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

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2023

OR

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

For the transition period from ________ to__________

Commission file number: 001-37678

SPI ENERGY CO., LTD.
(Exact Name of Registrant as Specified in Its Charter)

Cayman Islands	**20-4956638**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)
4803 Urbani Ave., Mc Clellan Park, CA	**95652**
(Address of Principal Executive Offices)	(Zip Code)

(408) 919-8000
(Registrant's Telephone Number, Including Area Code)

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

Title of Each Class	**Trading Symbol(s)**	**Name of Each Exchange on Which Registered**
Ordinary Shares, par value $0.0001 per share	SPI	NASDAQ Global Select Market

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

Large Accelerated Filer ☐	Accelerated Filer ☐
Non-Accelerated Filer ☒	Smaller Reporting Company ☒
	Emerging Growth Company ☐

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

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

As of November 20, 2023, 31,603,109 ordinary shares, par value $0.0001 per share, were issued and outstanding.

TABLE OF CONTENTS

PART I

Item 1. Financial Statements

SPI ENERGY CO., LTD.
CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands, except for share and per share data)

	September 30, 2023 (Unaudited)	December 31, 2022
ASSETS		
Current assets:		
Cash and cash equivalents	$ 5,527	$ 3,394
Restricted cash	2,277	6,743
Accounts receivable, net	24,194	21,181
Contract asset	358	1,403
Inventories	34,139	24,427
Project assets held for sale	6,140	10,634
Prepaid expenses and other current assets, net	8,023	6,121
Amount due from related parties	332	332
Current assets of discontinued operations	–	7,721
Total current assets	**80,990**	**81,956**
Intangible assets, net	716	883
Goodwill	625	625
Restricted cash, noncurrent	–	461
Other receivable, noncurrent	208	26
Property and equipment, net	37,634	39,064
Consideration receivable from a related party, noncurrent	12,200	–
Project assets, noncurrent	15,515	14,918
Investment in an affiliate	70,908	69,606
Operating lease right-of-use assets	10,881	10,355
Deferred tax assets, net	515	479
Noncurrent assets of discontinued operations	–	12,722
Total assets	**$ 230,192**	**$ 231,095**
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable	$ 43,842	$ 29,046
Accrued liabilities	14,148	15,154
Amount due to related parties	89	168
Income taxes payable	3,850	3,511
Advance from customers	5,635	7,404
Short-term borrowings and current portion of long-term borrowings	3,441	10,061
Amount due to an affiliate	10,526	10,548
Convertible bonds, current	45,181	42,676
Derivative liability	4,083	3,406
Accrued warranty reserve	557	429
Operating lease liabilities, current	1,124	888
Consideration payable	63,182	61,617
Current liabilities of discontinued operations	–	4,789
Total current liabilities	**195,658**	**189,697**
Long-term borrowings, excluding current portion	6,111	6,450
Deferred tax liabilities, net	2,512	2,673
Operating lease liabilities, non-current	9,908	11,031
Noncurrent Liabilities of discontinued operations	–	3,372
Total liabilities	**214,189**	**213,223**
Equity:		
Ordinary shares, par $0.0001, 500,000,000 shares authorized, 31,603,109 and 30,292,960 shares issued and outstanding as of September 30, 2023, and December 31, 2022, respectively	3	3
Additional paid in capital	733,275	719,697
Accumulated other comprehensive loss	(36,034)	(36,697)
Accumulated deficit	(684,691)	(670,811)
Total equity attributable to the shareholders of SPI Energy Co., Ltd.	12,553	12,192

Noncontrolling interests	3,450	5,680
Total equity	**16,003**	**17,872**
Total liabilities and equity	**$ 230,192**	**$ 231,095**

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

SPI ENERGY CO., LTD.
UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except for share and per share data)

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2023	2022	2023	2022
Net revenues	$ 55,928	$ 42,803	$ 159,762	$ 127,752
Cost of revenue	48,463	45,213	142,675	124,026
Gross profit (loss)	7,465	(2,410)	17,087	3,726
Operating expenses:				
General and administrative	5,787	5,416	16,869	17,706
Sales, marketing and customer service	737	664	1,884	2,400
Impairment charges on long-lived assets	–	1,809	–	1,809
(Reversal) provision for credit losses	(20)	(262)	874	(446)
Total operating expenses	6,504	7,627	19,627	21,469
Operating income (loss)	961	(10,037)	(2,540)	(17,743)
Other (expense) income:				
Interest expense, net	(1,632)	(1,280)	(5,995)	(4,314)
Loss on extinguishment of convertible bonds	(190)	(422)	(190)	(2,634)
Change in fair value of derivative liability	(88)	–	(677)	–
Net foreign exchange gain	1,350	2,603	262	5,927
Employee retention credit (“ERC”) tax refund	–	–	3,313	–
Gain on early termination of leases	1,149	–	1,149	–
Gain on PPP loan forgiveness	–	–	–	4,508
Others	(105)	273	736	1,333
Total other income (expense), net	484	1,174	(1,402)	4,820
Net income (loss) before income taxes	1,445	(8,863)	(3,942)	(12,923)
Income tax expense	(627)	(700)	(1,675)	(1,397)
Net income (loss) from continuing operations	818	(9,563)	(5,617)	(14,320)
Net loss from discontinued operations, net of income taxes	(2,711)	(3,930)	(8,666)	(8,177)
Net loss	$ (1,893)	$ (13,493)	$ (14,283)	$ (22,497)
Net income (loss) from continuing operations	$ 818	$ (9,563)	$ (5,617)	$ (14,320)
Less: Net income attributable to noncontrolling interests from continuing operations	298	303	641	457
Net income (loss) from continuing operations attributable to shareholders of SPI Energy Co., Ltd.	$ 520	$ (9,866)	$ (6,258)	$ (14,777)
Net loss from discontinued operations	$ (2,711)	$ (3,930)	$ (8,666)	$ (8,177)
Less: loss attributable to noncontrolling interests of discontinued operations	(191)	(357)	(1,044)	(357)
Net loss from discontinued operations attributable to shareholders of SPI Energy Co., Ltd.	$ (2,520)	$ (3,573)	$ (7,622)	$ (7,820)
Net loss attributable to shareholders of SPI Energy Co., Ltd.	(2,000)	(13,439)	(13,880)	(22,597)
Net income (loss) from continuing operation per ordinary share – Basic	$ 0.02	$ (0.35)	$ (0.20)	$ (0.54)
Net income (loss) from continuing operation per ordinary share – Diluted	$ 0.02	$ (0.35)	$ (0.20)	$ (0.54)
Net loss from discontinued operation per ordinary share – Basic	$ (0.08)	$ (0.13)	$ (0.25)	$ (0.29)
Net loss from discontinued operation per ordinary share – Diluted	$ (0.08)	$ (0.13)	$ (0.25)	$ (0.29)
Net loss per ordinary share – Basic	$ (0.06)	$ (0.48)	$ (0.45)	$ (0.83)
Net loss per ordinary share – Diluted	$ (0.06)	$ (0.48)	$ (0.45)	$ (0.83)
Weighted average shares outstanding – Basic	30,991,052	28,090,018	30,528,214	27,230,553
Weighted average shares outstanding – Diluted	31,087,302	28,090,018	30,528,214	27,230,553

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

SPI ENERGY CO., LTD.
UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(In thousands)

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2023	2022	2023	2022
Net loss	$ (1,893)	$ (13,493)	$ (14,283)	$ (22,497)
Other comprehensive income (loss):				
Foreign currency translation adjustments	(802)	(2,195)	(324)	(4,557)
Total comprehensive loss	(2,695)	(15,688)	(14,607)	(27,054)
Comprehensive loss attributable to noncontrolling interests	(195)	(77)	(1,390)	(612)
Comprehensive loss attributable to shareholder of SPI Energy Co., Ltd.	$ (2,500)	$ (15,611)	$ (13,217)	$ (26,442)

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

SPI ENERGY CO., LTD.
UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF EQUITY
(In thousands, except for share and per share data)

	Ordinary Shares		Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Equity Attributable to Shareholders of SPI Energy Co., Ltd.	Noncontrolling Interests	Total Equity
	Shares	Amount						
Balances at December 31, 2022	30,292,960	$ 3	$ 719,697	$ (670,811)	$ (36,697)	$ 12,192	$ 5,680	$ 17,872
Net loss	–	–	–	(9,408)	–	(9,408)	(341)	(9,749)
Foreign currency translation adjustments	–	–	–	–	1,289	1,289	(683)	606
Issuance of common stock of Phoenix for standby equity purchase agreement of Phoenix	–	–	–	–	–	–	1,155	1,155
Share-based compensation expense	–	–	617	–	–	617	–	617
Balances at March 31, 2023	30,292,960	$ 3	$ 720,314	$ (680,219)	$ (35,408)	$ 4,690	$ 5,811	$ 10,501
Net loss	–	–	–	(2,472)	–	(2,472)	(169)	(2,641)
Foreign currency translation adjustments	–	–	–	–	(126)	(126)	(2)	(128)
Issuance of common stock of Phoenix for standby equity purchase agreement of Phoenix		–	–	–	–	–	72	72
Share-based compensation expense		–	404	–	–	404	–	404
Balances at June 30, 2023	30,292,960	$ 3	$ 720,718	$ (682,691)	$ (35,534)	$ 2,496	$ 5,712	$ 8,208
Net loss	–	–		(2,000)		(2,000)	107	(1,893)
Foreign currency translation adjustments	–	–		–	(500)	(500)	(302)	(802)

	Shares	Amount	Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Equity Attributable to Shareholders of SPI Energy Co., Ltd.	Noncontrolling Interests	Total Equity
Share-based compensation expense			388	–	–	388	–	388
Deconsolidation of Phoenix (Note 4)	–	–	10,564	–	–	10,564	(2,067)	8,497
Issuance of restricted share units to employees	747,703	–	815	–	–	815	–	815
Settlement of convertible debt with ordinary shares	562,446	–	790	–	–	790	–	790
Balances at September 30, 2023	31,603,109	$ 3	$ 733,275	$ (684,691)	$ (36,034)	$ 12,553	$ 3,450	$ 16,003

	Ordinary Shares		Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Equity Attributable to Shareholders of SPI Energy Co., Ltd.	Noncontrolling Interests	Total Equity
	Shares	Amount						
Balances at December 31, 2021	25,352,060	$ 3	$ 695,073	$ (637,390)	$ (35,257)	$ 22,429	$ 3,521	$ 25,950
Net loss	–	–	–	$ (6,845)	–	$ (6,845)	59	(6,786)
Foreign currency translation adjustments	–	–	–	–	728	728	(663)	65
Issuance of common stock of Phoenix for standby equity purchase agreement of Phoenix	229,888	–	623	–	–	623	–	623
Settlement of convertible debt with ordinary shares	752,393	–	1,750	–	–	1,750	–	1,750
Issuance of ordinary shares for settlement of consideration related to Acquisition of Phoenix	42,442	–	–	–	–	–	–	–
Share-based compensation expense	–	–	595	–	–	595	–	595
Balances at March 31, 2022	26,376,783	$ 3	$ 698,041	$ (644,235)	$ (34,529)	$ 19,280	$ 2,917	$ 22,197
Net loss	–	–	–	$ (2,313)	–	$ (2,313)	95	(2,218)
Foreign currency translation adjustments	–	–	–	–	(2,401)	(2,401)	(26)	(2,427)
Settlement of convertible debt with ordinary shares	1,615,784	–	5,337	–	–	5,337	–	5,337
Issuance of common stock of Phoenix for standby equity purchase agreement of Phoenix	–	–	11,344	–	–	11,344	2,094	13,438
Share-based compensation expense	–	–	340	–	–	340	–	340
Balances at June 30, 2022	27,992,567	$ 3	$ 715,062	$ (646,548)	$ (36,930)	$ 31,587	$ 5,080	$ 36,667
Net loss	–	–	–	(13,439)	–	(13,439)	(54)	(13,493)
Foreign currency translation adjustments	–	–	–	–	(2,172)	(2,172)	(23)	(2,195)
Settlement of convertible debt with ordinary shares	848,669	–	1,572	–	–	1,572	–	1,572
Share-based compensation expense	–	–	707	–	–	707	–	707
Exercise of vested options by employees of Phoenix	–	–	–	–	–	–	138	138
Issuance of ordinary shares of Phoenix in its IPO	–	–	–	–	–	–	793	793
Balances at September 30, 2022	28,841,236	$ 3	$ 717,341	$ (659,987)	$ (39,102)	$ 18,255	$ 5,934	$ 24,189

