

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-Q

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

For the quarterly period ended September 30, 2024

Commission file number 000-33067

BIRCHTECH CORP.

(Exact name of Registrant as Specified in its Charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

87-0398271

(I.R.S. Employer
Identification No.)

**1810 Jester Drive
Corsicana, Texas**

(Address of principal Executive offices)

75109

(Zip Code)

(614) 505-6115

(Registrant's Telephone Number, Including Area Code)

Not applicable

(Former Name, Former Address and Former Fiscal Year, if Changed Since Last Report)

Securities registered pursuant to Section 12(b) of the Act: None.

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 the definition of "large accelerated filer", "accelerated filer", "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer
Non-accelerated filer

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 by Rule 12b-2 of the Exchange Act). Yes No

State the number of shares outstanding of each of the Issuer's classes of common stock, as of the latest practicable date: Common, \$.001 par value per share, 96,178,153 outstanding as of November 14, 2024.

BIRCHTECH CORP.
(formerly Midwest Energy Emissions Corp.)
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FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains “forward-looking statements,” as defined in Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, that are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 and reflect our current expectations regarding our future growth, results of operations, cash flows, performance and business prospects, and opportunities, as well as assumptions made by, and information currently available to, our management. Forward-looking statements are generally identified by using words such as “anticipate,” “believe,” “plan,” “expect,” “intend,” “will,” and similar expressions, but these words are not the exclusive means of identifying forward-looking statements. These statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking statements. Such risks include, without limitation, the following:

- the loss of major customers;
- dependence on availability and retention of key suppliers;
- changes, or lack of changes, in environmental regulations;
- risks related to advancements in technologies;
- lack of diversification in the Company’s business;
- risks related to intellectual property, including the ability to protect intellectual property and the success of any patent litigation;
- competition risks;
- changes in demand for coal as a fuel source for electricity production;
- ability to retain key personnel;
- absence of a liquid public market for our common stock;
- share price volatility;
- the potential that dividends may never be declared; and
- other factors discussed under the caption “*Risk Factors*” in the Company’s 2023 Form 10-K.

Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for us to predict which factors will arise. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. We qualify all of the information presented in this report, and particularly our forward-looking statements, by these cautionary statements.

Except to the extent required by applicable laws or rules, we undertake no obligation to publicly update or revise any forward-looking statement, whether written or oral, that may be made from time to time, whether as a result of new information, future events, or otherwise.

PART I – FINANCIAL INFORMATION

Item 1. Financial Statements.

BIRCHTECH CORP. AND SUBSIDIARIES
(formerly Midwest Energy Emissions Corp.)
CONDENSED CONSOLIDATED BALANCE SHEETS

	September 30, 2024 (Unaudited)	December 31, 2023
ASSETS		
Current assets		
Cash	\$ 4,393,872	\$ 20,939,762
Accounts receivable	1,930,396	2,233,211
Income tax receivable	144,465	-
Inventory	886,412	795,164
Prepaid expenses and other assets	235,562	183,621
Total current assets	<u>7,590,707</u>	<u>24,151,758</u>
Security deposits	5,115	5,175
Property and equipment, net	2,289,823	1,595,958
Right of use asset - operating lease	218,602	10,639
Intellectual property, net	1,550,613	1,704,063
Total assets	<u>\$ 11,654,860</u>	<u>\$ 27,467,593</u>
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)		
Current liabilities		
Accounts payable and accrued expenses (related party \$191,737 and \$107,454 at September 30, 2024 and December 31, 2023, respectively)	\$ 3,127,368	\$ 1,558,450
Income tax payable	87,734	437,821
Current portion of operating lease liability	31,990	11,157
Customer credits	167,000	167,000
Accrued salaries	572,678	8,936
Total current liabilities	<u>3,986,770</u>	<u>2,183,364</u>
Operating lease liability, net of current portion	187,170	-
Secured note payable, net of discount – related party	-	239,466
Unsecured note payable, net of discount and issuance costs – related party	-	10,979,723
Profit share liability – related party	5,567,046	14,847,937
Total liabilities	<u>9,740,986</u>	<u>28,250,490</u>
Commitments and contingencies		
Stockholders' Equity (deficit)		
Preferred stock, \$0.001 par value; 2,000,000 shares authorized, no shares issued	-	-
Common stock, \$0.001 par value; 150,000,000 shares authorized 96,178,153 and 94,360,107 shares issued and outstanding as of September 30, 2024 and December 31, 2023 respectively.	96,178	94,360
Additional paid-in capital	73,800,621	61,917,119
Accumulated deficit	(71,982,925)	(62,794,376)
Total stockholders' equity (deficit)	<u>1,913,874</u>	<u>(782,897)</u>
Total liabilities and stockholders' equity (deficit)	<u>\$ 11,654,860</u>	<u>\$ 27,467,593</u>

See accompanying notes to these condensed consolidated financial statements.

BIRCHTECH CORP. AND SUBSIDIARIES
(formerly Midwest Energy Emissions Corp.)
CONSOLIDATED STATEMENTS OF OPERATIONS
(UNAUDITED)

	For the Three Months Ended September 30, 2024	For the Three Months Ended September 30, 2023	For the Nine Months Ended September 30, 2024	For the Nine Months Ended September 30, 2023
Revenues	\$ 5,236,990	\$ 6,747,256	\$ 12,155,189	\$ 13,871,725
Cost of sales	<u>(3,642,071)</u>	<u>(4,471,788)</u>	<u>(8,056,386)</u>	<u>(9,118,279)</u>
Gross profit	<u>1,594,919</u>	<u>2,275,468</u>	<u>4,098,803</u>	<u>4,753,446</u>
Operating expenses:				
Selling, general and administrative expenses (related party of \$269,467, \$137,967, \$635,864 and \$379,634)	<u>(2,702,350)</u>	<u>(2,459,229)</u>	<u>(10,863,236)</u>	<u>(6,159,740)</u>
Total operating expenses	<u>(2,702,350)</u>	<u>(2,459,229)</u>	<u>(10,863,236)</u>	<u>(6,159,740)</u>
Operating loss	<u>(1,107,431)</u>	<u>(183,761)</u>	<u>(6,764,433)</u>	<u>(1,406,294)</u>
Other income (expense)				
Interest expense (related party of \$Nil, \$342,647, \$245,817 and \$1,017,671)	(7,356)	(344,193)	(258,990)	(1,019,217)
Gain (loss) on change in fair value of profit share and unsecured note	282,382	(299,548)	(2,672,252)	(613,445)
Other income	67,966	-	213,269	-
Total other income (expense)	<u>342,992</u>	<u>(643,741)</u>	<u>(2,717,973)</u>	<u>(1,632,662)</u>
Loss before benefit for income taxes	<u>(764,439)</u>	<u>(827,502)</u>	<u>(9,482,406)</u>	<u>(3,038,956)</u>
Benefit for income taxes	294,203	-	293,857	-
Net loss	<u>\$ (470,236)</u>	<u>\$ (827,502)</u>	<u>\$ (9,188,549)</u>	<u>\$ (3,038,956)</u>
Net loss per common share - basic and diluted	<u>\$ (0.00)</u>	<u>\$ (0.01)</u>	<u>\$ (0.10)</u>	<u>\$ (0.03)</u>
Weighted average common shares outstanding	<u>96,125,797</u>	<u>94,279,780</u>	<u>94,992,520</u>	<u>94,120,499</u>

See accompanying notes to these condensed consolidated financial statements.

BIRCHTECH CORP. AND SUBSIDIARIES
(formerly Midwest Energy Emissions Corp.)
CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY (DEFICIT)
(UNAUDITED)

	Three and Nine Months Ended September 30, 2024				
	Common Stock		Additional	Accumulated	Total
	Shares	Par Value	Paid-in Capital	(Deficit)	
Balance - January 1, 2024	94,360,107	\$ 94,360	\$ 61,917,119	\$ (62,794,376)	\$ (782,897)
Stock issued for cashless exercise of options	9,285	9	(9)	-	-
Gain on modification of related party debt	-	-	10,827,195	-	10,827,195
Share based payments	-	-	770,216	-	770,216
Net loss	-	-	-	(2,558,991)	(2,558,991)
Balance - March 31, 2024	<u>94,369,392</u>	<u>\$ 94,369</u>	<u>\$ 73,514,521</u>	<u>\$ (65,353,367)</u>	<u>\$ 8,255,523</u>
Stock issued for cashless exercise of options	1,664,797	1,665	(1,665)	-	-
Stock issued for cashless exercise of warrants	20,186	20	(20)	-	-
Share based payments	-	-	136,778	-	136,778
Net loss	-	-	-	(6,159,322)	(6,159,322)
Balance – June 30, 2024	<u>96,054,375</u>	<u>\$ 96,054</u>	<u>\$ 73,649,614</u>	<u>\$ (71,512,689)</u>	<u>\$ 2,232,979</u>
Stock issued for cashless exercise of options	32,112	32	(32)	-	-
Stock issued for exercise of warrants	25,000	25	17,475	-	17,500
Stock issued for cashless exercise of warrants	66,666	67	(67)	-	-
Share based payments	-	-	133,631	-	133,631
Net loss	-	-	-	(470,236)	(470,236)
Balance – September 30, 2024	<u>96,178,153</u>	<u>\$ 96,178</u>	<u>\$ 73,800,621</u>	<u>\$ (71,982,925)</u>	<u>\$ 1,913,874</u>

	Three and Nine Months Ended September 30, 2023				
	Common Stock		Additional	Accumulated	Total
	Shares	Amount	Paid-in Capital	(Deficit)	
Balance - January 1, 2023	93,087,796	\$ 93,088	\$ 61,188,442	\$ (68,698,389)	\$ (7,416,859)
Issuance of stock options	-	-	30,029	-	30,029
Stock issued for cash exercise of options	850,000	850	208,650	-	209,500
Stock issued for cashless exercise of options	311,880	312	(312)	-	-
Issuance of stock for compensation	-	-	120,000	-	120,000
Net loss	-	-	-	(1,446,984)	(1,446,984)
Balance - March 31, 2023	<u>94,249,676</u>	<u>\$ 94,250</u>	<u>\$ 61,546,809</u>	<u>\$ (70,145,373)</u>	<u>\$ (8,504,314)</u>
Issuance of stock options	-	-	16,260	-	16,260
Stock issued for cashless exercise of options	17,620	18	(18)	-	-
Issuance of stock for compensation	-	-	121,334	-	121,334
Net loss	-	-	-	(764,470)	(764,470)
Balance - June 30, 2023	<u>94,267,296</u>	<u>\$ 94,268</u>	<u>\$ 61,684,385</u>	<u>\$ (70,909,843)</u>	<u>\$ (9,131,190)</u>
Issuance of stock options	-	-	(20,201)	-	(20,201)
Stock issued for cashless exercise of options	31,076	30	(30)	-	-
Issuance of stock for compensation	-	-	122,666	-	122,666
Net loss	-	-	-	(827,502)	(827,502)
Balance - September 30, 2023	<u>94,298,372</u>	<u>\$ 94,298</u>	<u>\$ 61,786,820</u>	<u>\$ (71,737,345)</u>	<u>\$ (9,856,227)</u>

See accompanying notes to these condensed consolidated financial statements.

BIRCHTECH CORP AND SUBSIDIARIES
(formerly Midwest Energy Emissions Corp.)
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(UNAUDITED)

	For the Nine Months Ended September 30, 2024	For the Nine Months Ended September 30, 2023
Cash flows from operating activities		
Net loss	\$ (9,188,549)	\$ (3,038,956)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Stock-based compensation – amortization of prepaid services	1,040,625	364,001
Stock-based compensation expense	-	26,088
Amortization of discount of notes payable	241,444	999,382
Amortization of right to use assets – operating lease	23,380	30,423
Amortization of patent rights	153,450	153,450
Depreciation expense	8,159	11,454
Loss on change in fair value of profit share and unsecured note	2,672,252	613,445
Change in assets and liabilities		
Decrease in accounts receivable	302,815	228,585
Increase in income tax receivable	(144,465)	-
Decrease (Increase) in inventory	(91,248)	189,529
Decrease (Increase) in prepaid expenses and other assets	(51,881)	40,983
Increase in accounts payable and accrued liabilities	1,568,918	1,254,769
Decrease in income tax payable	(350,087)	-
Decrease (Increase) in accrued salaries	563,742	(54,634)
Decrease in operating lease liability	(23,340)	(32,375)
Net cash provided by (used in) operating activities	<u>(3,274,785)</u>	<u>786,144</u>
Cash flows from investing activities		
Purchase of property and equipment	(702,024)	(2,741)
Net cash used in investing activities	<u>(702,024)</u>	<u>(2,741)</u>
Cash flows from financing activities		
Repayment of unsecured note payable	(12,314,895)	-
Repayment of secured note payable	(271,686)	-
Proceeds from exercise of stock options	17,500	209,500
Net cash (used in) provided by financing activities	<u>(12,569,081)</u>	<u>209,500</u>
Net (decrease) increase in cash	(16,545,890)	992,903
Cash - beginning of period	<u>20,939,762</u>	<u>1,504,225</u>
Cash - end of period	<u>\$ 4,393,872</u>	<u>\$ 2,497,128</u>
SUPPLEMENTAL CASH FLOW INFORMATION:		
Cash paid during the period for:		
Interest	\$ 3,939	\$ 13,608
Taxes	\$ 200,000	\$ -
SUPPLEMENTAL DISCLOSURE OF NON-CASH TRANSACTIONS		
Capital from related party debt extinguishments	\$ 10,827,195	\$ -
Recognition of ROU asset and operating lease liability	\$ 231,343	\$ -

See accompanying notes to these condensed consolidated financial statements.

