. Lee had served on our Board of Directors since November 2011 and is currently the managing director of Tertius Financial Group Pte Ltd (TFG), an investment firm located in Singapore.

As of September 30, 2018, TFG owns 333,334 shares of the Company's common stock, which represents less than 1% of the outstanding shares of common stock of the Company as of September 30, 2018. There are no registration rights relating to these shares.

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 ability to generate customer acceptance of and demand for our products;
- Successful ramping up of commercial production on the equipment installed;
- Our products are successfully and timely certified for use in our target markets;
- Successful operating of production tools to achieve the efficiencies, throughput and yield necessary to reach our cost targets;
- The products we design are saleable at a price sufficient to generate profits;
- Our ability to raise sufficient capital to enable us to reach a level of sales sufficient to achieve profitability on terms favorable to us;
- Effective management of the planned ramp up of our domestic and international operations;
- Our ability to successfully develop and maintain strategic relationships with key partners, including OEMs, system integrators, distributors, retailers and e-commerce companies, who deal directly with end users in our target markets;
- Our ability to maintain the listing of our common stock on the OTC Market;

- Our ability to implement remediation measures to address material weaknesses in internal control;
- Our ability to achieve projected operational performance and cost metrics;
- Our ability to enter into commercially viable licensing, joint venture, or other commercial arrangements; and
- Availability of raw materials.

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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, 2017. There have been no significant changes to our accounting policies as of September 30, 2018.

Recent Accounting Pronouncements

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606). The update will establish a comprehensive revenue recognition standard for virtually all industries in GAAP. ASU 2014-09 will change the amount and timing of revenue and cost recognition, implementation, disclosures and documentation. In August 2015, the FASB issued ASU No. 2015-14, Revenue from Contracts with Customers (Topic 606): Deferral of Effective Date. The amendments in ASU 2015-14 defer the effective date of ASU 2014-09 for all entities by one year. ASU 2014-09 is now effective for the Company in fiscal year 2018. The implementation of ASU 2014-09 did not have a material effect on the Company's consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842). ASU 2016-02 requires lessees to recognize all leases, including operating leases, on the balance sheet as a lease asset or lease liability, unless the lease is a short-term lease. ASU 2016-02 also requires additional disclosures regarding leasing arrangements. ASU 2016-02 is effective for interim periods and fiscal years beginning after December 15, 2018, and early application is permitted. The Company continues to evaluate the impact, that the adoption of this guidance will have on its consolidated financial statements.

In May 2017, the FASB issued ASU No. 2017-09, Compensation - Stock Compensation (Topic 718). ASU 2017-09 provides guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting in Topic 718. ASU 2017-09 is effective for interim periods and fiscal years beginning after December 15, 2017, and early application is permitted. The implementation of ASU 2017-09 did not have a material effect on the Company's consolidated financial statements.

In July 2017, the FASB issued ASU No. 2017-11 Part I, Earnings Per Share (Topic 260), Distinguishing Liabilities from Equity (Topic 480), Derivatives and Hedging (Topic 815). ASU 2017-11 Part I changes the classification analysis of certain equity linked financial instruments with down round features. ASU 2017-11 Part I is effective, for public business entities, for interim periods and fiscal years beginning after December 15, 2018, and early application is permitted. The Company is currently evaluating the impact, if any, that the adoption of this guidance will have on its consolidated financial statements.

In June 2018, the FASB issued ASU No. 2018-07, Compensation-Stock Compensation (Topic 718): Improvements to Non-employee Share-Based Payment Accounting, which simplifies the accounting for share-based payments to non-employees by aligning it with the accounting for share-based payments to employees, with specified exceptions. This standard is effective for the Company in the first quarter of 2020, and early adoption is permitted. The Company expects the adoption of this standard will not have a material impact on its consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework-Changes to the Disclosure Requirements for Fair Value Measurement, which modifies the disclosure

requirements of fair value measurements. This standard is effective for the Company in the first quarter of 2020, and early adoption is permitted. The Company is currently evaluating the impact of the effect adoption of this standard will have on its consolidated financial statements.

Other new pronouncements issued but not effective as of September 30, 2018 are not expected to have a material impact on the Company’s condensed consolidated financial statements.