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

SPI ENERGY CO., LTD.
UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	For the Nine Months Ended September 30,	
	2023	**2022**
Cash flows from operating activities:		
Net cash provided by operating activities of continuing operations	$ 4,831	$ 1,275
Net cash used in operating activities of discontinued operations	(2,542)	(14,243)
Total net cash provided by (used in) operating activities	2,289	(12,968)
Cash flows from investing activities:		
Purchase of property and equipment	(872)	(5,817)
Proceeds from disposal of property and equipment	–	1,651
Loan lent to a related party	–	(1,676)
Proceeds from repayment from a related party	–	1,676
Spin-off off a subsidiary	(396)	–
Net cash used in investing activities of continuing operations	(1,268)	(4,166)

Net cash used in investing activities of discontinued operations	(162)	(449)
Total net cash used in investing activities	(1,430)	(4,615)
Cash flows from financing activities:		
Repayment of borrowings	(148,501)	(114,598)
Proceeds from borrowings	141,715	112,532
Proceeds from issuance of convertible bond, net of original issuance discount	–	2,000
Repayment of convertible bond	(375)	–
Net cash used in financing activities of continuing operations	(7,161)	(66)
Net cash provided by financing activities of discontinued operations	2,751	13,569
Total net cash (used in) provided by financing activities	(4,410)	13,503
Effect of exchange rate changes	368	(968)
Decrease in cash, cash equivalents and restricted cash	(3,183)	(5,048)
Cash, cash equivalents and restricted cash at beginning of period	10,987	17,845
Cash, cash equivalents and restricted cash at end of period	$ 7,804	$ 12,797
Less: cash of discontinued operations at September 30	–	1,567
Cash, cash equivalents and restricted cash at September 30 for continuing operations	$ 7,804	$ 11,230
Reconciliation of cash, cash equivalents, and restricted cash to the consolidated balance sheets		
Cash and cash equivalents	5,527	4,787
Restricted cash	2,277	6,443
Total cash, cash equivalents, and restricted cash	$ 7,804	$ 11,230
Supplemental cash flow information:		
Interest paid	$ 3,192	$ 1,890
Income tax paid	$ 1,524	$ –
Non-cash investing and financing activities:		
Right of use assets obtained in exchange for operating lease obligations	$ 1,942	$ 428
Inventories transferred to PPE	$ 163	$ 690
Settlement of convertible debt with ordinary shares	$ 600	$ 8,659
Derecognition of ROU assets and lease liabilities upon lease termination	$ 610	$ –
Issuance of restricted share units to employees	$ 815	$ –

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

SPI ENERGY CO., LTD.
NOTES TO THE UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Amounts in US$ thousands, except share and per share data)

1. Description of Business and Organization

Description of Business

SPI Energy Co., Ltd. (“SPI Energy” or the “Company”) and its subsidiaries (collectively the “Group”) is engaged in the provision of photovoltaic (“PV”), and roofing and solar energy systems installation solutions for business, residential, government and utility customers and investors. The Group is also starting to assemble solar modules for sale in the United States in 2022.

Organization

The major subsidiaries of the Group as of September 30, 2023, are summarized as below:

Major Subsidiaries	Abbreviation	Location
SolarJuice Co., Ltd	SJ Cayman	Cayman
Solar Juice Pty Ltd.	SJ Australia	Australia
Solarjuice American Inc.	SJ US	United States
Sloar4america Technology Inc. (formerly named Solarjuice Technology Inc.)	SJT	United States
Italsolar S.r.l.	SPI Italy	Italy
SPI Solar Japan G.K.	SPI Japan	Japan
Solar Power Inc UK Service Limited	SPI UK	United Kingdom
SPI Solar Inc.	SPI US	United States
Heliostixio S.A.	Heliostixio	Greece
Heliohrisi S.A.	Heliohrisi	Greece
Thermi Sun S.A.	Thermi Sun	Greece
Knight Holding Corporation	Knight	United States
Edisonfuture Inc.	Edisonfuture	United States

On January 1, 2017, the Group deconsolidated one of the major subsidiaries, Sinsin Renewable Investment Limited (“Sinsin”) due to loss of control and recognized the investment in Sinsin at the carrying amount of $69,606. Both the Group and the former shareholders of Sinsin, Sinsin Europe Solar Asset Limited Partnership and Sinsin Solar Capital Limited Partnership (collectively, the “Sinsin Group”), failed to fulfill the obligation under the share sale and purchase agreement of Sinsin, which led to that both parties filed petitions to each other. The petitions directly affected the Group’s ability to effectively control Sinsin and make any direct management decisions or have any direct impact on Sinsin’s polices, operations or assets without the agreement of Sinsin Group. On October 29, 2020, an arbitration decision was made in Malta that the Group will need to pay the unpaid consideration of EUR 38,054, together with interest at 6% accruing from November 20, 2015 on half of the unpaid consideration and from June 30, 2016 on the remaining half of the unpaid consideration to the date of eventual payment. The Group filed an application for appeals but was turned down by the court of Malta on November 12, 2021. The Group furtherly filed an application of retrial and suspension of the enforcement of the awards but was rejected by the court of Malta on March 30, 2022. On November 2, 2022, Sinsin filed an action to confirm these arbitral awards pursuant to the Convention on the Recognition and Enforcement of Foreign Arbitral Awards of June 10, 1958 ("New York Convention") as implemented by the Federal Arbitration Act ("FAA") before U.S. District Court Eastern District of California. On April 27, 2023, Sinsin filed amended petition to add a request for an award of attorneys' fees incurred in connection with the petition, add detail on the allegedly owed costs and liabilities, and request that the court issue an injunction against asset dissipation pending satisfaction of the requested judgment.

On October 2, 2023, the United States District Court Eastern District of California filed an order dated September 29, 2023 about the action. Pursuant to the order, (i) SPI shall pay Sinsin the amounts no less than $60.4 million, subject to a continuing interest rate of six percent accruing from November 30, 2015 on half of the outstanding balance owed under the parties' Share Sale and Purchase Agreement dated September 6, 2014 ("SPA") (€19million), and accruing from June 20, 2016 on the remaining half of the outstanding amount owed under the SPA (€19million); (ii) Sinsin' request for a worldwide asset freeze to prevent SPI from dissipating its assets was denied by the Court without prejudice to renewal as necessary should SPI fail to comply with the Court's orders; and (iii) Sinsin' motion for an award of attorneys' fees and costs was granted by the Court. On October 2, 2023, the Court entered a judgement in accordance with such order. The Group is currently negotiating with Sinsin on the settlement plan.

As of September 30, 2023, investment in Sinsin was $ 69.6 million. Consideration payable, including accrued interest and litigation fees payable, was $63.2 million as of September 30, 2023.

On September 26, 2023, the Group transferred 56.36% of common stock of one of its subsidiaries, Phoenix Motors Inc. ("Phoenix"), to a related party at a consideration of $12,240 and deconsolidated Phoenix due to loss of control. The Group recognized the remaining investment in Phoenix at the carrying amount of $1,302. The disposal of Phoenix was completed as of September 30, 2023 (See Note 4 Discontinued Operations).

2. Going concern

The Group's condensed consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of the business. The Group had recurring losses from operations. The Group has incurred a net loss of $5,617 from continuing operations during the nine months ended September 30, 2023. As of September 30, 2023, there was net working capital deficit of $114,668 and accumulated deficit of $ 684,691. These factors raise substantial doubt as to the Group's ability to continue as a going concern. The Group intends to continue implementing various measures to boost revenue and control the cost and expenses within an acceptable level and other measures including: 1) negotiate with potential buyers on PV solar projects; 2) negotiate for postponing of convertible bond payments; 3) improve the profitability of the business in US; 4) strictly control and reduce business, marketing and advertising expenses; 5) obtain equity financing from certain subsidiaries' initial public offerings; and 6) seek for certain credit facilities. There is no assurance that the group will be successful in meeting its liquidity and cash flow requirements. The Group's condensed consolidated financial statements do not include any adjustments that may result from the outcome of these uncertainties.

3. Summary of Significant Accounting Policies

(a) Basis of Presentation

The unaudited condensed consolidated financial statements have been prepared in accordance with the rules and regulations of the Securities and Exchange Commission ("SEC") and, therefore, certain information and disclosures normally included in annual financial statements prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") have been omitted.

In the opinion of management, the information reflects all adjustments necessary to make the results of operations for the interim periods a fair statement of such operations. All such adjustments are of a normal recurring nature. Quarterly results are not necessarily indicative of results for the full year. The condensed consolidated balance sheet as of December 31, 2022 has been derived from the audited consolidated financial statements at that date but does not include all information and footnotes required by U.S. GAAP for complete financial statements. These unaudited condensed consolidated financial statements should be read in conjunction with the audited financial statements included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2022.

(b) Use of Estimates

The preparation of the unaudited condensed consolidated financial statements in conformity with U.S. GAAP requires the Group to make estimates and assumptions that affect reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the unaudited condensed consolidated financial statements as well as the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant accounting estimates reflected in the Group's unaudited condensed consolidated financial statements include the allowance for doubtful accounts receivable and other receivable, the impairment of goodwill and long-lived assets, fair value of derivative liability and share based compensation. Changes in facts and circumstances may result in revised estimates. The current economic environment has increased the degree of uncertainty inherent in those estimates and assumptions.

(c) Revenue Recognition

The Group's accounting practices under Accounting Standards Codification ("ASC") No. 606 are as followings:

The Group generates revenue from sales of PV components, sales of self-assembled solar modules, roofing and solar energy systems installation, electricity revenue with Power Purchase Agreements ("PPAs"), sales of PV project assets, and others for the nine months ended September 30, 2023 and 2022.

Sale of PV components

Revenue on sale of PV components includes one performance obligation of delivering the products and the revenue is recognized at a point in time following the transfer of control of such products to the customer, which typically occurs upon shipment or acceptance of the customer depending on the terms of the underlying contracts.

Sales of self-assembled solar modules

Revenue on sale of self-assembled solar modules includes one performance obligation of delivering the products and the revenue is recognized at a point in time following the transfer of control of such products to the customer, which typically occurs upon the delivery to the customer.

Revenue from roofing and solar energy systems installation

Revenue from roofing and solar energy system installation is recognized over time.

For revenue from solar energy system installation, the Group's only performance obligation is to design and install a customized solar energy system, sometimes, reinstall the customer's existing solar energy system. For revenue from roofing the Group's only performance obligation is to design and build roof system per customer specifications.

The Group's roofing projects involve the construction of a specific roof systems in accordance with each customer's selection; the Group's solar energy system installations involve solar modules being retrofitted to existing consumer roofs using rails, then connected to the utility using an inverter system. For both solar energy system installation and roofing, typically jobs are completed within three months, the specific timing depends on the size of the job and the complexity of the job site, and the contract price includes all material and labor needed, and payments are collected based on specific milestones.