BIRCHTECH CORP. AND SUBSIDIARIES
(formerly Midwest Energy Emissions Corp.)
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
September 30, 2024 (Unaudited)

Note 1 - Organization

Birchtech Corp.

Birchtech Corp., formerly Midwest Energy Emissions Corp., is organized under the laws of the State of Delaware. Effective on October 17, 2024, Midwest Energy Emissions Corp. changed its corporate name to Birchtech, Inc. pursuant to a certificate of amendment to its certificate of incorporation filed with the State of Delaware.

MES, Inc.

MES, Inc. is incorporated in the State of North Dakota. MES, Inc. is a wholly owned subsidiary of Birchtech Corp. and is engaged in the business of developing and commercializing state of the art control technologies relating to the capture and control of mercury emissions from coal fired boilers in the United States and Canada.

ME2C Sponsor LLC and ME2C Acquisition Corp.

ME2C Sponsor LLC is a limited liability company formed in the State of Delaware and is a wholly owned subsidiary of Birchtech Corp. and owns 85% of ME2C Acquisition Corp. A decision was made in January 2023 to liquidate these entities. As such, as of December 31, 2022, the Company wrote off the assets for these entities and recorded a \$95,500 loss.

Note 2 - Liquidity and Financial Condition

Under ASC 205-40, *Presentation of Financial Statements—Going Concern*, the Company has the responsibility to evaluate whether conditions and/or events raise substantial doubt about its ability to meet its future financial obligations as they become due within one year after the date that the financial statements are issued. As required by ASC 205-40, this evaluation shall initially not take into consideration the potential mitigating effects of plans that have not been fully implemented as of the date the financial statements are issued. The accompanying unaudited condensed consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (“GAAP”), which contemplate continuation of the Company as a going concern and realization of assets and satisfaction of liabilities in the normal course of business and do not include any adjustments that might result from the outcome of any uncertainties related to our going concern assessment.

As reflected in the unaudited condensed consolidated financial statements, the Company had approximately \$4.4 million in cash at September 30, 2024. In addition, the Company had working capital of approximately \$3.6 million and an accumulated deficit of approximately \$72.0 million at September 30, 2024.

The accompanying unaudited condensed consolidated financial statements as of September 30, 2024 have been prepared assuming the Company will continue as a going concern. Based upon the Company’s current cash position, revenues from operations and the recent debt repayment and restructuring (see Note 7 - Related Party), management believes the Company will have sufficient working capital to fund operations for at least the next twelve months from the date of issuance of these financial statements.

Note 3 - Basis of Presentation and Summary of Significant Accounting Policies

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”) and pursuant to the rules and regulations of Rule 8-03 of Regulation S-X promulgated by the United States Securities and Exchange Commission (“SEC”) for interim financial information. Accordingly, these financial statements do not include all of the information and footnotes required for complete financial statements and should be read in conjunction with the audited consolidated financial statements and accompanying notes included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2023 filed on April 16, 2024, from which the accompanying condensed consolidated balance sheet dated December 31, 2023 was derived.

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In the opinion of the Company's management, the accompanying unaudited condensed consolidated financial statements contain all adjustments (consisting of items of a normal and recurring nature) necessary to present fairly the Company's financial position as of September 30, 2024, and results of operations, changes in stockholders' deficit and cash flows for all periods presented. The interim results presented are not necessarily indicative of results that can be expected for a full year.

Principles of Consolidation

The unaudited condensed consolidated financial statements include the accounts of Birchtech Corp. (formerly Midwest Energy Emissions Corp.) and its wholly-owned subsidiaries, MES, Inc. and ME2C Sponsor LLC, and ME2C Acquisition Corp. which is 85% owned by ME2C Sponsor LLC (collectively, the "Company"). Intercompany balances and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of unaudited condensed consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, valuation of equity issuances and disclosures of contingent assets and liabilities at the date of the unaudited condensed consolidated financial statements and the reported amounts of revenue and expenses during the reporting period. The Company uses estimates in accounting for, among other items, profit share liability, revenue recognition, allowance for doubtful accounts, stock-based compensation, income tax provisions, excess and obsolete inventory reserve and impairment of intellectual property. Actual results could differ from those estimates.

Recoverability of Long-Lived and Intangible Assets

Long-lived assets and certain identifiable intangibles held and used by the Company are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Events relating to recoverability may include significant unfavorable changes in business conditions, recurring losses or a forecasted inability to achieve break-even operating results over an extended period. The Company evaluates the recoverability of long-lived assets based upon forecasted undiscounted cash flows. Should impairment in value be indicated, the carrying value of the long-lived and/or intangible assets would be adjusted, based on estimates of future undiscounted cash flows.

The Company has evaluated the recoverability of the carrying value of the Company's property and equipment, right of use asset and intellectual property. No impairment charges were recognized for the three and nine months ended September 30, 2024 and 2023.

Fair Value of Financial Instruments

The fair value hierarchy has three levels based on the inputs used to determine fair value, which are as follows:

- Level 1* — Unadjusted quoted prices available in active markets for the identical assets or liabilities at the measurement date.
- Level 2* — Unadjusted quoted prices in active markets for similar assets or liabilities, or unadjusted quoted prices for identical or similar assets or liabilities in markets that are not active, or inputs other than quoted prices that are observable for the asset or liability.
- Level 3* — Unobservable inputs that cannot be corroborated by observable market data and reflect the use of significant management judgment. These values are generally determined using pricing models for which the assumptions utilize management's estimates of market participant assumptions.

The fair value hierarchy requires the use of observable market data when available. In instances where the inputs used to measure fair value fall into different levels of the fair value hierarchy, the fair value measurement has been determined based on the lowest level input significant to the fair value measurement in its entirety. The Company's assessment of the significance of a particular item to the fair value measurement in its entirety requires judgment, including the consideration of inputs specific to the asset or liability.

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The profit share liability is the only item measured at fair value on a recurring basis by the Company at September 30, 2024 and December 31, 2023. The profit share liability is considered to be Level 3 measurements.

Financial instruments include cash, accounts receivable, accounts payable, and short-term debt. The carrying amounts of these financial instruments approximated fair value at September 30, 2024 and December 31, 2023 due to their short-term maturities.

The fair value of the notes payable at December 31, 2023 approximated the carrying amount, as the notes were recently issued at interest rates prevailing in the market. The fair value of the notes payable was determined on a Level 2 measurement. Discounts on issued debt, as well as debt issuance costs, are amortized over the term of the individual notes.

At September 30, 2024, the fair value of the profit share liability is calculated using a discounted cash flow model based on estimated future cash payments. The fair value of the profit share liability at December 31, 2023 was also calculated using a discounted cash flow model based on estimated future cash payments. At September 30, 2024 and December 31, 2023, the fair value of the profit share liability was determined on a Level 3 measurement. These values are determined using pricing models for which the assumptions utilized management's estimates.

The following tables present the Company's liabilities that are measured at fair value on a recurring basis and are categorized using the fair value hierarchy.

	Fair Value Measurement as of			
	September 30, 2024			
	Total	Level 1	Level 2	Level 3
Liabilities:				
Profit share liability – related party (1)	\$ 5,567,046	\$ -	\$ -	\$ 5,567,046
Total Liabilities	<u>\$ 5,567,046</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 5,567,046</u>

	Fair Value Measurement as of			
	December 31, 2023			
	Total	Level 1	Level 2	Level 3
Liabilities:				
Profit share liability – related party (1)	\$ 14,847,937	\$ -	\$ -	\$ 14,847,937
Total Liabilities	<u>\$ 14,847,937</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 14,847,937</u>

(1) See Note 7 - Related Party

Revenue Recognition

The Company records revenue in accordance with ASC 606, *Revenue from Contracts with Customers*. The core principle of the guidance is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. To achieve that core principle, an entity should apply the following steps:

- Step 1: Identify the contract(s) with a customer.
- Step 2: Identify the performance obligations in the contract.
- Step 3: Determine the transaction price.
- Step 4: Allocate the transaction price to the performance obligations in the contract.
- Step 5: Recognize revenue when (or as) the entity satisfies a performance obligation.

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Revenue is recognized when the Company satisfies its performance obligation under the contract by transferring the promised product to its customer that obtains control of the product. A performance obligation is a promise in a contract to transfer a distinct product to a customer. Most of the Company's contracts have a single performance obligation, as the promise to transfer products or services is not separately identifiable from other promises in the contract and, therefore, not distinct.

Revenue is measured as the amount of consideration the Company expects to receive in exchange for transferring products. As such, revenue is recorded net of returns, allowances, customer discounts, and incentives. Sales and other taxes are excluded from revenues. Invoiced shipping and handling costs are included in revenue.

Disaggregation of Revenue

The Company generated revenue for the three and nine months ended September 30, 2024 and 2023 by (i) delivering product to its commercial customers, (ii) completing and commissioning equipment projects at commercial customer sites and (iii) performing demonstrations of its technology at customers with the intent of entering into long term supply agreements based on the performance of the Company's products during the demonstrations and (iv) licensing its technology to customers.

Revenue for product sales is recognized at the point of time in which the customer obtains control of the product, at the time title passes to the customer upon shipment or delivery of the product based on the applicable shipping terms.

Revenue for equipment sales is recognized upon commissioning and customer acceptance of the installed equipment per the terms of the purchase contract.

Revenue for demonstrations and consulting services is recognized when performance obligations contained in the contract have been completed, typically the completion of necessary field work and the delivery of any required analysis per the terms of the agreement.

The following table presents sales by operating segment disaggregated based on the type of product for the three and nine months ended September 30, 2024 and 2023. All sales were in the United States.

	For the Three Months Ended September 30, 2024	For the Three Months Ended September 30, 2023
Product revenue	\$ 5,092,123	\$ 6,672,542
License revenue	133,125	52,500
Demonstrations & Consulting revenue	9,000	27,000
Equipment revenue	2,742	(4,786)
	<u>\$ 5,236,990</u>	<u>\$ 6,747,256</u>

	For the Nine Months Ended September 30, 2024	For the Nine Months Ended September 30, 2023
Product revenue	\$ 11,479,147	\$ 13,103,653
License revenue	588,750	671,250
Demonstrations & Consulting revenue	27,000	81,000
Equipment revenue	60,292	15,822
	<u>\$ 12,155,189</u>	<u>\$ 13,871,725</u>

Accounts receivable and allowance for credit losses

Accounts receivable are presented net of an allowance for credit losses. The Company maintains allowances for credit losses. The Company reviews the accounts receivable on a periodic basis and makes general and specific allowances when there is doubt as to the collectability of individual balances. In evaluating the collectability of individual receivable balances, the Company considers many factors, including the age of the balance, a customer's payment history, its current credit-worthiness and current economic trends. Accounts are written off after exhaustive efforts at collection.

Management believed that the accounts receivable were fully collectable and no allowance for credit losses was deemed to be required on its accounts receivable at September 30, 2024. The Company historically has not experienced significant uncollectible accounts receivable. As of September 30, 2024 and December 31, 2023, the Company's allowance for credit losses was \$0.

Income Taxes

The Company follows the asset and liability method of accounting for income taxes under FASB ASC 740, *Income Taxes*. Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred income tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that included the enactment date. Valuation allowances are established, when necessary, to reduce deferred tax assets to the amount expected to be realized.

FASB ASC 740 prescribes a recognition threshold and a measurement attribute for the financial statement recognition and measurement of tax positions taken or expected to be taken in a tax return. For those benefits to be recognized, a tax position must be more likely than not to be sustained upon examination by taxing authorities. There were no unrecognized tax benefits as of September 30, 2024 and 2023. The Company is currently not aware of any issues under review that could result in significant payments, accruals or material deviation from its position. The Company is no longer subject to tax examinations by tax authorities for the years prior to 2019.

The Company may be subject to potential examination by federal, state, and city taxing authorities in the areas of income taxes. These potential examinations may include questioning the timing and amount of deductions, the nexus of income among various tax jurisdictions, and compliance with federal, state, and city tax laws. Management does not expect that the total amount of unrecognized tax benefits will materially change over the next twelve months.

Basic and Diluted Income (Loss) Per Common Share

Income per share – basic is calculated by dividing net income by the weighted average number of shares of stock outstanding during the year, including shares issuable without additional consideration. Income per share – assuming dilution is calculated by dividing net income by the weighted average number of shares outstanding during the year adjusted for the effect of dilutive potential shares from options and warrants calculated using the treasury stock method and the if-converted method for preferred stock. There were no dilutive potential common shares for periods ended September 30, 2024 and 2023, because the Company incurred a net loss and basic and diluted losses per common share are the same.

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Total common stock equivalents excluded from dilutive loss per share are as follows:

	<u>September 30, 2024</u>	<u>September 30, 2023</u>
Stock options	9,300,000	17,191,722
Warrants	775,000	2,650,000
Restricted stock units	50,000	-
Total common stock equivalents excluded from dilutive loss per share	<u>10,125,000</u>	<u>19,841,722</u>

Concentration of Credit Risk

Financial instruments that subject the Company to credit risk consist of cash and equivalents on deposit with financial institutions and accounts receivable. The Company's cash as of September 30, 2024 and December 31, 2023 is maintained at high-quality financial institutions and has not incurred any losses to date.