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Results of Operations

Comparison of the Three Months Ended September 30, 2018 and 2017

Revenues. Our net revenues were approximately $32,000 for the three months ended September 30, 2018, compared to $242,000 for the three months ended September 30, 2017, a decrease of $210,000. The decrease is due to decreased sales of our private sector PV products of approximately $233,000 compared to the three months ended September 30, 2017. This decrease was slightly offset by sales of our PV products under a government contract of approximately $23,000, during the three months ended September 30, 2018, for which we had no revenue during three months ended September 30, 2017.

Cost of revenues. Our Cost of revenues for the three months ended September 30, 2018 was approximately $0, compared to $535,000 for the three months ended September 30, 2017, a decrease of $535,000. The decrease is primarily attributed to a decrease in materials and labor costs as a result of a decrease in production as compared to the third quarter in the prior year. As discussed above, production was greatly reduced during the third quarter of 2018. Management believes our factory is currently significantly under-utilized, and a substantial increase in revenue would result in marginal increases to overhead.

Research, development and manufacturing operations. Research, development and manufacturing operations costs were approximately $517,000 for the three months ended September 30, 2018, compared to approximately $1,312,000 for the three months ended September 30, 2017, a decrease of approximately $795,000. 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 and governmental contracts. The decrease of personnel and facility related costs, resulting from the shut down of production, is the primary cause for the reduction of research, development, and manufacturing operation costs during the three months ended September 30, 2018.

Selling, general and administrative. Selling, general and administrative expenses were approximately $608,000 for the three months ended September 30, 2018, compared to $1,342,000 for the three months ended September 30, 2017, a decrease of approximately $734,000. The following factors contributed to the majority of the decrease in selling, general, and administrative expenses during the three months ended September 30, 2018:

1. Personnel and facility related costs decreased approximately $722,000 during the three months ended September 30, 2018, as compared to the three months ended September 30, 2017. The overall decrease in personnel related costs was primarily due a lower headcount for the three months ended September 30, 2018, as compared to the three months ended September 30, 2017 as well as the decreased use of consultants and contractors during the same period.

2. Marketing and related expenses decreased approximately $41,000 during the three months ended September 30, 2018, as compared to the three months ended September 30, 2017. The decrease in Marketing and related expenses is due to reduced marketing, advertising, and promotional activities during the three months ended September 30, 2018, compared to the third quarter of 2017, which is the direct result of reducing our marketing budget to focus more on the development of our PV.

3. Legal expenses decreased approximately $52,000 during the three months ended September 30, 2018, as compared to the three months ended September 30, 2017. The primary reasons for the decrease is due decreased general legal expenses related to financing efforts as compared to the quarter ended September 30, 2017.

4. Public company expenses increased approximately $66,000 during the three months ended September 30, 2018, as compared to the three months ended September 30, 2017. The increase is mostly due to the fees related to the processing of our reverse stock split.

5. During the three months ended September 30, 2018, bad debt expense increased approximately $15,000. This increase was the result of analysis on the recoverability of our trade receivables, in accordance with Company policies, during the three months ended September 30, 2018 as compared to the three months ended September 30, 2017.

Other Income, net. Other income was approximately $1,567,000 for the three months ended September 30, 2018, compared to approximately $902,000 for the three months ended September 30, 2017, an increase of approximately $665,000. The following factors contributed to the increase in other expense during the three months ended September 30, 2018:

1. During the three months ended September 30, 2018, the company realized a gain on the sale of assets of approximately $13,000, compared to a loss on the sale of assets of approximately $15,000 during the third quarter of 2017; an increase of approximately $28,000.

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2. During the three months ended September 30, 2017, the Company recorded warrant expense of approximately $336,000. There was no such expense during the three months ended September 30, 2018.

3. Gains and losses on change in fair value of derivatives and on extinguishment of liabilities, was a net gain of approximately $3,285,000 during the third quarter of 2018, as compared to an approximate net gain of $2,151,000 for the third quarter of 2017. The improvement of approximately $1,133,000 in this non-cash item is attributable to a gain of approximately $3,858,000 on the change in fair value of our embedded derivative instruments during the three months ended September 30, 2018, compared to an approximate gain $1,006,000 in 2017, offset by a reduction in the loss from extinguishment of liabilities of approximately $1,719,000, related to conversions and redemptions of certain convertible notes and preferred stock, for the three months ended September 30, 2018, as compared to the three months ended September 30, 2017.