The Group provides solar energy systems and roofing installation for various customers, such as homeowners and real estate developers, but the design and installation for each customer differs substantially on the basis of each customer's needs and the type of shingle or roof that is placed with the solar energy system. The asset consequently has no alternative use to the Group because the customer specific design limits the Group's practical ability to readily direct the solar energy system to another customer. As such the Group's performance does not create an asset with an alternative use to the Group. Pursuant to the contract, the customers agree to pay for any costs, expenses and losses incurred by the Group upon termination, and therefore, revenue is recognized over time according to ASC 606-10-25-27(c).

For both solar energy system installation and roofing, all costs to obtain and fulfill contracts associated with system sales and other product sales are expensed to cost of revenue when the corresponding revenue is recognized.

The Group recognizes revenue using a cost-based input method that recognizes revenue and gross profit as work is performed based on the relationship between actual costs incurred compared to the total estimated cost of the contract, to determine the Group's progress towards contract completion and to calculate the corresponding amount of revenue and gross profit to recognize. The total estimated cost of the contract constitutes of material cost and labor cost and are developed based on the size and specific situation of different jobs. Changes in estimates are mainly due to: (i) unforeseen field conditions that impacts the estimated workload, and (ii) change of the unit price of material or labor cost.

If the estimated total costs on any contract are greater than the net contract revenues, the Group recognizes the entire estimated loss in the period the loss becomes known.

Electricity revenue with PPAs

The Group sells energy generated by PV solar power systems under PPAs. For energy sold under PPAs, the Group recognizes revenue each period based on the volume of energy delivered to the customer (i.e., the PPAs off-taker) and the price stated in the PPAs. The Group has determined that none of the PPAs contains a lease since (i) the purchaser does not have the rights to operate the PV solar power systems, (ii) the purchaser does not have the rights to control physical access to the PV solar power systems, and (iii) the price that the purchaser pays is at a fixed price per unit of output.

Sale of PV project asset

The Group's sales arrangements for PV projects do not contain any forms of continuing involvement that may affect the revenue or profit recognition of the transactions, nor any variable considerations for energy performance guarantees, minimum electricity end subscription commitments. The Group therefore determined its single performance obligation to the customer is the sale of a completed solar project. The Group recognizes revenue for sales of solar projects at a point in time after the solar project has been grid connected and the customer obtains control of the solar project.

Other revenue

Other revenue mainly consists of sales of self-assembled solar modules, sales of component and charging stations, sales of forklifts, engineering and maintenance service, shipping and delivery service, sales of pre-development solar projects and others. Other revenues are recognized at a point in time following the transfer of control of such service or products to the customer, which typically occurs upon shipment of product or acceptance of the customer depending on the terms of the underlying contracts.

Disaggregation of revenues from continuing operations

The following table illustrates the disaggregation of revenue by revenue stream and by geographical location for the three and nine months ended September 30, 2023 and 2022:

By revenue stream	**For the nine months ended September 30, 2023 (Unaudited)**

	Sales of PV components	Sales of self-assembled solar modules	Revenue from roofing and solar systems installation	Electricity revenue with PPAs	Sales of pre-development solar projects	Others	Total
Australia	$ 119,062	$ –	$ –	$ –	$ –	$ 870	$ 119,932
United States	–	26,810	2,256	216	6,743	–	36,025
Japan	–	–	–	–	–	67	67
Italy	–	–	–	499	–	–	499
United Kingdom	–	–	–	1,260	–	–	1,260
Greece	–	–	–	1,979	–	–	1,979
Total	$ 119,062	$ 26,810	$ 2,256	$ 3,954	$ 6,743	$ 937	$ 159,762

By revenue stream	For the three months ended September 30, 2023 (Unaudited)						
	Sales of PV components	Sales of self-assembled solar modules	Revenue from roofing and solar systems installation	Electricity revenue with PPAs	Sales of pre-development solar projects	Others	Total
Australia	$ 45,035	$ –	$ –	$ –	$ –	$ 260	$ 45,295
United States	–	8,071	831	69	–	–	8,971
Japan	–	–	–	–	–	25	25
Italy	–	–	–	192	–	–	192
United Kingdom	–	–	–	616	–	–	616
Greece	–	–	–	829	–	–	829
Total	$ 45,035	$ 8,071	$ 831	$ 1,706	$ –	$ 285	$ 55,928

By revenue stream	For the nine months ended September 30, 2022 (Unaudited)						
	Sales of PV components	Revenue from roofing and solar systems installation	Electricity revenue with PPAs	Sales of self-assembled solar modules	Sales of pre-development solar projects	Others	Total
Australia	$ 94,953	$ –	$ –	$ –	$ –	$ 660	$ 95,613
Italy	–	–	776	–	–	–	776
United States	1,608	23,735	–	1,382	637	304	27,666
United Kingdom	–	–	1,561	–	–	–	1,561
Greece	–	–	2,136	–	–	–	2,136
Total	$ 96,561	$ 23,735	$ 4,473	$ 1,382	$ 637	$ 964	$ 127,752

By revenue stream	For the three months ended September 30, 2022 (Unaudited)						
	Sales of PV components	Revenue from roofing and solar systems installation	Electricity revenue with PPAs	Sales of self-assembled solar modules	Sales of pre-development solar projects	Others	Total
Australia	$ 35,399	$ –	$ –	$ –	$ –	$ 218	$ 35,617
Italy	–	–	308	–	–	–	308
United States	305	3,582	–	1,318	–	259	5,464
United Kingdom	–	–	629	–	–	–	629
Greece	–	–	785	–	–	–	785
Total	$ 35,704	$ 3,582	$ 1,722	$ 1,318	$ –	$ 477	$ 42,803

By timing of revenue recognition	For the nine months ended September 30, 2023 (Unaudited)					
	Sales of PV components	Sales of self-assembled solar modules	Revenue from roofing and solar systems installation	Electricity revenue with PPAs	Others	Total
Goods transferred at a point in time	$ 119,062	$ 26,810	$ –	$ 3,954	$ 7,680	$ 157,506
Service transferred over time	–	–	2,256	–	–	2,256
Total	$ 119,062	$ 26,810	$ 2,256	$ 3,954	$ 7,680	$ 159,762

By timing of revenue recognition	For the three months ended September 30, 2023 (Unaudited)					
	Sales of PV components	Sales of self-assembled solar modules	Revenue from roofing and solar systems installation	Electricity revenue with PPAs	Others	Total

Goods transferred at a point in time	$ 45,035	$ 8,071	$ –	$ 1,706	$ 285	$ 55,097
Service transferred over time	–	–	831	–	–	831
Total	$ 45,035	$ 8,071	$ 831	$ 1,706	$ 285	$ 55,928

By timing of revenue recognition	**For the nine months ended September 30, 2022 (Unaudited)**					
	Sales of PV components	**Revenue from roofing and solar systems installation**	**Electricity revenue with PPAs**	**Sales of self-assembled solar modules**	**Others**	**Total**
Goods transferred at a point in time	$ 96,561	$ –	$ 4,473	$ 1,382	$ 1,601	$ 104,017
Service transferred over time	–	23,735	–	–	–	23,735
Total	$ 96,561	$ 23,735	$ 4,473	$ 1,382	$ 1,601	$ 127,752

By timing of revenue recognition	**For the three months ended September 30, 2022 (Unaudited)**					
	Sales of PV components	**Revenue from roofing and solar systems installation**	**Electricity revenue with PPAs**	**Sales of self-assembled solar modules**	**Others**	**Total**
Goods transferred at a point in time	$ 35,704	$ –	$ 1,722	$ 1,318	$ 477	$ 39,221
Service transferred over time	–	3,582	–	–	–	3,582
Total	$ 35,704	$ 3,582	$ 1,722	$ 1,318	$ 477	$ 42,803

Contract balance

The following table provides information about accounts receivable, contract assets and contract liabilities from contracts with customers:

	September 30, 2023 (Unaudited)	**December 31, 2022**
Accounts Receivable	$ 24,194	$ 21,181
Contract assets	358	1,403
Advance from customers	5,635	7,404

The contract assets primarily relate to the Group's rights to consideration for work completed but not billed at the reporting date, primarily for the revenue from roofing and solar energy systems installation in the United States. The contract assets are transferred to receivables when the rights become unconditional after billing is issued.

Advance from customers, which represent a contract liability, represent mostly unrecognized amount received for customers. Advance from customers is recognized as (or when) the Group performs under the contract. During the nine months ended September 30, 2023 and 2022, the Group recognized $7,404 and $4,924 as revenue that was included in the balance of advance from customers at January 1, 2023 and 2022, respectively.

(d) Discontinued operations

A disposal of a component of an entity or a group of components of an entity is required to be reported in discontinued operations if the disposal represents a strategic shift that has (or will have) a major effect on an entity's operations and financial results when any of the following occurs:

(1) the component of an entity or group of components of an entity meets the criteria to be classified as held for sale;
(2) the component of an entity or group of components of an entity is disposed of by sale;
(3) the components of an entity or group of components of an entity is disposed of other than by sale (for example, by abandonment or in a distribution to owners in a spinoff).

For any component classified as held for sale or disposed of by sale or other than by sale that qualify for presentation as a discontinued operation in the period, the Group has reported the assets and labilities of the discontinued operations as current and non-current assets of discontinued operations, and current and non-current liabilities of discontinued operations in the consolidated balance sheets as of December 31, 2022. The results of operations of discontinued operation for the nine and three months ended September 30, 2023 and 2022 have been reflected separately in the consolidated statements of operations as a single line item for all periods presented in accordance with U.S.GAAP. Cash flows from discontinued operations of the three categories for the nine months ended September 30, 2023 and 2022 were separately presented in the consolidated statements of cash flows for all periods presented in accordance with U.S. GAAP.

For the disposal under common control, the Group records the impacts on deconsolidation in additional paid in capital based on the difference on the deconsolidation date between (i) the aggregate of (a) the consideration received, (b) the carrying amount of non-controlling interest in the deconsolidated subsidiaries, and (c) the carrying amount of the remaining interests in the deconsolidated subsidiaries less (ii) the carrying amount of the deconsolidated subsidiaries' assets and liabilities.

(e) Recent Accounting Pronouncements

Recently adopted accounting pronouncements

In October 2021, the FASB issued ASU 2021-08, Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers ("ASU 2021-08"), which requires entities to recognize and measure contract assets and contract liabilities acquired in a business combination in accordance with Topic 606, Revenue from Contracts with Customers ("ASC 606"). The update will generally result in an entity recognizing contract assets and contract liabilities at amounts consistent with those recorded by the acquiree immediately before the acquisition date rather than at fair value. ASU 2021-08 is effective on a prospective basis for fiscal years beginning after December 15, 2022, with early adoption permitted. The Group adopted ASU 2021-08 effective January 1, 2023 and apply the guidance to subsequent acquisitions. The adoption of ASU 2021-08 will only impact the accounting for the Group's future acquisitions.

Accounting Pronouncements Issued But Not Yet Adopted

In March 2020, the FASB issued ASU 2020-04, Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting ("ASU 2020-04"), which provides elective amendments for entities that have contracts, hedging relationships and other transactions that reference LIBOR or another reference rate expected to be discontinued because of reference rate reform. These amendments were effective immediately and may be applied prospectively to contract modifications made and hedging relationships entered into or evaluated on or before December 31, 2022. In January 2021, the FASB issued ASU 2021-01, Reference Rate Reform (Topic 848), to expand and clarify the scope of Topic 848 to include derivative instruments on discounting transactions. The amendments in this ASU are effective in the same timeframe as ASU 2020-04. In December 2022, the FASB issued ASU 2022-06, Reference Rate reform (Topic 848): Deferral of the Sunset Date of Topic 848, which deferred the sunset date of Topic 848, Reference Rate Reform to December 31, 2024. The Group is currently evaluating the impact this guidance will have on its consolidated financial statements.