Customer and Supplier Concentration

For the nine months ended September 30, 2024, three customers represented 36%, 17%, and 11% of the Company's revenues, and for nine months ended September 30, 2023, three customers represented 27%, 23%, and 11% of the Company's revenues.

At September 30, 2024, four customers represented 47%, 12%, 11% and 11% of the Company's accounts receivable, and at September 30, 2023, three customers represented 33%, 24% and 11% of the Company's accounts receivable

For the nine months ended September 30, 2024, 85% of the Company's purchases related to two suppliers. For the nine months ended September 30, 2023, 90% of the Company's purchases related to three suppliers. At September 30, 2024 and 2023, 72% and 77% of the Company's accounts payable and accrued expenses related to two vendors, respectively. The Company believes there are numerous other suppliers that could be substituted should a supplier become unavailable or non-competitive.

Contingencies

Certain conditions may exist which may result in a loss to the Company, but which will only be resolved when one or more future events occur or fail to occur. The Company's management and its legal counsel assess such contingent liabilities, and such assessment inherently involves an exercise of judgment. In assessing loss contingencies related to legal proceedings that are pending against the Company, or unasserted claims that may result in such proceedings, the Company's legal counsel evaluates the perceived merits of any legal proceedings or unasserted claims as well as the perceived merits of the amount of relief sought or expected to be sought therein.

If the assessment of a contingency indicates that it is probable that a material loss has been incurred and the amount of the liability can be estimated, the estimated liability would be accrued in the Company's condensed consolidated financial statements. If the assessment indicates that a potentially material loss contingency is not probable but is reasonably possible, or is probable but cannot be estimated, the nature of the contingent liability, together with an estimate of the range of possible loss if determinable and material, would be disclosed.

Loss contingencies considered remote are generally not disclosed unless they arise from guarantees, in which case the guarantees would be disclosed.

Recently Issued Accounting Standards

Issued in June 2021, FASB Accounting Standards Update (ASU) No. 2016-13, *Measurement of Credit Losses on Financial Instruments* adds to U.S. GAAP an impairment model known as the current expected credit loss (CECL) model, which is based on expected losses rather than incurred losses. This guidance is effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years. Early application of the amendments is permitted. Effective January 1, 2023, the Company adopted ASU No. 2016-13. The adoption of ASU No. 2016-13 did not have a material effect on the accompanying unaudited condensed consolidated financial statements.

In November 2023, the FASB issued ASU No. 2023-07, *Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures*, which amends and enhances the disclosure requirements for reportable segments. All disclosure requirements under this standard will also be required for public entities with a single reportable segment. The new standard will be effective for the Company for fiscal years beginning after December 15, 2023, including interim periods within fiscal years beginning after December 15, 2024. The Company does not expect the standard will have a material impact on the Company's consolidated financial statements and related disclosures.

Note 4 - Inventory

Inventory was comprised of the following at September 30, 2024 and December 31, 2023:

	September 30, 2024	December 31, 2023
Raw Materials	\$ 373,516	\$ 200,496
Spare Parts	17,912	17,912
Finished Goods	494,984	576,756
	<u>\$ 886,412</u>	<u>\$ 795,164</u>

Note 5 - Property and Equipment, Net

Property and equipment at September 30, 2024 and December 31, 2023 are as follows:

	September 30, 2024	December 31, 2023
Equipment & installation	\$ 1,096,979	\$ 1,095,139
Leasehold improvements	113,301	101,821
Trucking equipment	911,377	845,102
Lab equipment	622,429	-
Office equipment, computer equipment and software	1,874	1,874
Total equipment	2,745,960	2,043,936
Less: accumulated depreciation	(2,044,137)	(2,035,978)
Construction in process	1,588,000	1,588,000
Property and equipment, net	<u>\$ 2,289,823</u>	<u>\$ 1,595,958</u>

The Company uses the straight-line method of depreciation over estimated useful lives of 2 to 5 years. During the three months ended September 30, 2024 and 2023 depreciation expense was \$6,581 and \$10,369, respectively. During the nine months ended September 30, 2024 and 2023 depreciation expense was \$8,159 and \$11,454, respectively. At September 30, 2024, lab equipment included deposits for \$127,770 of lab equipment not yet placed in service.

Note 6 - Intellectual Property

On January 15, 2009, the Company entered into an “Exclusive Patent and Know-How License Agreement Including Transfer of Ownership” with the Energy and Environmental Research Center Foundation, a non-profit entity. Under the terms of the Agreement, the Company has been granted an exclusive license by the Energy and Environmental Research Center Foundation for the technology to develop, make, have made, use, sell, offer to sell, lease, and import the technology in any coal-fired combustion systems (power plant) worldwide and to develop and perform the technology in any coal-fired power plant in the world.

On April 24, 2017, the Company closed on the acquisition of all patent rights from the Energy and Environmental Research Center Foundation including all patents and patents pending, domestic and foreign, relating to the foregoing technology. A total of 42 domestic and foreign patents and patent applications were included in the acquisition. In accordance with the terms of the License Agreement, the patent rights were acquired for the purchase price of (i) \$2,500,000 in cash, and (ii) 925,000 shares of common stock of which 628,998 shares were issued to the Energy and Environmental Research Center Foundation and 296,002 were issued to the inventors who had been designated by the Energy and Environmental Research Center Foundation. The shares issued were valued at \$518,000 (\$0.56 per share), representing the value as of the closing date.

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License and patent costs capitalized as of September 30, 2024 and December 31, 2023 are as follows:

	September 30, 2024	December 31, 2023
Licenses and patents	\$ 3,068,995	\$ 3,068,995
Less: Accumulated amortization	(1,518,382)	(1,364,932)
Intellectual property, net	<u>\$ 1,550,613</u>	<u>\$ 1,704,063</u>

Amortization expense for the three months ended September 30, 2024 and 2023 was \$1,150 and \$51,150, respectively. Amortization expense for the nine months ended September 30, 2024 and 2023 was \$153,450 and \$153,450, respectively.

Estimated annual amortization for each of the next 9 years is as follows:

Annual amortization for the years ended:

December 31, 2024 (remaining)	\$ 51,150
December 31, 2025	204,600
December 31, 2026	204,600
December 31, 2027	204,600
December 31, 2028	204,600
Thereafter	681,063
Total	<u>\$ 1,550,613</u>

Note 7 - Related Party

Secured Note Payable

On November 29, 2016, pursuant to a restated financing agreement entered with AC Midwest Energy, LLC (“AC Midwest”) on November 1, 2016, the Company closed on a secured note with AC Midwest (the “AC Midwest Secured Note”), which was to mature on December 15, 2018. AC Midwest is wholly-owned by a stockholder of the Company. The AC Midwest Secured Note is guaranteed by MES, is non-convertible and bears interest at a rate of 15.0% per annum, payable quarterly in arrears on or before the last day of each fiscal quarter. On February 25, 2019, per Amendment No. 3 to the Amended and Restated Financing Agreement, AC Midwest extended the maturity date from December 15, 2018 to August 25, 2022.

On October 28, 2022, the Company, along with MES, and AC Midwest, executed Amendment No. 4 to the Amended and Restated Financing Agreement pursuant to which the maturity date of the AC Midwest Secured Note was extended to August 25, 2025. In addition, the interest rate on the remaining principal balance was reduced from 15.0% to 9.0% per annum. The Company has accounted for the extension as debt extinguishment with a related party. As such the Company recorded a capital contribution of \$4,983 for the year ended December 31, 2022 on this exchange which is related to the difference in fair value of the note on the date of the exchange.

On February 27, 2024, the Company paid AC Midwest \$275,625 representing the remaining principal balance under the AC Midwest Secured Note of \$271,686 plus interest of \$3,939. As a result of the repayment of the remaining principal balance under the AC Midwest Secured Debt, the Company and AC Midwest executed a Satisfaction and Discharge of Secured Debt confirming the cancellation of the AC Midwest Secured Note.

As of September 30, 2024 and December 31, 2023, total principal of \$0 and \$271,686, respectively, was outstanding on this note. Interest expense for the three months ended September 30, 2024 and 2023 was \$Nil and \$10,775, respectively. Interest expense for the nine months ended September 30, 2024 and 2023 was \$4,279 and \$32,876, respectively.

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Amortized discount recorded as interest expense for the three months ended September 30, 2024 and 2023 was \$Nil and \$,916, respectively. Amortized discount recorded as interest expense for the nine months ended September 30, 2024 and 2023 was \$32,220 and \$14,587, respectively. As of September 30, 2024 and December 31, 2023, the unamortized balance of the discount was \$Nil and \$32,220, respectively, which was being expensed over the life of the loan.

Unsecured Note Payable

The Company has the following unsecured note payable - related party outstanding as of September 30, 2024 and December 31, 2023:

	September 30, 2024	December 31, 2023
Unsecured note payable	\$ 13,154,931	\$ 13,154,931
Repayments	(12,314,895)	-
Less fair value adjustment on extinguishment, net of amortized discount of \$1,965,984 and \$1,547,536, respectively	(960,000)	(2,175,208)
Plus fair value adjustment	<u>119,964</u>	<u>-</u>
Total unsecured note payable	-	10,979,723
Less current portion	<u>-</u>	<u>-</u>
Unsecured note payable, net of current portion	<u>\$ -</u>	<u>\$ 10,979,723</u>

On November 29, 2016, pursuant to a restated financing agreement entered with AC Midwest on November 1, 2016, the Company closed on an unsecured note with AC Midwest (the "AC Midwest Subordinated Note"), which was to mature on December 15, 2020. On February 25, 2019, the Company, entered into an Unsecured Note Financing Agreement (the "Unsecured Note Financing Agreement") with AC Midwest, pursuant to which AC Midwest issued an unsecured note in the principal amount of \$ 13,154,931 (the "AC Midwest Unsecured Note"), which represented the outstanding principal and accrued and unpaid interest at closing. The AC Midwest Unsecured, which replaced the AC Midwest Subordinated Note, was scheduled to mature on August 25, 2022 and bear a zero cash interest rate.

The Company determined that the rate of interest on the AC Midwest Subordinated Note was a below market rate of interest and determined that a discount of \$,916,687 should be recorded. This discount was based on an applicable market rate for unsecured debt for the Company of 21% and is being amortized as interest expense over the life of the loan.

On August 30, 2022, AC Midwest agreed to an extension of the maturity date of the AC Midwest Unsecured Note (and AC Midwest Secured Note) from August 25, 2022 to September 30, 2022. Such extension was expected to provide the Company sufficient time in which to conclude the process of negotiating certain changes and modifications to such financing arrangements. On September 28, 2022, AC Midwest agreed to an additional short-term extension of such maturity date from September 30, 2022 to October 31, 2022. The Company has accounted for the extension as debt extinguishment with a related party. As such the Company recorded a capital contribution of \$ 488,274 on this exchange which is related to the difference in fair value of the note on the date of the exchange.

On October 28, 2022, the Company, along with MES, and AC Midwest, executed Amendment No. 1 to Unsecured Note Financing Agreement pursuant to which the maturity date of the AC Midwest Unsecured Note was extended to August 25, 2025. In addition, the parties agreed that the Profit Share (see "Profit Share" below) be increased by \$4,500,000 from \$13,154,931 (representing 1.0 times the original principal amount) to \$17,654,931. The Company has accounted for the extension as debt extinguishment with a related party. As such the Company recorded a capital contribution of \$ 3,234,469 on this exchange which is related to the difference in fair value of the note on the date of the exchange.

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On February 27, 2024, the Company entered into an Unsecured Debt Restructuring Agreement (the “Debt Restructuring Agreement”) with AC Midwest which replaces and supersedes the Unsecured Note Financing Agreement. Pursuant to the Debt Restructuring Agreement, on February 27, 2024, the Company (i) paid AC Midwest \$ 9,040,000 as a reduction in the outstanding principal balance of the AC Midwest Unsecured Note, and (ii) issued to AC Midwest a new unsecured replacement note representing the remaining outstanding principal balance of the Unsecured Note in the principal amount of \$4,114,931 (the “New Note”). In addition, within 30 days, the Company would either facilitate the private sale to third parties of certain shares of common stock of the Company held by AC Midwest for a purchase price of no less than \$960,000, which amount shall be applied as a credit against the principal balance due on the New Note dollar for dollar, or pay AC Midwest \$960,000 toward the principal balance due on the New Note. The private sale of shares for the purchase price of \$960,000 was completed on March 11, 2024. Any remaining principal balance on the New Note shall be due August 27, 2024 (the “New Note Maturity Date”), which is six months from February 27, 2024. Until repaid in full, the New Note shall accrue interest at a rate equal to SOFR plus 2.0% per annum. The New Note completely replaced and superseded the AC Midwest Unsecured Note, which shall be of no further force and effect.

On August 26 and 27, 2024, the Company repaid AC Midwest the remaining principal of \$3,154,931 on the New Note together with accrued interest of \$119,964. As a result, the only remaining debt obligation under the Debt Restructuring Agreement is the profit participation as described below.

The Company has accounted for the February 27, 2024 modification as debt extinguishment with a related party. As such the Company recorded a capital charge of \$1,005,984 on this exchange which is related to the difference in fair value of the New Note on the date of the exchange. The New Note represented a hybrid instrument and the Company elected to apply fair value option accounting to the New Note. Cash flows of the hybrid instrument in its entirety are discounted at an appropriate rate for the applicable duration of the instrument. Interest on the interest-bearing portion of the instrument that is held to maturity is aggregated as loss on change in fair value of profit share and unsecured note in the consolidated statements of operations.