4. Interest expense increased approximately $832,000, as compared the third quarter of 2017. The increase is primarily due to an increase of non-cash interest expense related to convertible debt and promissory notes.

Net Income/Loss. Our Net Income was approximately $383,000 for the three months ended September 30, 2018, compared to a Net Loss of approximately $2,355,000 for the three months ended September 30, 2017, an improvement of approximately $2,739,000.
The increase in Net Income for the three months ended September 30, 2018 can be summarized in variances in significant account activity as follows:

	Increase to Net Income For the Three Months Ended September 30, 2018 Compared to the Three Months Ended September 30, 2017
Revenues	$ (210,000)
Cost of Revenue	535,000
Research, development and manufacturing operations	
Personnel and Facility Related Expenses	795,000
Selling, general and administrative expenses	
Personnel, administrative, and facility Related Expenses	722,000
Marketing Related Expenses	41,000
Legal Expenses	52,000
Public Company Costs	(66,000)
Bad debt and Settlement expense	(15,000)
Depreciation and Amortization Expense	219,000
Other Income / (Expense)	
Other income	28,000
Interest Expense	(831,000)

Warrant Expense	336,000
Non-Cash Change in Fair Value of Derivatives and Gain/Loss on Extinguishment of Liabilities, net	1,133,000
Increase to Net Income	$ 2,739,000

Comparison of the Nine Months Ended September 30, 2018 and 2017

Revenues. Our net revenues were approximately $513,000 for the nine months ended September 30, 2018, compared to $548,000 for the nine months ended September 30, 2017, a decrease of $35,000. The decrease is due to decreased sales of our private sector PV products, offset by government contract revenue of approximately $36,000 during the nine months ended September 30, 2018, for which we had no revenue during the nine months ended September 30, 2017.

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Cost of revenues. Our Cost of revenues for the nine months ended September 30, 2018 was approximately $504,000, compared to $2,323,000 for the nine months ended September 30, 2017, a decrease of $1,820,000. The decrease is primarily attributed to a decrease in materials and labor costs as a result of a decrease in production as compared to the same period in the prior year. Cost of revenues for the nine months ended September 30, 2018 is comprised of materials and freight of approximately $79,000 and direct labor and and overhead of approximately $424,000. Management believes our factory is currently significantly under-utilized, and a substantial increase in revenue would result in marginal increases to overhead.

Research, development and manufacturing operations. Research, development and manufacturing operations costs were approximately $2,390,000 for the nine months ended September 30, 2018, compared to approximately $3,830,000 for the nine months ended September 30, 2017, a decrease of approximately $1,440,000. 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 and governmental contracts. The following factors contributed to the decrease in research, development, and manufacturing operations expenses during the nine months ended September 30, 2018:

1. Personnel and facility related expenses decreased approximately $1,340,000, as compared to the same time period of 2017. The decrease in personnel and facility related costs was primarily due to a reduction in headcount and the use of contractors.

2. Materials and equipment related expenses, decreased approximately $100,000, as compared to the same time period of 2017. The decrease was due to a decrease in production of research and development products.

Inventory impairment costs. Due to the sale of the EnerPlex brand and the re-purposing of our work-in-process inventory, we were unable to estimate the recoverability of all of our work-in process inventory values, resulting in a lower-cost-to-market analysis and reserve for impairment. An expense of approximately $364,000 was recorded to inventory impairment costs for the nine months ended September 30, 2017.

Selling, general and administrative. Selling, general and administrative expenses were approximately $2,244,000 for the nine months ended September 30, 2018, compared to $4,512,000 for the nine months ended June 30, 2017, a decrease of approximately $2,268,000. The following factors contributed to the decrease in selling, general, and administrative expenses during the nine months ended June 30, 2018:

1. Personnel and facility related costs decreased approximately $1,869,000 during the nine months ended September 30, 2018, as compared to the nine months ended September 30, 2017. The overall decrease in personnel related costs was primarily due a lower headcount for the nine months ended September 30, 2018, as compared to the nine months ended September 30, 2017 as well as the decreased use of consultants and contractors during the same period.