The Group does not believe other recently issued but not yet effective accounting standards, if currently adopted, would have a material effect on the unaudited condensed consolidated balance sheets, statements of operations and cash flows.

4. Discontinued Operations

On September 26, 2023, the Group's subsidiary, Edison Future, sold 56.36% of its common stock of Phoenix Motor Inc. ("Phoenix") to Palo Alto Clean Tech Holding Limited ("Palo Alto", the Buyer), an entity controlled by Xiaofeng Peng, the Group's Chairman of the Board of Directors and Chief Executive Officer.

The consideration of $12,240 was paid $40 in cash on September 26, 2023 and the balance of $ 12,200 was paid by delivery of a secured promissory note dated September 26, 2023, bearing interest at 3% per annum, with the full principal amount of $ 12,200 due at maturity in 3 years, or September 26, 2026. The common stock of Phoenix sold in this transaction were also pledged as collateral for the seller Edison Future's benefit under a Stock Pledge Agreement dated September 26, 2023.

As Phoenix used to be a reportable segment of the Group and the disposal of Phoenix is considered as a strategic shift, the Group disclosed the results of the business of Phoenix as discontinued operations. As the disposal of Phoenix is considered as a spin-off, there is no gain or loss recognized because of the disposal and the difference between consideration received, the carrying amount of the remaining interests, the carrying amount of the non-controlling interest derecognized, over the carrying amount of the net asset of Phoenix disposed were recorded in APIC.

The assets and liabilities of Phoenix are included in the captions "Current assets of discontinued operations", "Non-current assets of discontinued operations", "Current liabilities of discontinued operations" and "Non-current liabilities of discontinued operations", in the accompanying balance sheets at December 31, 2022 and consist of the following:

	December 31, 2022
Assets	
Current assets	
Cash and cash equivalents	$ 139
Accounts receivable, net	1,510
Inventories	4,560
Prepaid expenses and other current assets	1,344
Amount due from related party	168
Total current assets of discontinued operations	7,721
Restricted cash, non current	250
Property and equipment, net	2,492
Security deposits	208
Right-of-use assets	3,797
Intangible assets, net	1,704
Goodwill	4,271
Total non-current assets of discontinued operations	**12,722**
Total assets of discontinued operations	**$ 20,443**
Liabilities	
Current liabilities	
Accounts payable	$ 1,359
Accrued liabilities	650
Advance from customers	1,230
Deferred revenue	503
Warranty reserve	325
Lease liabilities - Current portion	719
Long-term borrowing, current portion	3
Total current liabilities of discontinued operations	4,789
Lease liabilities - Non-current portion	3,225
Long-term borrowings	147
Total non-current liabilities of discontinued operations	**3,372**
Total liabilities of discontinued operations	**$ 8,161**

The comparative condensed consolidated statements of operations have been represented to show the discontinued operations separately from continuing operations. Details of the results from discontinued operations, net of tax are set out below:

	For the three months ended September 30,		For the nine months ended September 30,	
	2023*	2022	2023*	2022
	USD'000	USD'000	USD'000	USD'000
Net sales	$ 288	$ 409	$ 3,227	$ 2,579
Cost of goods sold	293	288	3,120	2,013
Gross (loss) profit	(5)	121	107	566
Selling, general and administrative	2,531	3,847	9,477	9,160
Total operating expense	2,531	3,847	9,477	9,160
Total other income (expense), net	(175)	(204)	726	431
Loss from discontinued operations	(2,711)	(3,930)	(8,644)	(8,163)
Income tax expense	–	–	(22)	(14)
Loss from discontinued operations, net of income tax	$ (2,711)	$ (3,930)	$ (8,666)	$ (8,177)

* The result of discontinued operations included those of discontinued operations from January 1, 2023 to September 26, 2023.

5. Accounts Receivable, Net

The accounts receivable, net as of September 30, 2023 and December 31, 2022 consisted of the following:

	September 30, 2023 (Unaudited)	December 31, 2022
Accounts receivable	$ 26,760	$ 22,896
Less: Allowance for credit losses	(2,566)	(1,715)
Accounts receivable, net	$ 24,194	$ 21,181

For the nine months ended September 30, 2023, the Group recorded credit losses with amount of $ 874. For the nine months ended September 30, 2022, the Group reversed bad debt provision of $446.

6. Inventories

Inventories as of September 30, 2023 and December 31, 2022 consisted of the following:

	September 30, 2023 (Unaudited)	December 31, 2022
Finished goods	$ 28,422	$ 20,744
Goods in transit	699	737
Work in process	239	550
Raw materials	4,779	2,396
Total inventories	$ 34,139	$ 24,427

For the nine months ended September 30, 2023 and 2022, the Group recorded $ 1,075 and nil write-downs for inventories, respectively, to reflect the lower of cost or net realizable value.

7. Share-based Compensation

The following table summarizes the consolidated share-based compensation expense, by type of awards:

	For the three months Ended		For the nine months Ended	
	September 30, 2023	September 30, 2022	September 30, 2023	September 30, 2022
Employee stock options	$ 186	$ 707	$ 1,207	$ 1,642
Restricted share units grants (See Note 8)	815	–	815	623
Total share-based compensation expense	$ 1,001	$ 707	$ 2,022	$ 2,265

The following table summarizes the consolidated share-based compensation by line items:

	For the three months Ended		For the nine months Ended	
	September 30, 2023	September 30, 2022	September 30, 2023	September 30, 2022
General and administrative	$ 995	$ 698	$ 2,005	$ 2,252

Sales, marketing and customer service	6	9	17	13
Total share-based compensation expense, net of nil income taxes	$ 1,001	$ 707	$ 2,022	$ 2,265

8. Equity

During the three months ended September 30, 2023, the Board of Directors approved the grants of restricted share units to core management members and other management, pursuant to the terms of the 2015 Plan. The total number of restricted stock units granted was 747,703 units. The vesting schedules are 100% vested at the grant date for all the grants subject to 180 days lock-up period. All these restricted stock units were issued to the management on August 30, 2023. The Group used the market price of its shares at the grant date as the fair value of the stock units in calculating the share-based compensation expense.

During the nine months ended September 30, 2023 and 2022, the Group issued 562,446 and 3,216,846 ordinary shares of the Company to settle partial principal and accrued interests of certain convertible bonds, resulting in loss on extinguishment of convertible bonds of $190 and $2,634 during the nine months ended September 31, 2023, and 2022, respectively.

9. Net Income (Loss) Per Share

	For the three months Ended (Unaudited)		For the nine months Ended (Unaudited)	
	September 30, 2023	**September 30, 2022**	**September 30, 2023**	**September 30, 2022**
Numerator:				
Net income (loss) from continuing operations attributable to SPI's ordinary shareholders	$ 520	$ (9,866)	$ (6,258)	$ (14,777)
Net loss from discontinued operations attributable to SPI's ordinary shareholders	(2,520)	(3,573)	(7,622)	(7,820)
Net loss attributable to SPI's ordinary shareholders	$ (2,000)	$ (13,439)	$ (13,880)	$ (22,597)
Denominator:				
Weighted average number of ordinary shares – Basic	30,991,052	28,090,018	30,528,214	27,230,553
Weighted average number of ordinary shares – Diluted	31,087,302	28,090,018	30,528,214	27,230,553
Net income (loss) from continuing operation attributable to SPI's ordinary shareholders per ordinary share – Basic	$ 0.02	$ (0.35)	$ (0.20)	$ (0.54)
Net income (loss) from continuing operation attributable to SPI's ordinary shareholders per ordinary share – Diluted	$ 0.02	$ (0.35)	$ (0.20)	$ (0.54)
Net loss from discontinued operation attributable to SPI's ordinary shareholders per ordinary share				
– Basic	$ (0.08)	$ (0.13)	$ (0.25)	$ (0.29)
– Diluted	$ (0.08)	$ (0.13)	$ (0.25)	$ (0.29)
Net loss attributable to SPI's ordinary shareholders per ordinary share – Basic	$ (0.06)	$ (0.48)	$ (0.45)	$ (0.83)
Net loss attributable to SPI's ordinary shareholders per ordinary share – Diluted	$ (0.06)	$ (0.48)	$ (0.45)	4 (0.83)

For the nine months ended September 30, 2023 and 2022 and the three months ended September 30, 2022, certain outstanding options and nonvested shares were excluded from the computation of diluted net income per share as their inclusion would have been anti-dilutive.

	For the three months Ended (Unaudited)		For the nine months Ended (Unaudited)	
	September 30, 2023	**September 30, 2022**	**September 30, 2023**	**September 30, 2022**
Share options and non-vested restricted stock	N/A	10,000	5,000	10,000
Convertible bonds	N/A	524,500	912,500	524,500
Total	N/A	534,500	917,500	534,500

10. Contingencies

On January 26, 2018, Sinsin Group filed a complaint against the Group requesting the payment of outstanding purchase price and related interest of $43,595 (EUR 38,054). On June 25, 2018, an interim measures judgment was made which appointed an interim management of Sinsin, consisting of two members elected by Sinsin Group and one member elected by the Group. The interim management would manage the bank accounts of Sinsin and collect the proceeds of electric energy revenue. On October 29, 2020, an arbitration decision was made that the Group will need to pay the outstanding purchase price of $43,595 (EUR 38,054), together with interest at 6% accruing from November 20, 2015 on half of the outstanding purchase and from September 30, 2016 on the remaining half of the outstanding purchase price to the date of eventual payment. The Group filed an application for appeals in the court of Malta but was turned down by the court in November 2021. The Group furtherly filed an application of retrial and suspension of the enforcement of the awards. The application of retrial was rejected by the court on March 30, 2022. On November 2, 2022, Sinsin filed an action to confirm these arbitral awards pursuant to the Convention on the Recognition and Enforcement of Foreign Arbitral Awards of June 10, 1958 ("New York Convention") as implemented by the Federal Arbitration Act ("FAA") before U.S. District Court Eastern District of California.

On April 27, 2023, Sinsin filed amended petition to add a request for an award of attorneys' fees incurred in connection with the petition, add detail on the allegedly owed costs and liabilities, and request that the court issue an injunction against asset dissipation pending satisfaction of the requested judgment.

On October 2, 2023, the United States District Court Eastern District of California (the "Court") filed an order dated September 29, 2023 about the action. Pursuant to the order, (i) SPI shall pay Sinsin the amounts no less than $60,400, subject to a continuing interest rate of six percent accruing from November 30, 2015 on half of the outstanding balance owed under the parties' Share Sale and Purchase Agreement dated September 6, 2014 ("SPA") (EUR19,000), and accruing from June 20, 2016 on the remaining half of the outstanding amount owed under the SPA ((EUR19,000); (ii) Sinsin' request for a worldwide asset freeze to prevent SPI from dissipating its assets was denied by the Court without prejudice to renewal as necessary should SPI fail to comply with the Court's orders; and (iii) Sinsin' motion for an award of attorneys' fees and costs was granted by the Court. On October 2, 2023, the Court entered a judgement in accordance with such order. And the relative interest and Sinsin's attorneys' fees and costs were recorded by the Group as of September 30, 2023.