Amortized discount recorded as interest expense for the three months ended September 30, 2024 and 2023 was \$Nil and \$31,872, respectively. Amortized discount recorded as interest expense for the nine months ended September 30, 2024 and 2023 was \$209,224 and \$984,795, respectively. As of September 30, 2024 and December 31, 2023, the unamortized balance of the discount was \$Nil and \$2,175,208, respectively, which is being expensed over the life of the loan.

Profit Share

Pursuant to the Unsecured Note Financing Agreement, AC Midwest was also entitled to a “non-recourse” profit participation preference equal to 1.0 times the original principal amount of the AC Midwest Unsecured Note which on October 28, 2022 was increased to \$17,654,931 (the “Profit Share”). Prior to maturity, the outstanding principal, as well as the Profit Share, were to be paid from Net Litigation Proceeds from claims relating to the Company’s intellectual property, Net Revenue Share, Adjusted Free Cash Flow and Equity Offering Net Proceeds (as such terms are defined in the Unsecured Note Financing Agreement). Any remaining principal balance due on the Unsecured Note would be due and payable in full on the maturity date. The Profit Share, however, if not paid in full on or before the maturity date would remain subject to the Unsecured Note Financing Agreement until full and final payment.

Pursuant to the Debt Restructuring Agreement, AC Midwest was granted a profit participation preference equal to \$7,900,000 (the “Restructured Profit Share”) which replaces and supersedes the terms and conditions of the Profit Share in the amount of \$17,654,931 provided for in the Unsecured Note Financing Agreement, which shall be of no further force and effect. The Restructured Profit Share is “non-recourse” and shall only be paid from Net Litigation Proceeds (as defined in the Debt Restructuring Agreement) from claims relating to the Company’s intellectual property. Following the receipt of any Net Litigation Proceeds, the Company shall prepay any remaining principal balance of the New Note and pay the Restructured Profit Share in an amount equal to 75.0% of such Net Litigation Proceeds until the New Note and Restructured Profit Share have been paid in full. The Restructured Profit Share, if not paid in full on or before the New Note Maturity Date, shall remain subject to the terms of the Debt Restructuring Agreement.

In addition to facilitating the private sale to third parties as described above, AC Midwest has granted the Company the exclusive right until December 31, 2024 to facilitate the sale of all or a portion of the remaining balance of the shares of common stock of the Company held by AC Midwest, which proceeds above a certain amount will be applied as a credit against the Restructured Profit Share dollar for dollar (the “Facilitation Credit”).

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The Company has accounted for the February 27, 2024 modification as debt extinguishment with a related party. As such the Company recorded a capital contribution of \$11,833,179 on this exchange which is related to the difference in fair value of the Restructured Profit Share on the date of the exchange.

The Company is utilizing the methodology behind the ASC 815, *Derivatives and Hedging* and ASC 480, *Distinguishing Liabilities from Equity* to determine how to account for the profit-sharing portion of the note payable. Although the transaction is not indexed to MEEC's common stock the profit sharing has the characteristics of a freestanding financial instrument because the profit sharing is not callable by the lender, it will be paid out past the maturity of the Unsecured Note Payable and, the fair value will fluctuate over time based on payment predictions. The Profit Share was determined to have a fair value of \$3,389,043 upon grant. The discounted cash flow model assumptions used at September 30, 2024 to calculate the Profit Share liability included: the projected full repayment of the profit share liability of \$7,900,000 upon the receipt of Net Litigation Proceeds in 2025, and an annual market interest rate of 14.55%. In addition, the value of the Facilitation Credit was calculated utilizing a 20% discount to the market price of the Company's common stock. The discounted cash flow model assumptions used at December 31, 2023 to calculate the Profit Share liability included: the projected full repayment of the profit share liability of \$17,654,931 upon the receipt of Net Litigation Proceeds in 2025, and an annual market interest rate of 14.55%. The profit share liability will be marked to market every quarter utilizing management's estimates.

The following are the changes in the profit share liability (the only Level 3 financial instrument) during the nine months ended September 30, 2024 and the year ended December 31, 2023:

Profit Share as of January 1, 2023	\$ 3,638,260
Addition	-
Loss on change in fair value of profit share	11,209,677
Profit Share as of December 31, 2023	<u>\$ 14,847,937</u>
Profit Share as of January 1, 2024	\$ 14,847,937
Modification	(11,833,179)
Loss on change in fair value of profit share	2,552,288
Profit Share as of September 30, 2024	<u>\$ 5,567,046</u>

Related Party Transactions

Kaye Cooper Kay & Rosenberg, LLP provides certain legal services to the Company and the Company incurred \$16,667 and \$100,467 for the three months ended September 30, 2024 and 2023, respectively, and was paid \$318,944 and \$292,219 for the nine months ended September 30, 2024 and 2023, respectively, for legal services rendered and disbursement incurred. David M. Kaye, a Director of the Company, is a partner of the law firm. At September 30, 2024 and December 31, 2023, \$37,500 and \$33,333, respectively, was owed to the firm for services rendered.

On January 31, 2023, the Company entered into a License and Supply Agreement with Dakin Holdings Ltd., a company incorporated in Barbados ("Dakin"), effective as of January 1, 2023, pursuant to which Dakin has granted to the Company (i) a limited license to manufacture and produce for Dakin products comprising certain intellectual property owned by Dakin (the "Dakin IP"), and (ii) an exclusive license to commercialize the Dakin IP in the United States. In addition, the Company shall pay Dakin a license fee of \$12,500 per month for a three-year period commencing as of the effective date and pay Dakin a royalty on all sales in the United States of the products comprising the Dakin IP made by the Company. Dakin is a company owned and controlled by the Company's Chief Executive Officer and President. For the three months ended September 30, 2024 and 2023, Dakin incurred \$37,500 and \$37,500 license fees. For the nine months ended September 30, 2024 and 2023, Dakin incurred \$112,500 and \$112,500 license fees. At September 30, 2024 and December 31, 2023, \$37,500 and \$25,000, respectively, was owed to Dakin for license fees.

On May 28, 2024, the Company entered into an Administrative Services Agreement with Greenberg Enterprises, LLC ("Greenberg Enterprises"), pursuant to which Greenberg Enterprises will be paid for certain administrative support provided to the Company since January 1, 2024 and administrative support to be provided in the future to the Company including but not limited to general office and technical support, project management and support, and vendor relations support. During the three months and nine months ended September 30, 2024, Greenberg Enterprises provided \$115,300 and \$204,420 respectively, for administrative services and \$276,500 and \$322,100 respectively, for expense reimbursement. Greenberg Enterprises is a company owned and controlled by Christopher Greenberg, Chairman of the Board of the Company. At September 30, 2024 and December 31, 2023, \$104,600 and \$50,000, respectively, was owed to Christopher Greenberg.

Note 8 - Operating Leases

On July 1, 2015, the Company entered into a five-year lease for warehouse space in Corsicana, Texas. The Company is also responsible for the pro rata share of the projected monthly expenses for the property taxes. The current pro rata share is \$882. On June 1, 2019, the lease was extended to March 31, 2024, and on March 28, 2024, the lease was further extended for an additional five years from March 31, 2024 to March 31, 2029. Rent is \$3,750 monthly until March 31, 2026 and then \$3,866 per month until March 31, 2029. The Company recorded a right of use asset and an operating lease liability of \$61,728. This amount represents the difference between the value from the remaining lease and the extended lease.

On August 1, 2024, the Company entered into a 3-year lease for laboratory space in Grand Forks, North Dakota. The lease contains an option to extend for a further three years that the Company is reasonably certain to exercise. As a result, the additional three year extension is included as part of the least term. Rent is \$1,400 monthly until July 31, 2027, and then effectively \$1,540 per month until July 31, 2030. Upon commencement of the lease the Company recorded a right of use asset and an operating lease liability of \$69,615.

For the nine months ended September 30, 2024 and the year ended December 31, 2023, the Company recorded an operating lease right of use asset and liabilities as follows:

	<u>September 30,</u> <u>2024</u>	<u>December 31,</u> <u>2023</u>
Right of use asset - operating lease	\$ 218,602	\$ 10,639
Current portion of operating lease liability	31,990	11,157
Operating lease liability	187,170	-

Future remaining minimum lease payments under these non-cancelable leases are as follows:

For the twelve months ended September 30,

2025	\$ 61,800
2026	62,496
2027	63,472
2028	64,872
2029	41,676
Thereafter	15,400
Total	<u>309,716</u>
Less discount	<u>(90,557)</u>
Total lease liabilities	219,159
Less current portion	<u>(31,990)</u>
Operating lease obligation, net of current portion	<u>\$ 187,169</u>

The weighted average remaining lease term for operating leases is 5 years and the weighted average discount rate used in calculating the operating lease asset and liability is 14.55%. For the nine months ended September 30, 2024 and 2023, payments on lease obligations were \$6,550 and \$33,750, respectively, and amortization on the right of use assets was \$23,380 and \$30,423, respectively.

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For the nine months ended September 30, 2024 and 2023, the Company's lease cost consists of the following components, each of which is included in costs and expenses within the Company's unaudited condensed consolidated statements of operations:

	For the Nine Months Ended September 30, 2024	For the Nine Months Ended September 30, 2023
Operating lease costs	<u>\$ 36,750</u>	<u>\$ 32,678</u>

Note 9 - Commitments and Contingencies

Fixed Price Contract

The Company's multi-year contracts with its commercial customers contain fixed prices for product. These contracts expire between 2023 and 2025 and expose the Company to the potential risks associated with rising material costs during that same period.

Legal proceedings

On July 17, 2019, the Company initiated patent litigation against certain defendants in the U.S. District Court for the District of Delaware for infringement of certain United States patents owned by the Company. These patents relate to the Company's two-part Sorbent Enhancement Additive (SEA[®]) process for mercury removal from coal-fired power plants. Named as defendants in the lawsuit were (i) Vistra Energy Corp., AEP Generation Resources Inc., NRG Energy, Inc., Talen Energy Corporation, and certain of their respective affiliated entities, all of which are owners and/or operators of coal-fired power plants in the United States, and (ii) Arthur J. Gallagher & Co., DTE REF Holdings, LLC, CERT Coal Holdings LLC, Chem-Mod LLC, and certain of their respective affiliated entities, and additional named and unnamed defendants, all of which operate or are involved in operations of coal facilities in the United States. In the lawsuit, the Company alleges that each of the defendants has willfully infringed certain of the Company's patents and seeks unspecified damages, attorneys' fees, costs and injunctive relief.

During 2020, each of the four major utility defendants in the above action filed petitions for Inter Partes Review with the United States Patent and Trademark Office, seeking to invalidate certain claims to the patents which are subject to the litigation.

Between July 2020 and January 2021, we entered into agreements with each of the four major utility defendants in such action which included certain monetary arrangements and pursuant to which we have dismissed all claims brought against each of them and their affiliates, and such parties have withdrawn from petitions for Inter Partes Review with the United States Patent and Trademark Office. Such agreements entered into with such parties provide each of them and their affiliates with a non-exclusive license to certain Company patents (related to the Company's two-part Sorbent Enhancement Additive (SEA[®]) process) for use in connection with such parties' coal-fired power plants.

Subsequently, and as a result of certain rulings by the Court, certain defendants were dismissed in the action, certain defendants were added and certain originally named defendants remained in the action. A jury trial was scheduled for November 13, 2023.

On November 9, 2023, the Company entered into a confidential binding term sheet with Arthur J. Gallagher & Co., and various of its affiliated entities (collectively "AJG"), and DTE Energy Resources LLC and various of its affiliated entities (collectively "DTE"), to resolve the patent litigation. Pursuant to the term sheet, all claims and counterclaims asserted by the parties in such patent litigation have been dismissed with prejudice, although such term sheet does not affect any other claim brought against the remaining CERT defendants. The financial aspects of the term sheet remain confidential pursuant to its terms.

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In addition, effective November 9, 2023, Alistar Enterprises, LLC (“Alistar”), one of the remaining CERT defendants, entered into a settlement agreement with the Company which provided that all claims and counterclaims asserted in the action between the Company and Alistar be dismissed with prejudice. The financial terms of such settlement remain confidential.

Effective as of December 28, 2023, and in connection with the term sheet described above, the Company, along with its wholly-owned subsidiary, MES, Inc., and (a) Chem-Mod LLC (“Chem-Mod”), (b) Arthur J. Gallagher & Co. and AJG Coal, LLC, and (c) DTE Energy Co. and DTE Energy Resources, LLC, entered into a paid license of U.S. Patent No. 8,168,147, U.S. Patent No. 10,343,114, U.S. Patent No. 10,589,225, U.S. Patent No. 10,596,517 and U.S. Patent No. 10,668,430 and their foreign equivalents and related patent applications and patents, which licenses the use of refined coal or the Chem-Mod Solution in conjunction with activated carbon. This license applies to Chem-Mod and certain of its licensees, sub-licensees, and their customers, for the remaining term of such patents. By its terms, the license does not cover the use of activated carbon with coal that is not either refined coal or coal made by or for use with the Chem-Mod Solution in a manner authorized by the license. The parties to the license have mutually released all claims that any past use of the Chem-Mod Solution in connection with the production or use of refined coal with activated carbon by entities other than the CERT defendants and their customers infringes the asserted patents and related intellectual property, and all claims that could have been brought challenging the validity of such patents.