2. Marketing and related expenses decreased approximately $140,000 during the nine months ended September 30, 2018, as compared to the nine months ended September 30, 2017. The decrease in Marketing and related expenses is due to reduced marketing, advertising, and promotional activities during the nine months ended September 30, 2018, compared to the same time period of 2017, which is the direct result of reducing our marketing budget to focus more on the development of our PV.

3. Legal expenses decreased approximately $11,000 during the nine months ended September 30, 2018, as compared to the nine months ended September 30, 2017. The primary reasons for the decrease is due to decreased general legal expenses related to financing efforts as compared to the nine months ended ended September 30, 2017, as well as decreases in legal expenses related to our patent activity as compared to the same period of 2017.

4. Public company expenses decreased approximately $53,000 during the nine months ended September 30, 2018, as compared to the nine months ended September 30, 2017. This decrease is primarily due to reduced filing fees related to financing agreements in 2018, as compared to the same period in the previous year.

5. Bad debt and settlement expenses decreased approximately $195,000 during the nine months ended September 30, 2018, as compared to the nine months ended September 30, 2017. During 2017 we recorded payments and settlements against existing reserves. We did not have settlement expenses during the same period of 2018.

Other Expense, net. Other expense was approximately $2,666,000 for the nine months ended September 30, 2018, compared to approximately $1,156,000 for the nine months ended June 30, 2017, an increase of approximately $1,510,000. The following factors contributed to the increase in other expense during the nine months ended September 30, 2018:

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1. Interest expense increased approximately $141,000, as compared the nine months ended September 30, 2017. The increase is primarily due to an decrease of non-cash interest expense related to convertible debt and promissory notes.

2. During the six months ended September 30, 2017, the Company recorded net other income of approximately $564,000. This income was comprised of an approximate $1,215,000 increase in gain on sale of assets after the transfer of the EnerPlex IP, offset by induced conversion costs of approximately $636,000 on several of the financial instruments. During the nine months ended September 30, 2018, the Company recorded net other income of approximately $13,000, primarily as the result of a sale of assets; an income reduction of approximately $551,000.

3. During the nine months ended September 30, 2017, the Company recorded warrant expense of approximately $336,000. There was no such expense during the nine months ended September 30, 2018.

4. Gains and losses on change in fair value of derivatives and on extinguishment of liabilities, was a net gain of approximately $2,600,000 during the nine months ended September 30, 2018, as compared to an approximate net gain of $3,753,000 for the nine months ended September 30, 2017. The change of approximately $1,154,000 in this non-cash item is attributable to a gain of approximately $4,532,000 on the change in fair value of our embedded derivative instruments during the nine months ended September 30, 2018, compared to an approximate gain $6,193,000 in 2017, offset by a reduction in the loss from extinguishment of liabilities of approximately $508,000, related to conversions and redemptions of certain convertible notes and preferred stock, for the nine months ended September 30, 2018, as compared to the the nine months ended September 30, 2017.

Net Loss. Our Net Loss was approximately $7,580,000 for the nine months ended September 30, 2018, compared to a Net Loss of approximately $12,649,000 for the nine months ended September 30, 2017, an improvement of approximately $5,069,000.

The decrease in Net Loss for the nine months ended September 30, 2018 can be summarized in variances in significant account activity as follows:

	Decrease (Increase) to Net Loss For the Nine Months Ended September 30, 2018 Compared to the Nine Months Ended September 30, 2017
Revenues	$ (35,000)
Cost of Revenue	1,820,000
Research, development and manufacturing operations	
Materials and Equipment Related Expenses	99,000
Personnel and Facility Related Expenses	1,340,000
Inventory impairment costs	364,000
Selling, general and administrative expenses	
Personnel, administrative, and facility Related Expenses	1,869,000
Marketing Related Expenses	140,000
Legal Expenses	11,000

Public Company Costs	53,000
Bad debt and Settlement expense	195,000
Depreciation and Amortization Expense	723,000
Other Income / (Expense)	
Other income	(551,000)
Interest Expense	(141,000)
Warrant Expense	336,000
Non-Cash Change in Fair Value of Derivatives and Gain/Loss on Extinguishment of Liabilities, net	(1,154,000)
Decrease (Increase) to Net Loss	$ 5,069,000

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Liquidity and Capital Resources
As of September 30, 2018, we had approximately $58,000 in cash and cash equivalents.