On February 16, 2023, Streeterville delivered a Redemption Notice to the Group to redeem $350 of the 2022 Note with a deadline to pay the Redemption Amount by February 22, 2023. The Group failed to pay the Redemption Amount on time and such failure to pay is an Event of Default under the 2022 Note. Due to this Event of Default, (i) the base interest of the 2022 Note was increased to 15% per annum; (ii) the outstanding balance of the 2022 Note was increased by 15%; and (iii) the entire outstanding balance of the 2022 Note was accelerated and due on March 3, 2023. The Group failed to pay the outstanding balance of the 2022 Note by March 3, 2023 and as a result, Streeterville filed a complaint in the third judicial district court of Salt Lake County, requesting for actual damages in an amount not less than $2,676, plus applicable interest, damages, charges, fees, attorney fees, and collection costs. On March 31, 2023, a hearing was held and the temporary restraining order requiring the Group to pay the 2022 Note in full from the proceeds of the IPO of its subsidiary, SolarJuice Co., Ltd. On June 26, 2023, Streeterville and the Group entered into a term sheet to mediate the dispute. The Group agreed to pay Streeterville $375 in cash and $400 in stock by July 5, 2023. After that, the Group agreed to pay Streeterville $425 each month starting from July 31, 2023. Among the monthly installment payments, at least $225 shall be paid in cash.

On July 5, 2023, SPI paid $375 in cash and $600 was settled in stock but failed to make Settlement Payments due on July 31, 2023 and August 31, 2023. Five days have passed since the Default Notice. And SPI has not cured its default. Accordingly, Streeterville is entitled to judgment against SPI in the amount of $1,825 ($2,800 less SPI's Settlement Payments of $975), together with an order extending the Injunction (On June 10, 2023, this Tribunal issued a Ruling and Order that, among other things, enjoined SPI "from issuing, selling, encumbering, or otherwise disposing of any of its shares or equity (the "Injunction") during the pendency of the arbitration unless the Note is paid simultaneously with such issuance.) until the judgment amount, including interest at 15% per annum accruing from July 31, 2023, is paid in full.

On October 6, 2023, the Tribunal enters a final arbitration award that awards Streeterville $ 1,825 (the "Award Amount" and the calculation mentioned above); interest on the balance of the Award Amount at the rate of 15% per annum, accruing from July 31, 2023 until the Award Amount and all accrued interest is paid in full. And the Tribunal enjoins SPI from issuing, selling, encumbering, or otherwise disposing of any of its shares or equity in itself unless the Award Amount and all accrued interest is paid simultaneously therewith.

From time to time, the Group is involved in various other legal and regulatory proceedings arising in the normal course of business. While the Group cannot predict the occurrence or outcome of these proceedings with certainty, it does not believe that an adverse result in any pending legal or regulatory proceeding, individually or in the aggregate, would be material to the Group's consolidated financial condition or cash flows; however, an unfavorable outcome could have a material adverse effect on the Group's results of operations.

11. Concentration Risk

(a) Customers

A substantial percentage of the Group's net revenue comes from sales made to a large number of customers at a small transaction amount, to whom sales are typically made on an open account basis.

There was no customer of which the revenue accounted for 10% or more of total net revenue for the three months and nine months ended September 30, 2023, and 2022.

As of September 30, 2023, there was one customer of which the accounts receivable accounted for 13% of total accounts receivable. As of December 31, 2022, there was one customer of which the accounts receivable accounted for 21% of total accounts receivable.

(b) Suppliers

As of September 30, 2023, there were two suppliers of which the accounts payable accounted for 30% and 13% of total accounts payable, respectively. As of December 31, 2022, there were two suppliers of which the accounts payable accounted for 14% and 11% of total accounts payable, respectively.

12. Related Party Transactions

The amount due from related parties were $332 and $332 as of September 30, 2023, and December 31, 2022, respectively, representing expenses paid by the Group on behalf of a related entity for business operations. The consideration receivable from a related party, noncurrent was $12,200 and nil as of September 30, 2023 and December 31, 2022, respectively, representing the due from a related party for the long term consideration receivable for the transfer of the common stock in Phoenix (Note 4).

13. Segment information

For the three months and nine months ended September 30, 2023, and 2022, there are two operating segments from continuing operations: (1) renewable energy solutions business and (2) solar projects development business. The Group's CODM assess the performance of each segment based on revenue, cost of revenue and total assets. Other than the information provided below, the CODM does not use any other measures by segments.

Summarized information by segments for the three months and nine months ended September 30, 2023, and 2022 is as follows:

	For the three months ended September 30, 2023 (Unaudited)			
	Renewable energy solutions	PV stations constructions and operations	Others	Total
	USD	USD	USD	USD
Revenues from external customers	53,937	1,706	285	55,928
Cost of revenue	47,164	726	573	48,463
Gross profit (loss)	6,773	980	(288)	7,465

	For the three months ended September 30, 2022 (Unaudited0			
	Renewable energy solutions	PV stations constructions and operations	Others	Total
	USD	USD	USD	USD
Revenues from external customers	40,604	1,722	477	42,803
Cost of revenue	43,828	646	739	45,213
Gross profit (loss)	(3,224)	1,076	(262)	(2,410)

	For the nine months ended September 30, 2023 (Unaudited)			
	Renewable energy solutions	PV stations constructions and operations	Others	Total
	USD	USD	USD	USD
Revenues from external customers	148,128	10,697	937	159,762
Cost of revenue	133,154	7,496	2,025	142,675
Gross profit (loss)	14,974	3,201	(1,088)	17,087

	For the nine months ended September 30, 2022 (Unaudited)			
	Renewable energy solutions	PV stations constructions and operations	Others	Total
	USD	USD	USD	USD
Revenues from external customers	121,678	5,110	964	127,752
Cost of revenue	120,452	1,646	1,928	124,026
Gross profit (loss)	1,226	3,464	(964)	3,726

Summarized information by segments as of September 30, 2023, and December 31, 2022 is as follows:

	As of September 30, 2023 (Unaudited)	As of December 31, 2022
	USD	USD
Segment assets		
Renewable energy solutions	85,192	71,260
Solar projects development	122,553	133,495
Others	22,447	5,897
Total segment assets	230,192	210,652

Total long-lived assets excluding financial instruments, intangible assets, long-term investment and goodwill by country were as follows:

	As of September 30, 2023 Unaudited	As of December 31, 2022
	USD	USD
Australia	905	398
United States	40,145	40,018
Japan	512	586
Italy	1,386	1,508
United Kingdom	7,815	7,945
Greece	13,267	13,882
Total long-lived assets	64,030	64,337

14. Subsequent Events

The Group has evaluated subsequent events through the date of issuance of the unaudited condensed consolidated financial statements, other than disclosure in Note 10(b), there were no other subsequent events occurred that would require recognition or disclosure in the consolidated financial statements.

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

Forward-Looking Statements

You should read the following discussion and analysis of our financial condition and results of operations in conjunction with our unaudited condensed consolidated financial statements and the related notes included elsewhere in this quarterly report. Our unaudited condensed consolidated financial statements have been prepared in accordance with U.S. GAAP. The following discussion and analysis contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, including, without limitation, statements regarding our expectations, beliefs, intentions or future strategies that are signified by the words "expect," "anticipate," "intend," "believe," or similar language. All forward-looking statements included in this document are based on information available to us on the date hereof, and we assume no obligation to update any such forward-looking statements. Our business and financial performance are subject to substantial risks and uncertainties. Actual results could differ materially from those projected in the forward-looking statements. In evaluating our business, you should carefully consider the information set forth under the heading "Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2022. Readers are cautioned not to place undue reliance on these forward-looking statements.

Overview

We are a global provider of photovoltaic (PV) solutions for business, residential, government and utility customers and investors. We develop solar PV projects which are either sold to third party operators or owned and operated by us for selling of electricity to the grid in multiple countries in Asia, North America and Europe. In Australia, we primarily sell solar PV components to retail customers and solar project developers. We started to engage in roofing and solar energy systems installation in U.S. from 2021 and commenced pilot production of "Made-in-America" solar modules in US in the second quarter of 2022. We also engaged in sales and leasing of new zero-emission EVs in U.S. from 2020 till September 2023.

Our liquidity position has deteriorated since 2015. We suffered a net loss of $5.6 million during the nine months ended September 30, 2023 from continuing operations, and the accumulated deficit as of September 30, 2023 was $684.7 million. For a detailed discussion, please see "Item 2 - Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources".

On June 10, 2022, our previously owned subsidiary, Phoenix Motor Inc., ("Phoenix") a Delaware corporation, closed its initial public offering of 2,100,000 shares of common stock at a public offering price of $7.50 per share, for aggregate gross proceeds of $15.75 million before deducting underwriting discounts and commissions and offering expenses. The offering closed on June 10, 2022 and the common stock of Phoenix Motor Inc. began trading on June 8, 2022 on The Nasdaq Capital Market under the ticker symbol "PEV." On September 26, 2023, we sold 56.36% of common stock of Phoenix and deconsolidated Phoenix due to loss of control. We recognized the investment in Phoenix at the carrying amount of $1,302. (See *Discontinued operations and net loss from discontinued operations* below).

Basis of presentation, management estimates and critical accounting policies

Our unaudited condensed consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States of America ("U.S. GAAP") and include the accounts of our company, and all of our subsidiaries. We prepare financial statements in conformity with U.S. GAAP, which requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities on the date of the financial statements and the reported amounts of revenues and expenses during the financial reporting period. We continually evaluate these estimates and assumptions based on the most recently available information, our own historical experience and various other assumptions that we believe to be reasonable under the circumstances. Since the use of estimates is an integral component of the financial reporting process, actual results could differ from those estimates. Some of our accounting policies require higher degrees of judgment than others in their application. In order to understand the significant accounting policies that we adopted for the preparation of our unaudited condensed consolidated financial statements, readers should refer to the information set forth in Note 3 "Summary of significant accounting policies" to our audited financial statements in our 2022 Form 10-K.

Principal Factors Affecting Our Results of Operations

We believe that the following factors have had, and we expect that they will continue to have, a significant effect on the development of our business, financial condition, and results of operations.

Market Demand

Our revenue and profitability depend substantially on the demand for our PV solutions, which is driven by the economics of PV systems, including the availability and size of government subsidies and other incentives, government support, cost improvements in solar power, as well as environmental concerns and energy demand. The world PV market in terms of new annual installations is expected to grow significantly in the next five years, providing engineering procurement construction ("EPC") service providers and solar project developers like us with significant opportunities to grow our business.

In the long term, as PV technology advances and the average system costs of solar projects decrease, we expect the market for electricity in a growing number of countries to achieve grid parity. As the PV industry becomes more competitive against other energy industries and widespread grid parity strengthens demand for solar projects, we expect our costs of sales to decrease and our revenue and profitability to increase.

As PV and energy storage technology advances and the average system costs decrease, in many cases the residential or small business owners of solar systems have effectively achieved grid parity for their systems. Aided by smart meter and virtual power plant technologies such systems can be an attractive alternative to electricity grid in many localities. We expect traditionally strong residential solar markets such as California and Australia to continue to grow. We anticipate capturing scale economies as the overall solar power market grows and expect our costs of sales to decrease and our revenue and profitability to increase.

Government Subsidies and Incentive Policies

We believe that the growth of the solar power industry in the short term will continue to depend largely on the availability and effectiveness of government incentives for solar power products and the competitiveness of solar power in relation to conventional and other renewable energy resources in terms of cost. Countries in Europe, notably Italy, Germany, France, Belgium and Spain, certain countries in Asia, including Japan, India and South Korea, as well as Australia and the United States have adopted favorable renewable energy policies. Examples of government sponsored financial incentives to promote solar power include capital cost rebates, tax credits, net metering and other incentives to end users, distributors, project developers, system integrators and manufacturers of solar power products.