The remaining CERT defendants and their customers (for activities relating to the CERT defendants) are not included within the scope of the license. The Court rescheduled the trial as to the claims against the remaining CERT defendants to begin on February 26, 2024.

Following a five-day trial, on March 1, 2024, a federal jury in the U.S. District Court for the District of Delaware awarded a \$7.1 million patent infringement verdict in favor of the Company against the remaining group of CERT defendants. Such group of affiliated defendants included multiple limited liability companies with refined coal industry operations, including CERT Operations II LLC, CERT Operations IV LLC, CERT Operations V LLC, and CERT Operations RCB LLC. The jury determined that these defendants infringed our patented technologies for mercury emissions and were liable for willful infringement, along with inducing and contributory infringement. Post-trial motions and applications are currently ongoing.

In July 2024, the Company commenced three patent infringement lawsuits against multiple defendants, including coal-fired power utilities, in three separate U.S. District Courts in Arizona, Iowa and Missouri. Such lawsuits claim infringement of the Company’s patent rights related to the Company’s mercury emissions reduction technologies. Named as defendants in the action filed in the U.S. District Court for the District of Arizona are Tucson Electric Power Co., San Carlos Resources, Inc., Salt River Project Agricultural Improvement and Power District, Tri-State Generation and Transmission Association, Inc., Springerville Unit 3 Holding LLC, and Springerville Unit 3 Partnership LP. Named as defendants in the action filed in the U.S. District Court for the Southern District of Iowa are Berkshire Hathaway Energy Company, MidAmerican Energy Company, PacifiCorp, Alliant Energy Corporation, Interstate Power and Light Company, and Wisconsin Power and Light Company, and named as defendants in the action filed in the U.S. District Court for the Eastern District of Missouri are Ameren Corp. and Union Electric Co. In each lawsuit, the Company requests a trial by jury against the defendants and seeks damages, costs, and legal expenses, along with a finding of willful infringement by the defendants, and an injunction prohibiting the defendants from further acts of infringement. See “Note 12 – Subsequent Events” for information on an agreement entered into with one of the utilities and an affiliated entity named as defendants in the patent infringement lawsuit commenced by the Company in the Arizona Action.

Except for the foregoing disclosures, the Company is not presently aware of any other material pending legal proceedings to which the Company is a party or of which any of its property is the subject.

Litigation, including patent litigation, is inherently subject to uncertainties. As such, there can be no assurance that the Company will be successful in litigating and/or settling any of these claims.

Note 10 - Stock Based Compensation

Stock Based Compensation

The Company accounts for stock-based compensation awards in accordance with the provisions of ASC 718, which addresses the accounting for employee stock options which requires that the cost of all employee stock options, as well as other equity-based compensation arrangements, be reflected in the unaudited condensed consolidated financial statements over the vesting period based on the estimated fair value of the awards.

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Stock based compensation consists of the amortization of common stock, stock options, restricted share units and warrants issued to employees, directors and consultants. For the three months ended September 30, 2024 and 2023, stock-based compensation expense amounted to \$133,361 and \$102,465, respectively. For the nine months ended September 30, 2024 and 2023, stock-based compensation expense amounted to \$1,040,625 and \$390,089, respectively. Such expense is classified in selling, general and administrative expenses.

Common Stock

On November 8, 2022, the Company issued a total of 3,000,000 shares of common stock to the Chief Executive Officer. These shares of common stock were valued at \$960,000 in accordance with FASB ASC Topic 718. The fair value of the shares will be amortized as an expense over the vesting period. The shares become fully vested on November 8, 2024. The expense for the nine months ended September 30, 2024 and 2023 was \$364,000 and \$364,000, respectively.

Stock Options

References herein to the “2014 Plan” mean the Company’s 2014 Equity Incentive Plan, as amended, and references herein to the “2017 Plan” mean the Company’s 2017 Equity Incentive Plan, as amended.

On February 1, 2023, the Company issued (i) 850,000 shares of common stock to the Company’s Chairman of the Board upon a cash exercise of options to purchase an aggregate of 850,000 shares of common stock at exercise prices ranging from \$0.19 to \$0.27 per share or \$209,500 in the aggregate, (ii) 110,000 shares of common stock to the Company’s Chief Executive Officer upon a cashless exercise of an option to purchase 250,000 shares of common stock at an exercise price of \$0.28 per share based upon a market price of \$0.50 per share as determined under the terms of the option, and (iii) 155,000 shares of common stock to a director of the Company upon a cashless exercise of an option to purchase 250,000 shares of common stock at an exercise price of \$0.19 per share based upon a market price of \$0.50 per share as determined under the terms of the option.

On February 20, 2023, the Company issued 17,858 shares of common stock to the Company’s Senior Vice President and Chief Technology Officer upon a cashless exercise of an option to purchase 50,000 shares of common stock at an exercise price of \$0.27 per share based upon a market price of \$0.42 per share as determined under the terms of the option.

Between February 21, 2023 and February 23, 2023, the Company issued an aggregate of 29,022 shares of common stock to three employees and one former employee upon a cashless exercise of options to purchase an aggregate of 80,000 shares of common stock at an exercise price of \$0.27 per share based upon market prices ranging from \$0.42 to \$0.43 per share as determined under the terms of the options.

On March 8, 2023, and pursuant to an advisor agreement dated March 1, 2023 with a nonaffiliated third party, the Company granted a nonqualified stock option under the 2017 Equity Incentive Plan to such third party to acquire 125,000 shares of the Company’s common stock at an exercise price of \$0.40 per share, representing the fair market value of the common stock on the date of grant as determined under the 2017 Equity Incentive Plan. Fifty percent of the option shall vest and become exercisable on September 1, 2023 and the remaining fifty percent shall vest and become exercisable on March 1, 2024. The option will expire five years after the date of grant. Based on a Black-Scholes valuation model, these options were valued at \$30,933, in accordance with FASB ASC Topic 718. The fair value of the shares was being amortized to selling, general and administrative expenses within the Company’s consolidated statements of operations over twelve months. The valuation assumptions included an expected duration of 2.9 years, volatility of 98%, discount rate of 4.71% and dividends of \$0. On September 30, 2023, the advisor agreement was terminated resulting in 50.0% of the option remaining unvested and unexercisable.

On April 4, 2023, and pursuant to a consulting agreement effective April 1, 2023 with a nonaffiliated third party, the Company granted a nonqualified stock option under the 2017 Plan to such third party to acquire 250,000 shares of the Company’s common stock at an exercise price of \$0.39 per share, representing the fair market value of the common stock on the date of grant as determined under the 2017 Plan. Fifty percent of the option shall vest and become exercisable on October 1, 2023 and the remaining fifty percent shall vest and become exercisable on April 1, 2024. The option will expire five years after the date of grant. Based on a Black-Scholes valuation model, these options were valued at \$59,690, in accordance with FASB ASC Topic 718. The fair value of the shares was being amortized to selling, general and administrative expenses within the Company’s consolidated statements of operations over twelve months. The valuation assumptions included an expected duration of 2.9 years, volatility of 98%, discount rate of 3.60% and dividends of \$0. On August 28, 2023, the consulting agreement was terminated resulting in the option remaining unvested and being deemed terminated.

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On May 26, 2023, a new director was appointed to the Board of Directors and was granted a nonqualified stock option to acquire 25,000 shares of the Company's common stock exercisable at \$0.41 per share. Fifty percent of the option shall vest and become exercisable on November 26, 2023 and the remaining fifty percent shall vest and become exercisable on May 26, 2024. The option will expire five years after the date of grant. Based on a Black-Scholes valuation model, these options were valued at \$30,527, in accordance with FASB ASC Topic 718. The fair value of the shares is being amortized to selling, general and administrative expenses within the Company's consolidated statements of operations over twelve months. During the nine months ended September 30, 2024, the Company recognized \$12,211 of stock-based compensation. The valuation assumptions included an expected duration of 2.88 years, volatility of 97%, discount rate of 4.23% and dividends of \$0.

On June 5, 2023, the Company issued 1,629 shares of common stock to the Company's Senior Vice President and Chief Technology Officer upon a cashless exercise of an option to purchase 6,875 shares of common stock at an exercise price of \$0.29 per share based upon a market price of \$0.38 per share as determined under the terms of the options.

On June 6, 2023, the Company issued an aggregate of 3,426 shares of common stock to an employee upon a cashless exercise of options to purchase an aggregate of 7,655 shares of common stock at exercise prices ranging from \$0.17 to \$0.29 per share based upon a market price of \$0.38 per share as determined under the terms of the options.

On June 7, 2023, the Company issued 1,352 shares of common stock to a director upon a cashless exercise of an option to purchase 6,250 shares of common stock at an exercise price of \$0.29 per share based upon a market price of \$0.37 per share as determined under the terms of the options.

On June 28, 2023, the Company issued (i) 5,213 shares of common stock to the Company's Chief Executive Officer upon a cashless exercise of options to purchase an aggregate of 24,687 shares of common stock at exercise prices ranging from \$0.21 to \$0.29 per share based upon a market price of \$0.30 per share as determined under the terms of the options, (ii) 4,125 shares of common stock to the Company's Senior Vice President and Chief Technology Officer upon a cashless exercise of an option to purchase 13,750 shares of common stock at an exercise price of \$0.21 per share based upon a market price of \$0.30 per share as determined under the terms of the option, and (iii) 1,875 shares of common stock to a director upon a cashless exercise of an option to purchase 6,250 shares of common stock at an exercise price of \$0.21 per share based upon a market price of \$0.30 per share as determined under the terms of the options.

On July 3, 2023, the Board of Directors of the Company approved and adopted the Company's Amended and Restated 2014 Equity Incentive Plan and the Company's Amended and Restated 2017 Equity Incentive Plan which amended the Company's previously adopted 2014 Plan and 2017 Plans. Such amendments were made in accordance with the requirements of the TSX Venture Exchange. The 2014 Plan was first approved by the Board on January 10, 2014. The 2017 Plan replaced the 2014 Plan, which was terminated by the Board on April 28, 2017. As a result of such termination, no additional awards may be granted under the 2014 Plan but previously granted awards shall remain outstanding in accordance with their terms and conditions. There are 4,775,000 options and no other types of award outstanding under the 2014 Plan. The 2017 Plan was adopted by the Board on February 9, 2017. As amended by the Board on July 3, 2023, the maximum number of shares of common stock that may be issued under the 2017 Plan after July 3, 2023 is 14,078,459, and to the extent any award (or portion thereof) outstanding under the 2014 Plan expires, terminates or is cancelled, surrendered or forfeited for any reason on or after July 3, 2023, the shares of common stock subject to such award (or portion thereof) shall be added to and increase the foregoing limit, to a maximum of 4,775,000 additional shares of common stock.

On July 28, 2023, the Company issued (i) 8,007 shares of common stock to the Company's Chief Executive Officer upon a cashless exercise of an option to purchase 16,458 shares of common stock, (ii) 6,690 shares of common stock to the Company's Senior Vice President and Chief Technology Officer upon a cashless exercise of an option to purchase 13,750 shares of common stock, and (iii) 3,041 shares of common stock to a director upon a cashless exercise of an option to purchase 6,250 shares of common stock. All of such options had an exercise price of \$0.17 per share and such share issuances were based upon a volume weighted average price ("VWAP") of \$0.3311 per share as determined under the terms of the options.

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On September 29, 2023, the Company issued (i) 5,555 shares of common stock to the Company's Chief Executive Officer upon a cashless exercise of an option to purchase 16,458 shares of common stock, (ii) 4,641 shares of common stock to the Company's Senior Vice President and Chief Technology Officer upon a cashless exercise of an option to purchase 13,750 shares of common stock, (iii) 2,109 shares of common stock to a director upon a cashless exercise of an option to purchase 6,250 shares of common stock, and (iv) 1,033 shares of common stock to an employee upon a cashless exercise of an option to purchase 3,062 shares of common stock. All of such options had an exercise price of \$0.26 per share and such share issuances were based upon a VWAP of \$0.3925 per share as determined under the terms of the options.

On October 30, 2023, the Company issued 1,450 shares of common stock to an employee upon a cashless exercise of an option to purchase 3,062 shares of common stock at any exercise price of \$0.20 per share based upon a VWAP of \$0.3799 per share as determined under the term of the options.

On October 31, 2023, the Company issued (i) 8,346 shares of common stock to the Company's Chief Executive Officer upon a cashless exercise of an option to purchase 16,458 shares of common stock, (ii) 6,973 shares of common stock to the Company's Senior Vice President and Chief Technology Officer upon a cashless exercise of an option to purchase 13,750 shares of common stock, and (iii) 3,169 shares of common stock to a director upon a cashless exercise of an option to purchase 6,250 shares of common stock. All of such options had an exercise price of \$0.20 per share and such share issuances were based upon a VWAP of \$0.4058 per share as determined under the terms of the options.

On November 29, 2023, the Company issued 2,001 shares of common stock to an employee upon a cashless exercise of an option to purchase 3,062 shares of common stock at an exercise price of \$0.33 per share based upon a VWAP of \$0.9527 per share as determined under the term of the options.