During the nine months ended September 30, 2018 and the year ended December 31, 2017, the Company entered into multiple financing agreements to fund operations. Further discussion of these transactions can be found in Notes 7 through 13, and Note 16 of the financial statements presented as of, and for, the nine months ended, September 30, 2018, and in Notes 8 through 22 and Note 30 of the financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2017.

We have continued limited PV production at our manufacturing facility. We do not expect sales revenue and cash flows will be sufficient to support operations and cash requirements until we have fully implemented our new consumer products strategy. Changes in the level of expected operating losses, the timing of planned capital expenditures or other factors may negatively impact cash flows and reduce current cash and investments faster than anticipated. During the nine months ended September 30, 2018, we used approximately $3,043,000 in cash for operations. Our primary significant long term cash obligation consists of a note payable of approximately $5,434,000 to a financial institution secured by a mortgage on its headquarters and manufacturing building in Thornton, Colorado. Total payments of approximately $131,000, including principal and interest, will come due in the remainder of 2018.

Additional projected product revenues are not anticipated to result in a positive cash flow position for the year 2018 overall and, as of September 30, 2018, we have negative working capital. As such, cash liquidity sufficient for the year ending December 31, 2018 will require additional financing.

The Company continues to accelerate sales efforts related to its PV strategy by focusing on the Company's propriety technology. The Company has begun 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 substantial doubt as to the Company’s ability to continue as a going concern.

Statements of Cash Flows Comparison of the Nine Months Ended September 30, 2018 and 2017
For the nine months ended September 30, 2018, our cash used in operations was approximately $3,043,000 compared to approximately $10,710,000 for the nine months ended September 30, 2017, a decrease of approximately $7,667,000. The decrease is primarily due to the reduction of headcount and production, coupled with the transition out of retail consumer electronics markets and the sale of the EnerPlex brand. For the nine months ended September 30, 2018, our cash used in investing activities was approximately $4,000 as compared to our cash provided by investing activities of approximately $93,000, a decrease of approximately $88,000. This decrease is the result of investing in intellectual property ("IP") during the first quarter of 2018 and the sales of the EnerPlex brand IP during the first quarter of 2017. During the nine months ended September 30, 2018, negative operating cash flows of approximately $3,043,000 were funded through $3,007,000 of funding received from promissory notes, and the use of cash customer receivables.

Off Balance Sheet Transactions
As of September 30, 2018 and December 31, 2017, we did not have any off balance sheet arrangements as defined in Item 303(a)(4)(ii) of SEC Regulation S-K.

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Item 3. Quantitative and Qualitative Disclosures About Market Risk

Foreign Currency Exchange Risk

Historically, we have purchased manufacturing equipment internationally, which exposes us to foreign currency risk.

From time to time we enter into foreign currency fair value hedges utilizing forward contracts designed to match scheduled contractual payments to equipment suppliers. Our objective is to fix the dollar amount of our foreign currency denominated manufacturing equipment purchases at the time of order. Although our hedging activity is designed to fix the dollar amount to be expended, the asset purchased is recorded at the spot foreign currency rate in effect as of the date of the payment to the supplier. The difference between the spot rate and the forward rate has been reported as gain or loss on forward contract. We cannot accurately predict future exchange rates or the overall impact of future exchange rate fluctuations on our business, results of operations and financial condition. All forward contracts entered into by us have been settled on the contract settlement dates, the last of which was settled in December 2009.

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. As of September 30, 2018, our cash equivalents consisted only of federally insured operating and savings accounts held with financial institutions. From time to time we hold money market funds, investments in U.S. government securities and high quality corporate securities. The primary objective of our investment activities is to preserve principal and provide liquidity on demand, while at the same time maximizing the income we receive from our investments without significantly increasing risk. The direct risk to us associated with fluctuating interest rates is limited to our investment portfolio and we do not believe that a change in interest rates will have a significant impact on our financial position, results of operations or cash flows.

Credit Risk

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

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our reports filed or submitted under the Securities Exchange Act of 1934, as amended (the “Exchange Act”) is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission (SEC) rules and forms. Our management, including our Chief Executive Officer and interim Principal Financial Officer, conducted an evaluation required by Rules 13a-15 and 15d-15 under the Exchange Act of the effectiveness of our disclosure controls and procedures as defined in Rules 13a-15 and 15d-15 under the Exchange Act as of September 30, 2018. Based on this evaluation, our Chief Executive Officer and interim Principal Financial

Officer concluded that as of September 30, 2018, our disclosure controls and procedures were effective.