Governments may reduce or eliminate existing incentive programs for political, financial or other reasons, which will be difficult for us to predict. Electric utility companies or generators of electricity from fossil fuels or other renewable energy sources could also lobby for a change in the relevant legislation in their markets to protect their revenue streams. Government economic incentives could be reduced or eliminated altogether.

Our Solar Power Generation and Operations Capabilities

Our financial condition and results of operations depend on our ability to successfully continue to develop new solar projects and operate our existing solar projects. We expect to build and manage a greater number of solar projects, which we expect to present additional challenges to our internal processes, external construction management, working capital management and financing capabilities. Our financial condition, results of operations and future success depend, to a significant extent, on our ability to continue to identify suitable sites, expand our pipeline of projects with attractive returns, obtain required regulatory approvals, arrange necessary financing, manage the construction of our solar projects on time and within budget, and successfully operate solar projects.

Results of Operations for the Three Months Ended September 30, 2023 and 2022

The following table sets forth a summary, for the periods indicated, of our consolidated results of operations (in thousands) and each item expressed as a percentage of our total net sales. Our historical results presented below are not necessarily indicative of the results that may be expected for any future period.

	For the Three Months Ended September 30,			
In thousand US$	**2023 (Unaudited)**		**2022 (Unaudited)**	
Net revenues	$ 55,928	100.0%	$ 42,803	100.0%
Cost of revenues	48,463	86.7%	45,213	105.6%
Gross profit (loss)	7,465	13.3%	(2,410)	-5.6%
Operating expenses:				
General and administrative	5,787	10.3%	5,416	12.7%
Sales, marketing and customer service	737	1.3%	664	1.6%
Impairment charges on long-lived assets	–	–	1,809	4.2%
Reversal of credit losses	(20)	-0.04%	(262)	-0.6%
Total operating expenses	6,504	11.6%	7,627	17.8%
Operating income (loss)	961	1.7%	(10,037)	-23.4%
Other (expense) income:				
Interest expenses, net	(1,632)	-2.9%	(1,280)	-3.0%
Loss on extinguishment of convertible bonds	(190)	-0.3%	(422)	-1.0%
Change in fair value of derivative liability	(88)	-0.2%	–	–
Net foreign exchange gain	1,350	2.4%	2,603	6.1%
Gain on early termination of leases	1,149	2.1%	–	–
Others	(105)	-0.2%	273	0.6%
Total other income, net	484	0.9%	1,174	2.7%
Net income (loss) before income taxes	1,445	2.6%	(8,863)	-20.7%
Income taxes expense	(627)	-1.1%	(700)	-1.6%
Net income (loss) from continuing operations	818	1.5%	(9,563)	-22.3%
Net Loss from discontinued operations, net of taxes	(2,711)	-4.8%	(3,930)	-9.2%
Net loss	$ (1,893)	-3.3%	$ (13,493)	-31.5%

Net revenues — Net revenues were $55.9 million and $42.8 million for the three months ended September 30, 2023 and 2022, respectively, representing an increase of $13.1 million or 30.7%. The increase in net sales for the three months ended September 30, 2023 over the comparative period was primarily due to the increase of revenue from sales of PV components of $9.3 million mainly due to strategic cooperation with a prominent supplier with lower purchase cost of PV components, enabling sales at more competitive prices. The increase was also due to $6.7 million from sales of solar modules as we started sales of self-assembled solar modules business in the second half of year 2022. The increase was partially net off by the decrease of revenue from roofing and solar energy systems installation of $2.8 million due to our downsizing strategy, implemented in response to low profitability resulting from lower-than-expected project management efficiency and escalating operational costs. We currently still intend to continue this business and we will continually assess the market demand, the scale and geographic scope of the roofing and solar energy system installation business. Our primary focus is on ensuring profitability, and we intend to persist in this approach moving forward.

Cost of revenues — Cost of revenues was $48.5 million (86.7% of net revenue) and $45.2 million (105.6% of net revenue) for the three months ended September 30, 2023 and 2022, respectively, representing an increase of $3.3 million or 7.2%. The increase in cost of goods sold was consistent with the increase of net revenues.

Gross profit — Our gross profit increased to $7.5 million in the three months ended September 30, 2023 from negative $2.4 million in the three months ended September 30, 2022. Gross margins were 13.3% and -5.6% for the three months ended September 30, 2023 and 2022, respectively. The increase in gross margin was primarily due to the increase in gross margin of sales of solar modules and the decrease of total revenue from the low gross margin roofing and solar energy system installation and its percentage in the total revenue.

General and administrative expenses — General and administrative expenses were $5.8 million (10.3% of net revenue) and $5.4 million (12.7% of net revenue) for the three months ended September 30, 2023 and 2022, respectively, representing an increase of $0.4 million, or 6.9%. The increase of general and administrative expenses was mainly due to the increase in stock-based compensation expenses for restricted stock units granted to our management for bonuses.

Sales, marketing and customer service expenses — Sales, marketing and customer service expenses were $0.7 million (1.3% of net revenue) and $0.7 million (1.6% of net revenue) for the three months ended September 30, 2023 and 2022, respectively. The sales, marketing and customer service expenses kept relatively stable in the two periods.

Reversal of credit losses — In the three months ended September 30, 2023 and 2022, we reversed previously recorded credit losses of $20 thousand and $0.3 million, respectively.

Interest expense, net — Interest expense, net was $1.6 million (2.9% of net sales) and $1.3 million (3.0% of net sales) for the three months ended September 30, 2023, and 2022, respectively. The increase in interest expense was primarily due to interest expense accrued from convertible bonds issued in April 2022 as well as debt discount amortization.

Net foreign exchange gain — We had a net foreign exchange gain of $1.4 million (2.4% of net revenue) and $2.6 million (6.1% of net revenue) for the three months ended September 30, 2023, and 2022, respectively. The variance is mainly due the fluctuation of exchange rate for EUR/USD and AUD/USD.

Income tax expense — We had a provision for expense taxes of $0.6 million (1.1% of net revenue) and $0.7 million (1.6% of net revenue) for the three months ended September 30, 2023, and 2022, respectively. The income tax expense kept stable as there was no significant change in profit before tax of our subsidiary in Australia.

Gain on early termination of lease - We accrued $1.1 million impairment charges of our right-of-use assets in our roofing and solar energy systems installation business during the year ended December 31, 2022. During the three months ended September 30, 2023, the leases related to the previously impaired right-of-use assets were early terminated, resulting in a gain on early termination of leases, whose right-of-use assets were previously fully impaired.

Net loss from continuing operation — For the foregoing reasons, we incurred a net income of $0.8 million (1.5% of net revenue) from continuing operations, for the three months ended September 30, 2023, representing an increase of $10.4 million compared to a net loss of $9.6 million (22.3% of net revenue) for the three months ended September 30, 2022.

Results of Operations for the Nine Months Ended September 30, 2023, and 2022

The following table sets forth a summary, for the periods indicated, of our consolidated results of operations (in thousands) and each item expressed as a percentage of our total net sales. Our historical results presented below are not necessarily indicative of the results that may be expected for any future period.

	For the Nine Months Ended September 30,			
In thousand US$	**2023 (Unaudited)**		**2022 (Unaudited)**	
Net revenues	$ 159,762	100.0%	$ 127,752	100.0%
Cost of revenues	142,675	89.3%	124,026	97.1%
Gross profit	17,087	10.7%	3,726	2.9%
Operating expenses:				
General and administrative	16,869	10.6%	17,706	13.9%
Sales, marketing and customer service	1,884	1.2%	2,400	1.9%
Impairment charges on long-lived assets	–	–	1,809	1.4%
Provision (reversal) for credit losses	874	0.5%	(446)	-0.3%
Total operating expenses	19,627	12.3%	21,469	16.8%
Operating loss	(2,540)	-1.6%	(17,743)	-13.9%
Other (expense) income:				
Interest expenses, net	(5,995)	-3.8%	(4,314)	-3.4%
Loss on extinguishment of convertible bonds	(190)	-0.1%	(2,634)	-2.1%
Change in fair value of derivative liability	(677)	-0.4%	–	–
Net foreign exchange gain	262	0.2%	5,927	4.6%
Employee retention credit (“ERC”) tax refund	3,313	2.1%	–	–
Gain on early termination of leases	1,149	0.7%	–	–
PPP loan forgiveness	–	–	4,508	3.5%
Others	736	0.5%	1,333	1.0%
Total other (expenses) income, net	(1,402)	-0.9%	4,820	3.8%
Net loss before income taxes	(3,942)	-2.5%	(12,923)	-10.1%
Income taxes expense	(1,675)	-1.0%	(1,397)	-1.1%
Net loss from continuing operations	(5,617)	-3.5%	(14,320)	-11.2%
Net Loss from discontinued operations	(8,666)	-5.4%	(8,177)	-6.4%
Net loss	$ (14,283)	-8.9%	$ (22,497)	-17.6%

Net revenues — Net revenues were $159.8 million and $127.8 million for the nine months ended September 30, 2023 and 2022, respectively, representing an increase of $32.0 million or 25.1%. This increase in net sales for the nine months ended September 30, 2023 over the comparative period was primarily due to a $22.5 million increase in revenue from PV components sales. This increase was mainly due to a strategic cooperation with a major supplier, allowing for the procurement of PV components at a reduced costs and subsequently, enabling sales at more competitive prices. Moreover, the increase was also due to $25.4 million generated from sales of solar modules following the commencement of our self-assembled solar modules business in the second half of year 2022, as well as a one-time sale of pre-developed PV project in Oregon for $6.7 million during nine months ended September 30, 2023. The overall increase was partially net off a $21.5 million decrease in revenue from roofing and solar energy systems installation. The decrease was due to our downsizing strategy, implemented in response to low profitability resulting from lower-than-expected project management efficiency and escalating operational costs. While we currently plan to continue this business and we consistently assess the market demand, the scale and geographic scope of the roofing and solar energy system installation business. Our primary focus remains on ensuring profitability, and we intend to persist in this approach moving forward.

Cost of revenues — Cost of revenues was $142.7 million (89.3% of net revenue) and $124.0 million (97.1% of net revenue) for the nine months ended September 30, 2023 and 2022, respectively, representing an increase of $18.6 million or 15.0%. The increase in cost of goods sold was consistent with the increase of net revenues.

Gross profit — Our gross profit increased to $17.1 million in the nine months ended September 30, 2023 from $3.7 million in the nine months ended September 30, 2022. Gross margins were 10.7% and 2.9% for the nine months ended September 2023 and 2022, respectively. The increase in gross margin was primarily due to the increase in gross margin of sales of solar modules and the decrease of total revenue from the low gross margin roofing and solar energy system installation and its percentage in the total revenue.

General and administrative expenses — General and administrative expenses were $16.9 million (10.6% of net revenue) and $17.7 million (13.9% of net revenue) for the nine months ended September 30, 2023 and 2022, respectively, representing an decrease of $0.8 million, or 4.7%. The overall decrease in general and administrative expenses was mainly due to $3.0 million decrease in employee salary and office rent expense related to roofing and solar energy systems installation business due to our downsizing strategy. The decrease was partially offset by the increase in rental and labor expenses for self-assembled solar modules business as we started sales of self-assembled solar modules business in the second half of year 2022.

Sales, marketing and customer service expenses — Sales, marketing and customer service expenses were $1.9 million (1.2% of net revenue) and $2.4 million (1.9% of net revenue) for the nine months ended September 30, 2023 and 2022, respectively. The decrease in sales, marketing and customer service expenses was primarily due to decrease in employee salaries for sales personnel related to roofing and solar energy systems installation business due to our downsizing strategy.