On November 30, 2023, the Company issued (i) 9,104 shares of common stock to the Company's Senior Vice President and Chief Technology Officer upon a cashless exercise of an option to purchase 13,750 shares of common stock at an exercise price of \$0.33 per share, (ii) 4,138 shares of common stock to a director upon a cashless exercise of an option to purchase 6,250 shares of common stock at an exercise price of \$0.33 per share, and (iii) 9,400 shares of common stock to a former employee upon a cashless exercise of options to purchase a total of 18,750 shares of common stock, with exercises prices of ranging from \$0.25 to \$0.33 per share. All of such share issuances were based upon a VWAP of \$0.9768 per share as determined under the terms of the options.

On December 11, 2023, the Company issued (i) 10,278 shares of common stock to the Company's Senior Vice President and Chief Technology Officer upon a cashless exercise of an option to purchase 13,750 shares of common stock, and (ii) 4,672 shares of common stock to a director upon a cashless exercise of an option to purchase 6,250 shares of common stock. All of such options had an exercise price of 0.25 per share and such share issuances were based upon a VWAP of \$0.9902 per share as determined under the terms of the options.

On December 13, 2023, the Company issued 2,204 shares of common stock to an employee upon a cashless exercise of an option to purchase 3,062 shares of common stock at an exercise price of \$0.25 per share based upon a VWAP of \$0.8931 per share as determined under the term of the options.

On January 15, 2024, the Company granted nonqualified stock options to certain directors, executive officers and employees to acquire an aggregate of 1,000,000 shares of the Company's common stock under the Company's 2017 Plan. The options granted are exercisable at \$ 0.88 per share, representing the fair market value of the common stock on the date of grant as determined under the 2017 Plan. The options are fully vested and exercisable as of the date of grant and will expire five years thereafter. Based on a Black-Scholes valuation model, these options were valued at \$632,214, in accordance with FASB ASC Topic 718, which was expensed on the issuance date in selling, general and administrative expenses within the Company's consolidated statements of operations. The valuation assumptions included an expected duration of 5 years, volatility of 93%, discount rate of 3.84% and dividends of \$0.

On February 27, 2024, the Company issued 9,285 shares of common stock to a former employee upon a cashless exercise of an option to purchase 18,750 shares of common stock covered by an option to purchase a total of 100,000 shares of common stock, with an exercise price of \$0.27 per share. Such share issuance was based upon a VWAP of \$0.9230 per share as determined under the terms of the option.

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On June 24, 2024, the Company issued (i) 886,456 shares of common stock to the Company’s Chief Executive Officer upon a cashless exercise of an option to purchase 1,500,000 shares of common stock at an exercise price of \$0.27 per share, and (ii) 672,867 shares of common stock to the Company’s Senior Vice President and Chief Technology Officer upon a cashless exercise of options to purchase an aggregate of 1,600,000 shares of common stock at exercise prices ranging from \$0.27 to \$0.45 per share. Such share issuances were based upon a VWAP of \$0.6601 per share as determined under the terms of the options.

On June 28, 2024, the Company issued (i) 46,409 shares of common stock to an employee upon a cashless exercise of options to purchase an aggregate of 300,000 shares of common stock at exercise prices ranging from \$0.27 to \$0.61 per share, (ii) 44,065 shares of common stock to an employee upon a cashless exercise of an option to purchase 75,000 shares of common stock covered by an option to purchase a total of 100,000 shares of common stock with an exercise price of \$0.27 per share, and (iii) 15,000 shares of common stock to a former employee upon a cashless exercise of an option to purchase 25,531 shares of common stock covered by an option to purchase a total of 500,000 shares of common stock with an exercise price of \$0.27 per share. Such share issuances were based upon a VWAP of \$0.6546 per share as determined under the terms of the options.

On August 3, 2024, the Company issued 32,112 shares of common stock to a former consultant upon a cashless exercise of an option to purchase 62,500 shares of common stock, with an exercise price of \$0.40 per share. Such share issuance was based upon a VWAP of \$0.8227 per share as determined under the terms of the option.

A summary of stock option activity is presented below:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (years)	Aggregate Intrinsic Value
December 31, 2023	17,037,500	\$ 0.53	1.47	6,970,750
Grants	1,000,000	0.88		
Expirations	(5,155,719)	0.64		
Exercised	(3,581,781)	0.35		
September 30, 2024	<u>9,300,000</u>	<u>\$ 0.58</u>	<u>2.00</u>	<u>2,030,800</u>
Options exercisable at:				
September 30, 2024	9,300,000	0.58	2.00	2,030,800

The aggregate intrinsic value in the table above represents the total intrinsic value, based on the Company’s closing stock price of \$0.75 as of September 30, 2024 (the last trading day of the month of September 2024), which would have been received by the option holders had all option holders exercised their options as of that date.

Stock options exercised during the nine months ended September 30, 2024 include none that were exercised for cash and 3,581,781 which were a cashless exercise.

Restricted Share Units

On January 15, 2024, the Company granted 50,000 restricted share units (“RSUs”) to a director pursuant to the 2017 Plan. The RSUs will vest one year from the date of grant on January 15, 2025. Once vested, each RSU represents the right to receive one share of the Company’s common stock. These shares of common stock were valued at \$3,500 in accordance with FASB ASC Topic 718. The fair value of the shares will be amortized as an expense over the vesting period. The shares become fully vested on January 15, 2025. The expense for the nine months ended September 30, 2024 and 2023 was \$30,867 and \$Nil, respectively.

Note 11 - Warrants

The Company utilized a Black-Scholes options pricing model to value warrants at the issuance date. This model requires the input of highly subjective assumptions such as the expected stock price volatility and the expected period until the warrants are exercised. When calculating the value of warrants issued, the Company uses a volatility factor, a risk-free interest rate and the life of the warrant for the exercise period.

No warrants were issued during the nine months ended September 30, 2024 and 2023. The following warrants were exercised during the nine months ended September 30, 2024 and 2023:

On June 17, 2024, the Company issued an aggregate of 16,665 shares of common stock to certain warrant holders upon the cashless exercise of warrants to purchase an aggregate of 600,000 shares of common stock at an exercise price of \$0.70 per share based upon a market value of \$0.72 per share as determined under the terms of the warrants.

On June 18, 2024, the Company issued 3,521 shares of common stock to a certain warrant holder upon the cashless exercise of a warrant to purchase 250,000 shares of common stock at an exercise price of \$0.70 per share based upon a market value of \$0.71 per share as determined under the terms of the warrant.

On August 5, 2024, the Company issued 66,666 shares of common stock to a certain warrant holder upon the cashless exercise of a warrant to purchase 400,000 shares of common stock at an exercise price of \$0.70 per share based upon a market value of \$0.84 per share as determined under the terms of the warrant.

On August 22, 2024, the Company issued 25,000 shares of common stock to a certain warrant holder upon a cash exercise of a warrant to purchase 25,000 shares of common stock at an exercise price of \$0.70 per share or \$17,500 in the aggregate.

The following is a summary of the Company's warrant activity:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (years)	Aggregate Intrinsic Value
December 31, 2023	2,550,000	\$ 0.70	0.60	\$ -
Grants	-	-	-	-
Expirations	(500,000)	0.70	-	-
Exercised	(1,275,000)	0.70	-	-
September 30, 2024	<u>775,000</u>	<u>\$ 0.70</u>	<u>0.06</u>	<u>\$ -</u>
Warrants exercisable at:				
September 30, 2024	775,000	\$ 0.70	0.06	\$ -

The following table summarizes information about common stock warrants outstanding at September 30, 2024:

Outstanding and Exercisable			
Exercise Price	Number Outstanding	Weighted Average Remaining Contractual Life (years)	Weighted Average Exercise Price
\$ 0.70	775,000	0.06	\$ 0.70

Note 12 - Subsequent Events

Effective as of October 8, 2024, the Company entered into agreement with one of the utilities and an affiliated entity named as defendants in the patent infringement lawsuit commenced by the Company in July 2024 in the U.S. District Court in Arizona (the "Arizona Action"). Such agreement provides such parties and their affiliates with a non-exclusive license to certain Company patents related to the Company's two-part Sorbent Enhancement Additive (SEA®) process for use in connection with a certain designated coal-fired power plant operated by such utility. The agreement includes a one-time license fee which has been received by the Company, and provides the Company with a right of first refusal for certain of such utility's product supply for mercury emissions capture at such designated power plant. Such lawsuit will continue against the other non-affiliated defendants named in the Arizona Action.

On October 9, 2024, the Company received conditional approval to list its shares of common stock on the Toronto Stock Exchange ("TSX") and graduate from the TSX Venture Exchange ("TSXV") to the TSX. The listing is subject to the Company's fulfilling certain requirements of the TSX in accordance with the terms of the conditional approval letter. On November 12, 2024, the Company's shares commenced trading on the TSX under the symbol "BCHT".

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

The following discussion should be read in conjunction with the unaudited condensed consolidated financial statements and the related notes that appear elsewhere within this report. Certain statements we make under this Item 2 constitute “forward-looking statements” under the Private Securities Litigation Reform Act of 1995. See “Forward-Looking Statements” in “Part I” preceding “Item 1 – Financial Statements.” You should consider our forward-looking statements in light of the risks discussed under the heading “Risk Factors” in Item 1A of Part I of our Annual Report on Form 10-K for the year ended December 31, 2023, as well as our unaudited condensed consolidated financial statements, related notes and other financial information appearing elsewhere in this report and our other filings with the Securities and Exchange Commission.

Unless indicated otherwise, references in this report to the “Company,” “we,” “us,” or “our” refer collectively to Birchtech Corp. (formerly Midwest Energy Emissions Corp.) and its consolidated subsidiaries.

Overview

Business Operations

We are an environmental services and technologies company developing and delivering patented and proprietary solutions to the global power industry, specializing in mercury emissions removal technologies. We provide mercury capture solutions driven by our patented two-part Sorbent Enhancement Additive (“SEA”) technology. Our leading-edge services have been shown to achieve mercury emissions removal at a significantly lower cost and with less operational impact to coal-fired power plants than currently used methods, while maintaining and/or increasing power plant output and preserving the marketability of byproducts for beneficial use.

North America is currently the largest market for our technology. The U.S. EPA MATS (Mercury and Air Toxics Standards) rule requires that all coal and oil-fired power plants in the U.S., larger than 25MWs, must limit mercury in its emissions to below certain specified levels, according to the type of coal burned. Power plants were required to begin complying with MATS on April 16, 2015, unless they were granted a one-year extension to begin to comply. MATS, along with many state and provincial regulations, form the basis for mercury emission capture at coal fired plants across North America. Under the MATS regulation, Electric Generating Units (“EGUs”) are required to remove about 90% of the mercury from their emissions. We believe that we continue to meet the requirements of the industry as a whole and our technologies have been shown to achieve mercury removal levels compliant with all state, provincial and federal regulations at a lower cost and with less plant impact than our competition.

As is typical in this market, we are paid by the EGU based on how much of our material is injected to achieve the needed level of mercury removal. Our current clients pay us as material is delivered to their facilities. Clients will use our material whenever their EGUs operate, although EGUs are not always in operation. EGUs typically may not be in operation due to maintenance reasons or when the price of power in the market is less than their cost to produce power. Thus, our revenues from EGU clients will not typically be a consistent stream but will fluctuate, especially seasonally as the market demand for power fluctuates.

The MATS regulation has been subject to legal challenge since being enacted. In June 2015, the U.S. Supreme Court, in *Michigan v. EPA*, held that the EPA unreasonably failed to consider costs in determining whether it is “appropriate and necessary” to regulate hazardous air pollutants, including mercury, from power plants, but left the rule in place. In April 2016, the EPA issued a supplemental finding in response to the *Michigan* decision and found that, after consideration of costs, it remained appropriate and necessary to regulate such emissions from coal- and oil-fired power plants. In May 2020, the EPA, then under the Trump Administration, reversed the determination, finding that, after weighing the costs of compliance against certain benefits of the regulation, the 2016 supplemental finding was erroneous but left the MATS rule in place. Upon taking office, the Biden Administration in January 2021 directed the EPA to review the previous Administration’s actions on various environmental matters including the withdrawal of the May 2020 “appropriate and necessary” determination, for conformity with Biden Administration environmental policy. On February 9, 2022, the EPA proposed to revoke the May 2020 finding and reaffirm the EPA’s 2016 finding. On February 15, 2023, the EPA reaffirmed that it remains appropriate and necessary to regulate hazardous air pollutants, including mercury, from power plants after considering cost, and revoked the May 2020 finding. On April 3, 2023, the EPA issued a proposal to strengthen and update MATS. Such proposal was finalized on April 25, 2024 which, among other things, strengthens emissions monitoring and compliance and tightens the emission standard for mercury for existing lignite-fired power plants to a level that is aligned with the mercury standard that other coal-fired power plants have been achieving under MATS. Nevertheless, legal challenges may continue in the future with respect to the MATS regulation.

We remain focused on positioning the Company for short and long-term growth, including focusing on execution at our customer sites and on continual operation improvement. We continue to make refinements to all of our key products, as we continue to focus on the customer and its operations. As part of our overall strategy, we have a number of initiatives which we believe will be able to drive our short and long-term growth.

We continue to seek new utility customers for our technology in order for them to meet the MATS requirements as well as maintaining our contractual arrangements with our current customers. We also seek license agreements with utilities while allowing them to use our SEA® technologies without our supply of products. Since 2021, we have announced various supply contract extensions, new supply business and license agreements. We expect additional supply business and license agreements during the remainder of 2024 and thereafter, including converting certain licensees to supply customers.