Changes in Internal Control Over Financial Reporting

There were no other changes in internal control over financial reporting during the nine months ended September 30, 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

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PART II. OTHER INFORMATION

Item 1. Legal Proceedings

None.

Item 1A. Risk Factors

In addition to the other information set forth in this report, you should carefully consider the factors discussed in the updated risk factors in our Annual Report on Form 10-K filed on March 29, 2018, which could materially affect our business, financial condition or future results. The risks described in our Annual Report on Form 10-K filed on March 29, 2018 are not the only risks facing our company. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition or future results.

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

Not required.

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

Not applicable.

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
3.1	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
10.1	Security Agreement dated November 30, 2017 (incorporated by reference to Exhibit 10.65 to our Form 10-K filed on March 29, 2018)
10.2	Secured Promissory Note dated July 6, 2018 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed July 12, 2018)
10.3	Unsecured Promissory Note dated July 24, 2018 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed July 30, 2018)
10.4	Exchange Agreement dated July 25, 2018 (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed on July 30, 2018)
10.5	Unsecured Convertible Exchange Note dated July 25, 2018 (incorporated by reference to Exhibit 10.3 to our Current Report on Form 8-K filed on July 30, 2018)
10.6	Securities Purchase Agreement dated August 1, 2018 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on August 8, 2018)

10.7	Convertible Promissory Note dated August 1, 2018 (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed on August 8, 2018)
10.8	Securities Purchase Agreement dated August 29, 2018 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on September 10, 2018)
10.9	Convertible Promissory Note dated August 29, 2018 (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed on September 10, 2018)

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Exhibit No.	Description
10.10	Securities Purchase Agreement dated September 4, 2018 (incorporated by reference to Exhibit 10.3 to our Current Report on Form 8-K filed on September 10, 2018)
10.11	Convertible Promissory Note dated September 4, 2018 (incorporated by reference to Exhibit 10.4 to our Current Report on Form 8-K filed on September 10, 2018)
10.12	Exchange Agreement dated September 7, 2018 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on September 13, 2018)
10.13	Convertible Promissory Note dated September 7, 2018 (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed on September 13, 2018)
10.14	Non-Convertible Promissory Note dated September 10, 2018 (incorporated by reference to Exhibit 10.3 to our Current Report on Form 8-K filed on September 13, 2018)
10.15	Convertible Promissory Note dated September 14, 2018 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on September 20, 2018)
10.16	Secured Convertible Promissory Note dated October 2, 2018 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on October 9, 2018)
10.17	Securities Purchase Agreement dated October 16, 2018 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on October 23, 2018)
10.18	Convertible Promissory Note dated October 16, 2018 (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed on October 23, 2018)
10.19	Secured Promissory Note dated October 22, 2018 (incorporated by reference to Exhibit 10.3 to our Current Report on Form 8-K filed on October 23, 2018)
10.20	Securities Purchase Agreement dated November 5, 2018 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on November 14, 2018)
10.21	Convertible Promissory Note dated November 5, 2018 (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed on November 14, 2018)
10.22	Investor Notes (Numbered 1 through 8) each dated November 5, 2018 (incorporated by reference to Exhibit 10.3 to our Current Report on Form 8-K filed on November 14, 2018)
31.1*	Chief Executive Officer Certification pursuant to section 302 of the Sarbanes-Oxley Act of 2002
31.2*	Chief Financial Officer Certification pursuant to section 302 of the Sarbanes-Oxley Act of 2002
32.1*	Chief Executive Officer Certification pursuant to section 906 of the Sarbanes-Oxley Act of 2002
32.2*	Chief Financial Officer Certification pursuant to section 906 of the Sarbanes-Oxley Act of 2002
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

* Filed herewith

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ASCENT SOLAR TECHNOLOGIES, INC.
SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized on the 19th day of November, 2018.

ASCENT SOLAR TECHNOLOGIES, INC.

By: /S/ VICTOR LEE
Lee Kong Hian (aka Victor Lee)
President and Chief Executive Officer
(Principal Executive Officer, Principal Financial Officer, Chief Accounting Officer, and Authorized Signatory)