Provision (reversal) for credit losses — In the nine months ended September 30, 2023, we accrued credit loss provision of $0.9 million which is mainly due to additional provision made for the accounts receivable from the business of roofing and solar energy systems installation business. In the nine months ended September 30, 2022, we reversed credit loss provision of $0.4 million, primarily due to the strengthening monitoring on accounts receivable collection.

Interest expense, net — Interest expense, net was $6.0 million (3.8% of net sales) and $4.3 million (3.4% of net sales) for the nine months ended September 30, 2023 and 2022, respectively. The increase in interest expense was primarily due to interest accrued from convertible bonds issued in April 2022 as well as debt discount amortization.

Net foreign exchange gain — We had a net foreign exchange gain of $0.3 million (0.2% of net revenue) and $5.9 million (4.6% of net revenue) for the nine months ended September 30, 2023 and 2022, respectively. The variance is mainly due the fluctuation of exchange rate for EUR/USD and AUD/USD.

Employee retention credit ("ERC") tax refund, Gain on early termination of leases and PPP loan forgiveness - We incurred total ERC tax refund of $3.3 million for the nine months ended September 30, 2023 due to U.S. government's relief for COVID-19 impact and total gain from forgiveness of PPP Loan of $4.5 million for the nine months ended September 30,2022. We full impairment charges on our right-of-use assets in our roofing and solar energy systems installation business during the year ended December 31, 2022. During the nine months ended September 30, 2023, the leases related to the fully impaired right-of-use assets were early terminated, resulting in a gain on early termination of leases.

Income tax expense — We had a provision for income taxes of $1.7 million (1.0% of net revenue) and $1.4 million (1.1% of net revenue) for the nine months ended September 30, 2023 and 2022, respectively. The income tax expense kept stable as there was no significant change in profit before tax of our subsidiary in Australia.

Net loss from continuing operation — For the foregoing reasons, we incurred a net loss of $5.6 million (3.5% of net revenue), for the nine months ended September 30, 2023 from continuing operations, representing a decrease of net loss of $8.7 million compared to a net loss from continuing operation of $14.3 million (11.2% of net revenue) for the nine months ended September 30, 2022.

Discontinued operations and net loss from discontinued operations

On September 26, 2023, the Group sold 56.36% of its ownership of Phoenix Motor Inc. ("Phoenix") to Palo Alto Clean Tech Holding Limited ("Palo Alto", the Buyer), an entity controlled by Xiaofeng Peng, the Group's Chairman of the Board of Directors and Chief Executive Officer, for the purpose of concentrating on its remaining major business lines. Phoenix was a reportable segment of the Group, primarily operates in design, assembly, and integration of electric drive systems for medium duty electric vehicles ("EVs"). As of September 30, 2023, the disposal was complete, therefore, the Group presented the Phoenix as discontinued operations in the consolidated financial statements.

Net Revenue - Net Revenue from the operations of the discontinued operations increased by 25.1% from US$2.6 million for the nine months ended September 30, 2022 to US$3.2 million for the nine months ended September 30, 2023. The increase in net sales for the nine months ended September 30, 2023 over the comparative period was primarily driven by an increase in EV delivery compared to the nine month ended September 30,2022, as a result of easing supply chain constraints and certain software related issues being resolved, partially offset by a decrease in forklift sales due to a slowdown in demand during the nine months ended September 30, 2023 compared to the nine month ended September 30, 2022

Cost of Sales - Cost of Sales from the operations of the discontinued operations increased by 55.0% from US$2.0 million for the nine months ended September 30, 2022 to US$3.1 million for the nine months ended September 30, 2023. The increase in cost of revenues is primarily driven by an increase in revenue, and a change in products mix reflecting a higher volume and the higher material costs and manufacturing overheads of EVs.

Selling, general and administrative expense - Selling, general and administrative expense from the operations of the discontinued operations increased by 3.5% from US$9.2 million for the nine months ended September 30, 2022 to US$9.5 million for the nine months ended September 30, 2023. The slight increase is principally due to an increase in research and development expenses, partially offset by a decrease in salaries expenses.

Other income, net - Other income, net from the operations of the discontinued operations increased by 68.4% from US$0.4 million for the nine months ended September 30, 2022 to US$0.7 million for the nine months ended September 30, 2023. Other income, net for the nine months ended September 30, 2023 was generated from the refund of ERC from IRS, partially offset by the interest expense resulted from debt discount amortization of convertible note. Other income, net for the nine months ended September 30, 2022 was generated from the recognition of a forgiven PPP loan and refund of ERC from IRS, partly offset by the loss related to a phishing scam.

Net loss - Net loss from the operations of the discontinued operations remained stable, increased slightly by 6.0% from US$8.2 million for the nine months ended September 30, 2022 to US$8.7 million for the nine months ended September 30, 2023.

Liquidity and Capital Resources

Historically, we have financed our operations primarily through cash flows from bank borrowings, financing from issuance of convertible bonds, operating activities, and the proceeds from private placements and registered offerings.

As of September 30, 2023, we had $7.8 million in cash and cash equivalents, and restricted cash.

We suffered a net loss of $5.6 million during the nine months ended September 30, 2023 from continuing operations. As of September 30, 2023, there was net working capital deficit of $114.7 million and accumulated deficit of $684.7 million. These factors raise substantial doubt as to the Group's ability to continue as a going concern.

For the next 12 months from the issuance date of this report, we plan to continue implementing various measures to boost revenue and control the cost and expenses within an acceptable level. Such measures include: 1) negotiate with potential buyers on PV solar projects; 2) negotiate for postponing of convertible bond payments; 3) improve the profitability of the business in the United States; 4) proactively implement a robust capital market strategy that includes both debt and equity offerings to meet the Group's financing needs; 5) strictly control and reduce business, marketing and advertising expenses and 6) seek for certain credit facilities.

If we fail to achieve these goals, we may need additional financing to repay debt obligations and execute our business plan, and we may not be able to obtain the necessary additional capital on a timely basis, on acceptable terms, or at all. In the event that financing sources are not available, or that we are unsuccessful in increasing our gross profit margin and reducing operating losses, we may be unable to implement our current plans for expansion, repay debt obligations or respond to competitive pressures, any of which would have a material adverse effect on our business, financial condition and results of operations and may materially adversely affect our ability to continue as a going concern.

The unaudited condensed consolidated financial statements do not include any adjustments related to the recoverability and classification of recorded assets or the amounts and classification of liabilities or any other adjustments that might be necessary should we be unable to continue as a going concern.

A summary of the sources and uses of cash and cash equivalents is as follows (in thousands):

	For the Nine Months Ended September 30,	
	2023 (Unaudited)	2022 (Unaudited)
Net cash provided by operating activities of continuing operations	$ 4,831	$ 1,275
Net cash used in operating activities of discontinued operations	(2,542)	(14,243)
Net cash used in investing activities of continuing operations	(1,268)	(4,166)
Net cash used in investing activities of discontinued operations	(162)	(449)
Net cash used in financing activities of continuing operations	(7,161)	(66)
Net cash provided by financing activities of discontinued operations	2,751	13,569
Effect of exchange rate changes on cash	368	(968)
Net decrease in cash, cash equivalents and restricted cash	$ (3,183)	$ (5,048)

Operating Activities

Net cash provided by operating activities from continuing operations was $4.8 million for the nine months ended September 30, 2023, primarily as a result of (i) net loss of $5.6 million, adjusted by depreciation and amortization of $2.2 million, stock-based compensation of $1.2 million, amortization of right-of-use assets of $1.3 million, non-cash accrued interest expense of $3.0 million, amortization of debt discount of $2.4 million, credit loss of $0.9 million and write down of inventories of $1.1 million; (ii) increase in accounts payable of $15.6 million; and (iii) decrease in project assets of $3.9 million; which was partially offset by (i) increase in accounts receivable of $3.5 million, (ii) increase in prepaid expenses and other current assets of $2.1 million, (iii) increase in inventories of $11.7 million, (iv) decrease in lease liabilities of $2.7 million, (v) decrease in advance from customers of $1.8 million, and (vi) decrease in accrued expenses and other current liabilities of $1.1 million.

Net cash provided by operating activities from continuing operations was $1.3 million for the nine months ended September 30, 2022, primarily as a result of (i) net loss of $14.3 million, adjusted by non-cash transactions including, gain on forgiveness of PPP loan of $4.5 million, loss on extinguishment of convertible bonds of $2.6 million, stock-based compensation expense of $2.1 million, depreciation and amortization of $1.4 million, and changes in operating assets and liabilities including (ii) increase in accrued liabilities and other liabilities of $7.6 million, (iii) increase in accounts payable of $5.6 million, both due to slow payment of liabilities as a result of capital shortage (iv) decrease in accounts receivable of $2.9 million due to closer monitoring on collections, (v) increase in advances from customers of $1.8 million due to collection from customers while slow progress of the uncompleted jobs, (vi) decrease in prepaid expenses and other current assets of $0.3 million, partially offset by (vii) decrease of amount due to related parties of $4.3 million.

Investing Activities

Net cash used in investing activities from continuing operations was $1.3 million for the nine months ended September 30, 2023, primarily consisted of (i) cash paid for purchase of property and equipment of $0.9 million, and (ii) net cash outflow from deconsolidation of Phoenix of $0.4 million.

Net cash used in investing activities from continuing operations was $4.2 million for the nine months ended September 30, 2022, primarily as a result of cash paid for purchase of property and equipment of $5.8 million, partially offset by proceeds from disposal of equipment of $1.7 million.

Financing Activities

Net cash used in financing activities from continuing operations was $ 7.2 million for the nine months ended September 30, 2023, primarily consisted of (i) repayment of borrowings of $148.5 million, and (ii) repayment of convertible debt of $0.4 million; partially offset by (i) proceeds received from borrowing of $141.7 million.

Net cash used in financing activities from continuing operations was $66 thousand for the nine months ended September 30, 2022, primarily consisted of (i) repayment of borrowings of $114.6 million; and partially net off by (i) proceeds from borrowings of $112.5 million, and (ii) proceeds from issuance of convertible bond, net of debt discount of $2.0 million.

Capital Expenditures

We incurred capital expenditures of $0.9 million and $5.8 million for the nine months ended September 30, 2023 and 2022 from continuing operations, respectively. There are no capital commitments as of September 30, 2023.

Trend information

Our operating results substantially depend on revenues derived from sales of PV project assets, provision of electricity, our Australian subsidiary's trading of PV components, and our U.S. subsidiary's business on roofing and solar energy systems installation and sale of solar modules, respectively. As the COVID-19 spread and impact of the outbreak of war in Ukraine continues, the measures implemented to curb the spread of the virus and the crisis in Ukraine have resulted in supply chain disruptions, insufficient work force and suspended manufacturing and construction works for solar industry. In addition, the escalation of the conflicts in Israel in October 2023 could potentially disrupt global economic conditions and destabilize the Middle East region. In light of the rapidly changing situation across different countries and regions, it remains difficult to estimate the duration and magnitude of the impact of COVID-19, the crisis in Ukraine, and the Middle East conflicts.

Other than as disclosed elsewhere in this quarterly report, we are not aware of any trends, uncertainties, demands, commitments or events for the nine months ended September 30, 2023 that are reasonably likely to have a material effect on our net revenues, income, profitability, liquidity or capital resources, or that would cause reported consolidated financial information not necessarily to be indicative of future operating results or financial conditions.