Patent Litigation

On July 17, 2019, we initiated patent litigation against certain defendants in the U.S. District Court for the District of Delaware for infringement of certain United States patents owned by the Company. These patents relate to our two-part Sorbent Enhancement Additive (SEA®) process for mercury removal from coal-fired power plants. Between July 2020 and January 2021, we entered into agreements with each of the four major utility defendants in such action which included certain monetary arrangements and pursuant to which we have dismissed all claims brought against each of them and their affiliates, and such parties have withdrawn from petitions for Inter Partes Review with the United States Patent and Trademark Office. Such agreements entered into with such parties provide each of them and their affiliates with a non-exclusive license to certain Company patents (related to the Company's two-part Sorbent Enhancement Additive (SEA®) process) for use in connection with such parties' coal-fired power plants.

In May 2021, a U.S. District Court Magistrate Judge issued a report and recommendation which was approved by the District Judge in September 2021 that such litigation should be permitted to proceed against various refined coal defendants named in the action directly involved in the refined coal program and operations, and be dismissed against certain other defendants, primarily affiliated entities of the refined coal operators.

Prior to the jury trial which was scheduled for November 13, 2023, we entered into a confidential binding term sheet on November 9, 2023 with Arthur J. Gallagher & Co., and various of its affiliated entities (collectively "AJG"), and DTE Energy Resources LLC and various of its affiliated entities (collectively "DTE"), to resolve the patent litigation against these two groups of defendants. Pursuant to the term sheet, all claims and counterclaims asserted by the parties in such patent litigation have been dismissed with prejudice, although such term sheet does not affect any other claim brought against the remaining CERT defendants. The financial aspects of the term sheet remain confidential pursuant to its terms.

In addition, effective November 9, 2023, Alistar Enterprises, LLC ("Alistar"), one of the remaining CERT defendants, entered into a settlement agreement with us which provided that all claims and counterclaims asserted in the action between the Company and Alistar be dismissed with prejudice. The financial terms of such settlement remain confidential.

Effective as of December 28, 2023, and in connection with the term sheet described above, we entered into a paid license with (a) Chem-Mod LLC ("Chem-Mod"), (b) Arthur J. Gallagher & Co. and AJG Coal, LLC, and (c) DTE Energy Co. and DTE Energy Resources, LLC, relating to U.S. Patent No. 8,168,147, U.S. Patent No. 10,343,114, U.S. Patent No. 10,589,225, U.S. Patent No. 10,596,517 and U.S. Patent No. 10,668,430 and their foreign equivalents and related patent applications and patents, which licenses the use of refined coal or the Chem-Mod Solution in conjunction with activated carbon. This license applies to Chem-Mod and certain of its licensees, sub-licensees, and their customers, for the remaining term of such patents. By its terms, the license does not cover the use of activated carbon with coal that is not either refined coal or coal made by or for use with the Chem-Mod Solution in a manner authorized by the license. The parties to the license have mutually released all claims that any past use of the Chem-Mod Solution in connection with the production or use of refined coal with activated carbon by entities other than the CERT defendants and their customers infringes the asserted patents and related intellectual property, and all claims that could have been brought challenging the validity of such patents.

The remaining CERT defendants and their customers (for activities relating to the CERT defendants) were not included within the scope of the license. The Court rescheduled the trial as to the claims against the remaining CERT defendants to begin on February 26, 2024.

Following a five-day trial, on March 1, 2024, a federal jury in the U.S. District Court for the District of Delaware awarded a \$57.1 million patent infringement verdict in favor of the Company against the remaining group of CERT defendants. Such group of affiliated defendants included multiple limited liability companies with refined coal industry operations, including CERT Operations II LLC, CERT Operations IV LLC, CERT Operations V LLC, and CERT Operations RCB LLC. The jury determined that these defendants infringed our patented technologies for mercury emissions and were liable for willful infringement, along with inducing and contributory infringement. Post-trial motions and applications are currently ongoing.

In July 2024, we commenced three patent infringement lawsuits against multiple defendants, including coal-fired power utilities, in three separate U.S. District Courts in Arizona, Iowa and Missouri. Such lawsuits claim infringement of our patent rights related to our mercury emissions reduction technologies. Named as defendants in the action filed in the U.S. District Court for the District of Arizona are Tucson Electric Power Co., San Carlos Resources, Inc., Salt River Project Agricultural Improvement and Power District, Tri-State Generation and Transmission Association, Inc., Springerville Unit 3 Holding LLC, and Springerville Unit 3 Partnership LP. Named as defendants in the action filed in the U.S. District Court for the Southern District of Iowa are Berkshire Hathaway Energy Company, MidAmerican Energy Company, PacifiCorp, Alliant Energy Corporation, Interstate Power and Light Company, and Wisconsin Power and Light Company, and named as defendants in the action filed in the U.S. District Court for the Eastern District of Missouri are Ameren Corp. and Union Electric Co. In each lawsuit, we request a trial by jury against the defendants and seek damages, costs, and legal expenses, along with a finding of willful infringement by the defendants, and an injunction prohibiting the defendants from further acts of infringement.

Effective as of October 8, 2024, we entered into agreement with one of the utilities and an affiliated entity named as defendants in the patent infringement lawsuit commenced by us in Arizona action (the “Arizona Action”). Such agreement provides such parties and their affiliates with a non-exclusive license to certain of our patents related to our two-part Sorbent Enhancement Additive (SEA®) process for use in connection with a certain designated coal-fired power plant operated by such utility. The agreement includes a one-time license fee and provides the Company with a right of first refusal for certain of such utility’s product supply for mercury emissions capture at such designated power plant. Such lawsuit will continue against the other non-affiliated defendants named in the Arizona Action.

AC Midwest Energy

On February 27, 2024, we entered into an Unsecured Debt Restructuring Agreement (the “Debt Restructuring Agreement”) with AC Midwest Energy LLC (“AC Midwest”) which replaced and superseded the Unsecured Note Financing Agreement and Reaffirmation of Guaranty entered into with AC Midwest on February 25, 2019, as amended on October 28, 2022 (the “Unsecured Note Financing Agreement”).

Pursuant to the Unsecured Note Financing Agreement, prior to February 27, 2024, AC Midwest was the holder of an unsecured note with a principal amount outstanding of \$13,154,931 which was issued on February 25, 2019 (the “Unsecured Note”). The Unsecured Note was scheduled to mature on August 25, 2025 and bears a zero cash interest rate. Pursuant to the Unsecured Note Financing Agreement, AC Midwest was also entitled to a “non-recourse” profit participation preference equal to \$17,654,931 (the “Profit Share”). Prior to maturity, the outstanding principal, as well as the Profit Share, were to be paid from Net Litigation Proceeds from claims relating to the Company’s intellectual property, Net Revenue Share, Adjusted Free Cash Flow and Equity Offering Net Proceeds (as such terms are defined in the Unsecured Note Financing Agreement). Any remaining principal balance due on the Unsecured Note would be due and payable in full on the maturity date. The Profit Share, however, if not paid in full on or before the maturity date would remain subject to the Unsecured Note Financing Agreement until full and final payment.

Prior to February 27, 2024, there also remained outstanding to AC Midwest a principal balance of \$271,686 due under a secured noted of the Company issued on November 29, 2016 in the original principal amount of \$9,646,686, which had a maturity date of August 25, 2025 (the “Secured Note”). The Secured Note had been issued pursuant to an Amended and Restated Financing Agreement and Reaffirmation of Guaranty, dated as of November 1, 2016, as amended on June 14, 2018, September 12, 2019, February 25, 2019 and October 28, 2022 (the “Restated Financing Agreement”).

Pursuant to the Debt Restructuring Agreement, on February 27, 2024, we (i) paid AC Midwest \$9,040,000 as a reduction in the outstanding principal balance of the Unsecured Note, (ii) issued to AC Midwest a new unsecured replacement note representing the remaining outstanding principal balance of the Unsecured Note in the principal amount of \$4,114,931 (the “New Note”), and (iii) paid AC Midwest \$275,626 representing the remaining principal balance under the Secured Note of \$271,686 plus interest of \$3,939. In addition, within 30 days, we would either facilitate the private sale to third parties of certain shares of common stock of the Company held by AC Midwest for a purchase price of no less than \$960,000, which amount shall be applied as a credit against the principal balance due on the New Note dollar for dollar, or pay AC Midwest \$960,000 toward the principal balance due on the New Note. The private sale of shares for the purchase price of \$960,000 was completed on March 11, 2024. Any remaining principal balance on the New Note shall be due August 27, 2024 (the “Maturity Date”), which is six months from February 27, 2024. Until repaid in full, the New Note shall accrue interest at a rate equal to SOFR plus 2.0% per annum. The New Note completely replaced and superseded the Unsecured Note, which shall be of no further force and effect.

On August 26 and 27, 2024, the Company repaid AC Midwest the remaining principal of \$3,154,931 on the New Note together with accrued interest of \$119,964. As a result, the only remaining debt obligation under the Debt Restructuring Agreement is the profit participation as described below.

Pursuant to the Debt Restructuring Agreement, AC Midwest shall be entitled to a profit participation preference equal to \$7,900,000 (the “Restructured Profit Share”). The Restructured Profit Share is “non-recourse” and shall only be paid from Net Litigation Proceeds (as defined in the Debt Restructuring Agreement) from claims relating to our intellectual property. Following the receipt of any Net Litigation Proceeds, we shall prepay any remaining principal balance of the New Note and pay the Restructured Profit Share in an amount equal to 75.0% of such Net Litigation Proceeds until the New Note and Restructured Profit Share have been paid in full. The Restructured Profit Share completely replaces and supersedes the terms and conditions of the Profit Share in the amount of \$17,654,931 provided for in the Unsecured Note Financing Agreement, which shall be of no further force and effect. The Restructured Profit Share, if not paid in full on or before the Maturity Date, shall remain subject to the terms of the Debt Restructuring Agreement.

In addition to facilitating the private sale to third parties as described above, AC Midwest has granted the Company the exclusive right until December 31, 2024 to facilitate the sale of all or a portion of the remaining balance of the shares of common stock of the Company held by AC Midwest, which proceeds above a certain amount will be applied as a credit against the Restructured Profit Share dollar for dollar. This has the potential to pay off the Restructured Profit Share in full although we cannot guarantee that such result will be achieved.

As a result of the repayment of the remaining principal balance under the Secured Debt, we and AC Midwest executed a Satisfaction and Discharge of Secured Debt confirming the cancellation of the Secured Note and that all of the obligations under the Restated Financing Agreement have been fully satisfied and discharged.

Other Developments

We are in the process of developing other business opportunities which include drinking water treatment technologies and remediation technologies for wastewater and coal ash from coal-fired power plants. We believe the market for water treatment is large and significantly growing both in the United States and abroad. This expansion in water treatment and wastewater remediation will allow us to support the growing needs of the energy sector, as well as provide vital technologies for considerable environmental concerns. In October 2024, we announced the opening of two new laboratories, located in Grand Forks, North Dakota, and in State College, Pennsylvania to support these efforts.

In April 2024, the EPA issued the first-ever national, enforceable drinking water standard, a move to protect communities from exposure to harmful per-and polyfluoroalkyl substances (PFAS), also known as “forever chemicals”. The EPA rule requires public water systems to monitor for six PFAS chemicals, giving them three years to complete the initial monitoring by 2027.

In May 2024, we announced the appointment of David Mazyck as Division Director of WE₂C Environmental, a new division of the Company focused on PFAS removal from potable water. Dr. Mazyck will oversee the development of WE₂C’s activated carbon technologies for the removal of PFAS for water treatment utilities.

In addition, in May 2024, we announced the appointment of Dennis Baranik as Director of National Sales. Mr. Baranik will oversee product sales and IP licensing in the Company's core business for mercury emissions capture as well as support both product and business development for WE₂C Environmental.

Effective on October 17, 2024, as part of our rebranding, Midwest Energy Emissions Corp. changed its corporate name to Birchtech, Inc. pursuant to a certificate of amendment to its certificate of incorporation filed with the State of Delaware, and on October 17, 2024 our common stock commenced trading under the ticker symbol "BCHT".

On October 9, 2024, we received conditional approval to list our shares of common stock on the Toronto Stock Exchange ("TSX") and graduate from the TSX Venture Exchange ("TSXV") to the TSX. The listing is subject to our fulfilling certain requirements of the TSX in accordance with the terms of the conditional approval letter. On November 12, 2024, our shares commenced trading on the TSX under the ticker symbol "BCHT".

Results of Operations

Revenues

We generated revenues of approximately \$5,237,000 and \$6,747,000 for the three months ended September 30, 2024 and 2023, respectively, and approximately \$12,155,000 and \$13,872,000 for the nine months ended September 30, 2024 and 2023, respectively. Such revenues were primarily derived from sorbent product sales which were approximately \$5,092,000 and \$6,700,000 for the three months ended September 30, 2024 and 2023, respectively and approximately \$11,479,000 and \$13,104,000 for the nine months ended September 30, 2024 and 2023, respectively. The decrease in revenues from prior year periods is primarily due to the mix of plants running in 2024 to date resulting in decreased revenues for the three and nine months ended September 30, 2024.

Licensing revenues were approximately \$133,100 and \$52,500 for the three months ended September 30, 2024 and 2023, respectively and approximately \$588,800 and \$671,000 for the nine months ended September 30, 2024 and 2023, respectively. Licensing revenues have decreased in the first nine months of 2024 compared to the prior year period.

Equipment sales and other revenues for the three months ended September 30, 2024 and 2023 were approximately \$2,700 and \$(4,800), respectively and approximately \$60,300 and \$15,800 for the nine months ended September 30, 2024 and 2023, respectively. These slightly increased from the prior year but they still only make up an immaterial portion of the Company's revenues.

Costs and Expenses

Total costs and expenses were approximately \$6,001,000 and \$7,575,000 during the three months ended September 30, 2024 and 2023, respectively and approximately \$21,638,000 and \$16,911,000 during the nine months ended September 30, 2024 and 2023, respectively. The decrease in total costs and expenses for three months ended September 30, 2024 is primarily attributable to a gain on change in fair value of profit share offset by an increase in selling, general and administrative expenses. The increase in total costs and expenses for the nine months ended September 30, 2024 is primarily attributable to the increase in selling, general and administrative expenses and a loss on change in fair value of profit share which is a non-cash expense.

Cost of sales were approximately \$3,642,000 and \$4,472,000 for the three months ended September 30, 2024 and 2023, respectively, and approximately \$8,056,386 and \$9,118,000 during the nine months ended September 30, 2024 and 2023, respectively. This decrease in cost of sales of approximately \$1,062,000 for nine months is primarily attributable to a decrease in sales offset by a decrease in the Company's cost of carbon in the first nine months of 2024 compared to the prior year period.

Selling, general and administrative expenses were approximately \$2,702,000 and \$2,459,000 for the three months ended September 30, 2024 and 2023, respectively. Selling, general and administrative expenses were approximately \$10,863,000 and \$6,160,000 for the nine months ended September 30, 2024 and 2023, respectively. Such increase was primarily due to an increase in salaries and wages, including the payment and accrual of bonus compensation and engagement of new senior personnel, along with stock-based compensation for the first nine months of 2024 compared to the prior year periods.

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Interest expense related to the financing of capital was approximately \$7,400 and \$344,000 for the three months ended September 30, 2024 and 2023, respectively and \$259,000 and \$1,019,000 for the nine months ended September 30, 2024 and 2023. The breakdown of interest expense for the three and nine months ended September 30, 2024 and 2023 is as follows:

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2024	2023	2024	2023
	(In thousands)		(In thousands)	
Interest expense on notes payable	\$ -	\$ 6	\$ 4	\$ 18
Amortization of discount of notes payable	-	337	242	999
Interest on RoU and other	7	1	13	2
	<u>\$ 7</u>	<u>\$ 344</u>	<u>\$ 259</u>	<u>\$ 1,019</u>

Gain (Loss) on change in fair value of profit share liability and unsecured note was approximately \$282,000 and (\$300,000) for the three months ended September 30, 2024 and 2023, respectively and (\$2,672,000) and (\$613,000) for the nine months ended September 30, 2024 and 2023, respectively. The change is primarily attributed to the modification of the terms of the profit share liability (see Note 7 to the unaudited condensed consolidated financial statements).

Net Loss

For the three months ended September 30, 2024, we had a net loss of approximately \$470,000 compared to a net loss of approximately \$828,000 for the three months ended September 30, 2023. For the nine months ended September 30, 2024, we had a net loss of approximately \$9,189,000 compared to a net loss of approximately \$3,039,000 for the nine months ended September 30, 2023. Such change was primarily due to the increase in selling, general and administrative expenses and an increase in the change in value of the profit share liability, offset by an increase in gross profit.

Liquidity and Capital Resources

We had approximately \$4,394,000 in cash on our balance sheet at September 30, 2024 compared to approximately \$20,940,000 at December 31, 2023. Total current assets were approximately \$7,591,000 and total current liabilities were approximately \$3,987,000 at September 30, 2024, resulting in working capital of approximately \$3,604,000. This compares to total current assets of approximately \$24,152,000 and total current liabilities of approximately \$2,183,000 at December 31, 2023, resulting in working capital of approximately \$21,969,000. Our accumulated deficit was approximately \$72.0 million at September 30, 2024 compared to approximately \$62.8 million at December 31, 2023. Additionally, we had a net loss in the amount of approximately \$9,189,000 and cash used in operating activities of approximately \$3,275,000 for the nine months ended September 30, 2024.

Total Assets

Total assets were approximately \$11,655,000 at September 30, 2024 versus approximately \$27,468,000 at December 31, 2023. The change in total assets is primarily attributable to a decrease in cash and accounts receivable.

Total Liabilities

Total liabilities were approximately \$9,741,000 at September 30, 2024 versus approximately \$28,250,000 at December 31, 2023. The decrease is primarily attributable to a decrease in outstanding debt as a result of the modification of the terms of the profit share liability, the repayment of the secured note and the repayment of the unsecured note.

Operating Activities

Net cash provided by operating activities consists of net loss, adjusted by certain non-cash items, and changes in operating assets and liabilities.

Net cash used by operating activities was approximately \$3,275,000 for the nine months ended September 30, 2024 compared to net cash provided by operating activities of approximately \$786,000 for the nine months ended September 30, 2023.

Investing Activities

Net cash used in investing activities for the nine months ended September 30, 2024 was approximately \$702,000. During the nine months ended September 30, 2024, we paid \$702,000 to purchase a truck and lab equipment. There was \$3,000 net cash used in investing activities for the nine months ended September 30, 2023.

Financing Activities

Net cash utilized in financing activities was approximately \$12,569,000 for the nine months ended September 30, 2024 compared to approximately \$210,000 provided by financing activities for the nine months ended September 30, 2023. During the nine months ended September 30, 2024, we repaid \$272,000 of the AC Midwest secured note and \$12,194,931 of the AC Midwest unsecured note. During the nine months ended September 30, 2024 and 2023, we received approximately \$17,500 and \$210,000 respectively, from the exercise of stock options.

Critical Accounting Policies and Estimates

Our critical accounting policies and estimates are discussed in our Annual Report on Form 10-K for the year ended December 31, 2023, and there have been no material changes to such policies or estimates during the nine months ended September 30, 2024.

Non-GAAP Financial Measures

Adjusted EBITDA

To supplement our unaudited condensed consolidated financial statements presented in accordance with GAAP and to provide investors with additional information regarding our financial results, we consider and are including herein Adjusted EBITDA, a Non-GAAP financial measure. We view Adjusted EBITDA as an operating performance measure and, as such, we believe that the GAAP financial measure most directly comparable to it is net income (loss). We define Adjusted EBITDA as net income adjusted for interest and financing fees, income taxes, depreciation, amortization, stock-based compensation, and other non-cash income and expenses. We believe that Adjusted EBITDA provides us an important measure of operating performance because it allows management, investors, debtholders and others to evaluate and compare ongoing operating results from period to period by removing the impact of our asset base, any asset disposals or impairments, stock-based compensation and other non-cash income and expense items associated with our reliance on issuing equity-linked debt securities to fund our working capital.

Our use of Adjusted EBITDA has limitations as an analytical tool, and this measure should not be considered in isolation or as a substitute for an analysis of our results as reported under GAAP, as the excluded items may have significant effects on our operating results and financial condition. Additionally, our measure of Adjusted EBITDA may differ from other companies' measure of Adjusted EBITDA. When evaluating our performance, Adjusted EBITDA should be considered with other financial performance measures, including various cash flow metrics, net income and other GAAP results. In the future, we may disclose different non-GAAP financial measures in order to help our investors and others more meaningfully evaluate and compare our future results of operations to our previously reported results of operations.

The following table shows our reconciliation of net loss to adjusted EBITDA for the three and nine months ended September 30, 2024 and 2023, respectively:

	For the Three Months Ended		For the Nine Months Ended	
	September 30, 2024	September 30, 2023	September 30, 2024	September 30, 2023
	(In thousands)		(In thousands)	
Net loss	\$ (470)	\$ (828)	\$ (9,189)	\$ (3,039)
Non-GAAP adjustments:				
Depreciation and amortization	65	72	185	195
Interest	7	344	259	1,019
Change in fair value of profit share	(283)	300	2,672	613
Income taxes	-	-	-	-
Stock based compensation	134	70	1,041	390
Adjusted EBITDA	<u>\$ (547)</u>	<u>\$ (42)</u>	<u>\$ (5,032)</u>	<u>\$ (822)</u>

Item 3. Quantitative and Qualitative Disclosures about Market Risk.

We are a smaller reporting company as defined by Rule 12b-2 of the Securities Exchange Act of 1934 and are not required to provide the information under this item.

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 officer, we have evaluated the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) and Rule 15d-15(e) of the Exchange Act) as of the end of the period covered by this report. Disclosure controls and procedures are designed to ensure that information required to be disclosed in reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms, and that such information is accumulated and communicated to management, including our principal executive officer and principal financial officer, to allow timely decisions regarding required disclosure. Based on that evaluation, our principal executive officer and principal financial officer concluded, as of the end of the period covered by this report, that the Company's disclosure controls and procedures were not effective as a result of material weaknesses in our internal control over financial reporting. The ineffectiveness of our disclosure controls and procedures was due to the following material weaknesses in our internal control over financial reporting: (i) lack of a sufficient complement of personnel commensurate with the Company's reporting requirements; and (ii) insufficient written documentation or training of our internal control policies and procedures which provide staff with guidance or framework for accounting and disclosing financial transactions.

Despite the existence of the material weaknesses above, we believe that the consolidated financial statements contained in this Form 10-Q fairly present our financial position, results of operations and cash flows as of and for the periods presented in all material respects.

Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15 (f) under the Exchange Act) during the fiscal quarter covered by this report that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

Item 1. Legal Proceedings.

See Note 9 “Commitments and Contingencies” to our unaudited condensed consolidated financial statements included in Part I, Item 1 of this report for a summary of our legal proceedings, which is incorporated by reference herein.

Item 1A. Risk Factors.

We are a smaller reporting company as defined by Rule 12b-2 of the Securities Exchange Act of 1934 and are not required to provide the information under this item.

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

On August 3, 2024, the Company issued 32,112 shares of common stock to a former consultant upon a cashless exercise of an option to purchase 62,500 shares of common stock, with an exercise price of \$0.40 per share. Such share issuance was based upon a VWAP of \$0.8227 per share as determined under the terms of the option.

On August 5, 2024, the Company issued 66,666 shares of common stock to a certain warrant holder upon the cashless exercise of a warrant to purchase 400,000 shares of common stock at an exercise price of \$0.70 per share based upon a market value of \$0.84 per share as determined under the terms of the warrant.

On August 22, 2024, the Company issued 25,000 shares of common stock to a certain warrant holder upon a cash exercise of a warrant to purchase 25,000 shares of common stock at an exercise price of \$0.70 per share or \$17,500 in the aggregate.

The foregoing securities were issued in reliance upon the exemption from registration pursuant to Section 4(a)(2) of the Securities Act of 1933, as amended (the “1933 Act”), and where applicable, under Section 3(a)(9) of the 1933 Act.

Item 3. Default Upon Senior Securities.

Not applicable.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

None.

Item 6. Exhibits.

Exhibit Number	Description
31.1*	Certification by Principal Executive Officer, required by Rule 13a-14(a) or Rule 15d-14(a) of the Exchange Act
31.2*	Certification by Principal Financial Officer, required by Rule 13a-14(a) or Rule 15d-14(a) of the Exchange Act
32.1*	Certification by Principal Executive Officer, required by Rule 13a-14(b) or Rule 15d-14(b) of the Exchange Act and Section 1350 of Chapter 63 of Title 18 of the United States Code
32.2*	Certification by Principal Financial Officer, required by Rule 13a-14(b) or Rule 15d-14(b) of the Exchange Act and Section 1350 of Chapter 63 of Title 18 of the United States Code
101.INS*	Inline XBRL Instance Document
101.SCH*	Inline XBRL Taxonomy Extension Schema Document
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104*	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101)

* Filed herewith.

SIGNATURES

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

BIRCHTECH CORP.

Dated: November 14, 2024

By: /s/ Richard MacPherson
Richard MacPherson
President and Chief Executive Officer
(Principal Executive Officer)

Dated: November 14, 2024

By: /s/ Fiona Fitzmaurice
Fiona Fitzmaurice
Chief Financial Officer
(Principal Financial Officer)

CERTIFICATION

I, Richard MacPherson, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Birchtech Corp.;
2. Based on my knowledge, this report does not contain any untrue statements of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiary, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation;
 - (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 (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonable 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.

Dated: November 14, 2024

By: /s/ Richard MacPherson
Richard MacPherson,
President and Chief Executive Officer
(Principal Executive Officer)

CERTIFICATION

I, Fiona Fitzmaurice, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Birchtech Corp.;
2. Based on my knowledge, this report does not contain any untrue statements of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiary, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation;
 - (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 (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonable 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.

Dated: November 14, 2024

By: /s/ Fiona Fitzmaurice
Fiona Fitzmaurice
Chief Financial Officer
(Principal Financial Officer)

**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 Birchtech Corp. (the "Company") on Form 10-Q for the period ended September 30, 2024, as filed with the Securities and Exchange Commission (the "Report"), the undersigned certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to the best of the undersigned's knowledge, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: November 14, 2024

By: /s/ Richard MacPherson

Richard MacPherson,
President and Chief Executive Officer
(Principal Executive Officer)

**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 Birchtech Corp. (the “Company”) on Form 10-Q for the period ended September 30, 2024, as filed with the Securities and Exchange Commission (the “Report”), the undersigned certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to the best of the undersigned’s knowledge, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: November 14, 2024

By: /s/ Fiona Fitzmaurice

Fiona Fitzmaurice
Chief Financial Officer
(Principal Financial Officer)