Off-Balance Sheet Arrangements

As of September 30, 2023, we had no off-balance sheet arrangements that are or have been reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures, or capital resources that are material to investors. We have not entered into any derivative contracts that are indexed to our own shares and classified as shareholder's equity, or that are not reflected in our unaudited condensed consolidated financial statements. We do not have any retained or contingent interest in assets transferred to an unconsolidated entity that serves as credit, liquidity or market risk support to such entity. We do not have any variable interest in any unconsolidated entity that provides financing, liquidity, market risk or credit support to us or engages in leasing, hedging or research and development services with us.

For more information on our contractual obligations, commitments and contingencies, see Note 10 to the unaudited condensed consolidated financial statements in Part I, Item 1 of this Quarterly Report Form 10-Q.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

Not applicable to smaller reporting companies.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our principal executive officer and principal financial and accounting officer, we conducted an evaluation of the effectiveness of our disclosure controls and procedures as of the end of the fiscal quarter ended September 30, 2023, as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act. Based on this evaluation, our principal executive officer and principal financial and accounting officer have concluded that during the period covered by this report, our disclosure controls and procedures were not effective as of such date to ensure that information required to be disclosed by us in our Exchange Act reports is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial and accounting officer or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

In connection with the audit of our consolidated financial statements for the year ended December 31, 2022, we identified following material weaknesses, in the design or operation of internal controls.

(1) Failure to maintain an effective control environment of internal control over financial reporting;

(2) Failure to develop an effective risk assessment process to identify and evaluate at a sufficient level of detail all relevant risks of material misstatement, including business, operational, and fraud risks;

(3) Ineffective monitoring activities to assess the operation of internal control over financial reporting;

(4) Ineffective process-level controls associated with the revenue, purchasing and inventory, treasury, property and equipment, tax, and payroll processes that (a) addressed relevant risks, (b) provided sufficient evidence of performance, and (c) established appropriate segregation of duties, during the financial reporting processes;

(5) Lack of sufficient controls designed and implemented for financial information processing and reporting and lacked resources with requisite skills for the financial reporting under U.S. GAAP; and

(6) Lack of sufficient controls designed and implemented in IT environment and IT general control activities, which mainly associated with areas of logical access security, system change, computer operation and service organization control monitoring activities. Certain process-level automated controls and manual controls that are dependent on the completeness and accuracy of information derived from the affected information technology systems were also ineffective.

We intend to implement measures designed to improve the Company's internal control over financial reporting to address the underlying causes of these material weaknesses, including:

(1) Strengthen overview and monitoring from the Company's governance, and set up the Company's internal audit department who reports to the audit committee directly, to ensure enhanced oversight over the Company's financial reporting function.

(2) Engage a professional adviser to review, test and optimize the Company's internal control system, particularly focusing on the material weaknesses identified as above.

(3) Launch and improve the internal control execution plan to supervise and monitor the operational functions.

(4) Establish a formal and systematic risk assessment program and involve upper management to identify and analyze risks.

(5) Provide our accounting team and other relevant personnel with more comprehensive guidelines and training on the policies and controls over financial reporting under U.S. GAAP and SEC rules and requirements

(6) Strengthen the review controls on journal entries and accounting treatments and adjustment by providing our accounting team with more comprehensive guidelines on the policies and controls over financial reporting under U.S. GAAP and SEC rules and requirements.

(7) Enhance management monitoring and review of key processes with more comprehensive guidelines on the policies and controls over financial reporting.

(8) Strengthen the monitoring and evaluation of the independent and competent tax and accounting agencies.

(9) Strengthen the supervision and controls on the IT functions, including the enhancement of logical security and monitor service provider

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting that occurred during the fiscal quarter of 2023 covered by this Quarterly Report on Form 10-Q that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II - OTHER INFORMATION

Item 1. Legal Proceedings

From time to time, we are involved in various legal proceedings arising in the normal course of business. While we cannot predict the occurrence or outcome of these proceedings with certainty, we do not believe that an adverse result in any currently pending legal proceeding to which the Company is a party, individually or in the aggregate, would have a material adverse effect on the Company's business, prospects, financial condition, cash flows, or results of operations other than the following:

As previously disclosed, in June 2018, we, as claimant, filed arbitration proceedings in Malta against SINSIN Europe Solar Asset Limited Partnership and SINSIN Solar Capital Limited Partnership (hereinafter collectively, "SINSIN"), as respondents, for an alleged breach of a share sale and purchase agreement, dated September 6, 2014, entered into between the respondents, as sellers, and us, as purchaser, in relation to all of the shares in Sinsin Renewable Investment Limited, a Malta company ("SRIL"). On January 1, 2017, we had deconsolidated SRIL due to loss of control.

SINSIN filed separate arbitration proceedings in Malta against us, requesting payment of the balance of the purchase price due in terms of the share purchase agreement mentioned above (stated to be EUR38,054,000), together with interest. We contested these claims. Meanwhile, SINSIN has obtained the status of a precautionary garnishee order against us as security for its claims and has had the same order served on SRIL, with a view to freezing any payments that may be due by SRIL to us.

On October 29, 2020, awards were issued in both cases, pursuant to which the arbitration tribunal dismissed all of our claims and admitted SINSIN's counterclaim for payment of the balance of the price of €38,054,000, with interest at 6% accruing from November 30, 2015, on half of this amount, and from June 20, 2016, on the other half. SINSIN's claims for additional damages were rejected. All costs of case 5320/18 are to be borne by us, while the costs for case 5532/18 are to be borne 80% by us and 20% by SINSIN.

On November 13, 2020, we filed Appeal Applications to appeal the arbitration awards with the Malta Court of Appeal (Inferior Jurisdiction) (the "Malta Court"). On November 12, 2021, the Malta Court declared our appeals null and void and ordered us to pay costs. We then applied for new trials in each case before the Malta Court. On March 30, 2022, the Chief Justice of the Malta Court dismissed our requests in both actions. We are aware that on

November 2, 2022, Sinsin filed an action to confirm these arbitral awards pursuant to the Convention on the Recognition and Enforcement of Foreign Arbitral Awards of June 10, 1958 ("New York Convention") as implemented by the Federal Arbitration Act ("FAA") before U.S. District Court Eastern District of California. On April 27, 2023, Sinsin filed amended petition to add a request for an award of attorneys' fees incurred in connection with the petition, add detail on the allegedly owed costs and liabilities, and request that the court issue an injunction against asset dissipation pending satisfaction of the requested judgment.

On October 2, 2023, the United States District Court Eastern District of California (the "Court") filed an order dated September 29, 2023 about the action (see also Note 10). Pursuant to the order, (i) SPI shall pay Sinsin the amounts no less than $60.4 million, subject to a continuing interest rate of six percent accruing from November 30, 2015 on half of the outstanding balance owed under the parties' Share Sale and Purchase Agreement dated September 6, 2014 ("SPA") (€19million), and accruing from June 20, 2016 on the remaining half of the outstanding amount owed under the SPA (€19million); (ii) Sinsin' request for a worldwide asset freeze to prevent SPI from dissipating its assets was denied by the Court without prejudice to renewal as necessary should SPI fail to comply with the Court's orders; and (iii) Sinsin' motion for an award of attorneys' fees and costs was granted by the Court. On October 2, 2023, the Court entered a judgement in accordance with such order.

On February 16, 2023, we received a Redemption Notice from Streeterville to redeem $350 of the 2022 Note with a deadline to pay the Redemption Amount by February 22, 2023. We failed to pay the Redemption Amount on time and such failure to pay is an Event of Default under the 2022 Note. Due to this Event of Default, (i) the base interest of the 2022 Note was increased to 15% per annum; (ii) the outstanding balance of the 2022 Note was increased by 15%; and (iii) the entire outstanding balance of the 2022 Note was accelerated and due on March 3, 2023. We failed to pay the outstanding balance of the 2022 Note by March 3, 2023 and as a result, Streeterville filed a complaint in the third judicial district court of Salt Lake County, requesting for actual damages in an amount not less than $2,676, plus applicable interest, damages, charges, fees, attorney fees, and collection costs. On March 31, 2023, a hearing was held and the temporary restraining order requiring us to pay the 2022 Note in full from the proceeds of the IPO of our subsidiary, SolarJuice Co., Ltd. On June 26, 2023, Streeterville and the Group entered into a term sheet to mediate the dispute. The Group agreed to pay Streeterville $375 in cash and $400 in stock by July 5, 2023. After that, the Group agreed to pay Streeterville $425 each month starting from July 31, 2023. Among the monthly installment payments, at least $225 shall be paid in cash.

On July 5, 2023, SPI paid $375,000 in cash and $400,000 in stock but failed to make Settlement Payments due on July 31, 2023 and August 31, 2023. Five days have passed since the Default Notice. And SPI has not cured its default. Accordingly, Streeterville is entitled to judgment against SPI in the amount of $1,825,000 ($2,800,000 less SPI's Settlement Payments of $975,000), together with an order extending the Injunction (On June 10, 2023, this Tribunal issued a Ruling and Order that, among other things, enjoined SPI "from issuing, selling, encumbering, or otherwise disposing of any of its shares or equity [(the "Injunction")] during the pendency of the arbitration unless the Note is paid simultaneously with such issuance.) until the judgment amount, including interest at 15% per annum accruing from July 31, 2023, is paid in full.

Item 1A. Risk Factor

This information has been omitted based on the Company's status as a smaller reporting company.

Item 2. Unregistered Sales of Equity Securities, Use of Proceeds from Registered Securities and Issuer Purchases of Equity Securities

None.

Item 3. Defaults upon senior securities

None.

Item 4. Mine safety disclosures

Not applicable.

Item 5. Other information

During our fiscal quarter ended September 30, 2023, none of our directors or officers informed us of the adoption or termination of a "Rule 10b5-1 trading arrangement" or "non-Rule 10b5-1 trading arrangement" as those terms are defined in Item 408(a) of Regulation S-K

Item 6. Exhibits.

Exhibit No.	Description
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14 and Rule 15d-14(a), promulgated under the Securities and Exchange Act of 1934, as amended.
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14 and Rule 15d-14(a), promulgated under the Securities and Exchange Act of 1934, as amended.
32	Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted 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
104.	Cover Page Interactive Data File

SIGNATURES

In accordance with the requirements of the Exchange Act, the registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

SPI ENERGY CO., LTD.

By: */s/* Xiaofeng Peng
Xiaofeng Peng
Chief Executive Officer
(Principal executive officer)

By: */s/* Janet Chen
Janet Chen
Chief Financial Officer
(Principal financial and accounting officer)

Date: November 20, 2023

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO RULE 13A-14(A) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Xiaofeng Peng, certify that:

1. I have reviewed this quarterly report on Form 10-Q of SPI Energy Co., Ltd.;

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

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

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

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

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

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

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

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

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

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

   Date: November 20, 2023

/s/ Xiaofeng Peng
Xiaofeng Peng
Chief Executive Officer
(Principal executive officer)

Exhibit 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO RULE 13A-14(A) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Janet Chen, certify that:

1. I have reviewed this quarterly report on Form 10-Q of SPI Energy Co., Ltd.;

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

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

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

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

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

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

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

5. The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):

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

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

Date: November 20, 2023

/s/ Janet Chen
Janet Chen
Chief Financial Officer
(Principal financial and accounting officer)

Exhibit 32

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

In connection with the Quarterly Report of SPI Energy Co., Ltd. (the “Company”) on Form 10-Q for the quarter ended September 30, 2023 as filed with the Securities and Exchange Commission (the “Report”), each of the undersigned, in the capacities and on the dates indicated below, hereby certifies pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

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

Date: November 20, 2023

/s/ Xiaofeng Peng
Xiaofeng Peng
Chief Executive Officer
(Principal executive officer)

Date: November 20, 2023

/s/ Janet Chen
Janet Chen
Chief Financial Officer
(Principal financial and accounting officer)